

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

**IN THE MATTER OF THE APPLICATION OF THE)
EMPIRE DISTRICT ELECTRIC COMPANY FOR)
APPROVAL OF THE COMMISSION TO MAKE) KCC DOCKET NO. 19-EPDE-223-RTS
CERTAIN CHANGES IN ITS CHARGES FOR)
ELECTRIC SERVICE.)**

DIRECT TESTIMONY AND EXHIBITS OF

JAMES S. GARREN

RE: DEPRECIATION RATES

ON BEHALF OF

THE CITIZENS' UTILITY RATEPAYER BOARD

MAY 13, 2019

DIRECT TESTIMONY AND EXHIBITS
OF JAMES S. GARREN

Contents

A. INTRODUCTION 2
B. SUMMARY 3
C. DISCUSSION OF SERVICE LIVES FOR MASS PROPERTY ACCOUNTS 8
D. DISCUSSION OF WHOLE LIFE VERSUS REMAINING LIFE 21
E. ELIMINATION OF FORECASTED ADDITIONS FOR PRODUCTION PLANT 24
F. DISCUSSION OF NET SALVAGE 25
G. CONCLUSION..... 36

1 **A. INTRODUCTION**

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

3 A. My name is James S. Garren. I am an analyst with the economic consulting firm of Snavelly
4 King Majoros & Associates, Inc. ("Snavelly King").

5 **Q. HAVE YOU PREPARED A SUMMARY OF YOUR QUALIFICATIONS AND**
6 **EXPERIENCE?**

7 A. Yes. Attachment A is a summary of my qualifications and experience.

8 **Q. PLEASE DESCRIBE YOUR BACKGROUND IN UTILITY DEPRECIATION.**

9 A. Since my employment at Snavelly King in 2010, I have participated as an analyst in
10 approximately 35 separate depreciation studies of electric, gas and water utilities on behalf
11 of the firm's clients, most of which are state commissions or state-funded consumer
12 advocate agencies. In that role, I have worked closely with the firm's principals in
13 performing life and net salvage analyses, calculation of depreciation rates, and preparation
14 of testimony. Additionally, I am familiar with the firm's proprietary depreciation software,
15 the Snavelly Comprehensive Investment Analysis System ("SCIAS"). I am also recognized
16 as a Certified Depreciation Professional by the Society of Depreciation Professionals.¹

¹ "The Society of Depreciation Professionals was organized in 1987 to recognize the professional field of depreciation analysis and individuals contributing to this field; to promote the professional development and professional ethics of practitioners in the field of depreciation analysis; to collect and exchange information about depreciation analysis; and to provide a national forum of programs and publications concerning depreciation." <http://www.depr.org/?page=AboutUs> . For certification, an applicant must have at least 5 years of full time professional depreciation experience, at least 2 years of which must be in the area of depreciation administration. Among other requirements, the applicant must pass a two part (Technical and Ethics) closed book examination which includes questions about, *inter alia*, Plant and Reserve Accounting, Life Analysis Concepts, Life Analysis Using Actuarial Models, Life Analysis Using Simulation Models, Salvage and Cost of Retiring Analysis, Technology Forecasting and Depreciation Calculations." <http://www.depr.org/?page=Certification>

1 **Q. FOR WHOM ARE YOU APPEARING IN THIS PROCEEDING?**

2 A. I am appearing on behalf of the Kansas Citizens' Utility Ratepayer Board ("CURB").

3 **Q. WHAT IS THE OBJECTIVE OF YOUR TESTIMONY?**

4 A. Empire District Electric ("EDE" or "the Company") has filed an Application to change its
5 rates with the Kansas Corporation Commission ("KCC" or "the Commission"). In its
6 Application, the Company included two Depreciation Studies with accompanying Direct
7 Testimony. The objective of my testimony is to detail my analysis of the Company's
8 Depreciation Studies regarding average service lives and net salvage for Production,
9 Transmission, Distribution and General plant.

10 **B. SUMMARY**

11 **Q. WHAT INFORMATION HAVE YOU REVIEWED IN PREPARATION FOR THIS**
12 **TESTIMONY?**

13 A. I have reviewed the written direct testimony and exhibits of Mr. Thomas J. Sullivan of
14 Navillus Utility Consulting, who presents testimony on the Company's Depreciation
15 Studies that were conducted in 2015 based on plant balances at December 31, 2014. Mr.
16 Sullivan's recommendations were ultimately applied in this case to the Company's test
17 year plant balances at June 30, 2018. Upon examination of this testimony and the
18 underlying studies, I prepared numerous data requests which were propounded to EDE by
19 CURB at my request. In addition, on April 3rd, I had the opportunity to accompany EDE
20 employees, as well as Roxie McCullar of Dunkel and Associates, and other members of
21 Commission Staff on a visit to observe several transmission and distribution substations
22 and breakers, as well as a tour of its Energy Center combustion turbine and State Line
23 combined cycle production facilities.

1 I have now had the opportunity to review EDE's responses to these data requests as well
2 as the documents attached to EDE's filing. In response to some of the data requests, CURB
3 has been provided the depreciation data Mr. Sullivan used to perform his studies. I used
4 this data along with information obtained through discovery and the field trip to conduct
5 my own analysis. As a result, I am proposing certain adjustments to Mr. Sullivan's
6 proposed depreciation rates and accruals for plant depreciation.

7 **Q. ARE YOUR PROPOSED DEPRECIATION RATES AND EXPENSES HIGHER**
8 **OR LOWER THAN MR. SULLIVAN'S?**

9 **A.** In general, my proposed depreciation rates, and resulting annual depreciation expenses are
10 lower than Mr. Sullivan's for most accounts.

11 **Q. IN BRIEF, WHY ARE YOUR PROPOSED DEPRECIATION RATES LOWER**
12 **THAN MR. SULLIVAN'S?**

13 **A.** My depreciation rates are lower than those proposed by Mr. Sullivan for four principle
14 reasons. First, I have adjusted the average service lives used to calculate rates for two
15 transmission accounts, Account 353 - Station Equipment and Account 355 - Poles and
16 Fixtures, as well as all eleven of the depreciable distribution accounts, Account 361 -
17 Structures and Improvements, 362 - Station Equipment, 364 - Poles Towers and Fixtures,
18 365 - Overhead Conductors and Devices, 366 - Underground Conduit, 367 - Underground
19 Conductors and Devices, 368 Line Transformers, 369 - Services, 370 - Meters, 371
20 Installations on Cust. Premises and 373 Street Lighting and Signal Systems. Second, I am
21 proposing that the Company utilize the remaining life technique for calculating its
22 depreciation rates for mass property accounts. This has the effect of lowering the

1 company's depreciation rates because it has been over depreciating in the past. Third, I
2 have recalculated the Company's depreciation rates for production and disallowed the
3 inclusion of forecast additions and retirements in the calculation of depreciation rates.
4 Fourth and finally, I have proposed to adopt an alternative method of estimating future net
5 salvage, which is based on the most recent five-year history of the Company's net salvage
6 experience.

7 **Q. WOULD YOU PLEASE SUMMARIZE THE TOTAL IMPACT OF THE**
8 **ADJUSTMENTS YOU HAVE MADE?**

9 Yes. Please refer to the table below for comparison of the depreciation rates and expenses:

10
11 **Table JSG-1**

12
13 **Summary of Depreciation Rates and Expenses**
14 **Based on June 30, 2015 Plant Balances**

15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31

	<u>EDE</u> <u>Rate</u>	<u>EDE</u> <u>Expense</u>	<u>CURB</u> <u>Rate</u>	<u>CURB</u> <u>Expense</u>	<u>Adjustment</u>
Production	2.99%	\$1,896,364	2.69%	\$1,707,052	(\$189,312)
Distribution	3.40%	\$1,820,364	1.66%	\$889,058	(\$931,306)
General	5.19%	\$232,809	4.90%	\$220,073	(\$12,736)
Total	2.84%	\$3,949,538	2.02%	\$2,816,184	(\$1,133,354)

1 **Q. ARE YOU SPONSORING ANY EXHIBITS IN CONJUNCTION WITH THIS**
2 **TESTIMONY?**

3 **A.** Yes. I have prepared these Exhibit JSG-1, Schedule 1 summarizes the rates and expenses
4 of all production accounts for each production unit. Exhibit JSG-1, Schedule 2 shows the
5 calculation of depreciation rates and expenses for all mass property accounts. Exhibit JSG-
6 1, Schedule 3 shows the calculation of total future net salvage. Exhibit JSG-2 contains the
7 service life analysis for the accounts which I am proposing to adjust. Exhibit JSG-3
8 contains the calculation of depreciation rates for each production unit.

9 **Q. CAN YOU SUMMARIZE THE ISSUES THAT YOU ARE GOING TO BE**
10 **ADDRESSING IN THIS TESTIMONY?**

11 **A.** Yes. In this testimony, I will be addressing four issues. First, is the selection of average
12 service lives for electric plant. Second, I will discuss the proposed change from whole life
13 to the remaining life methodology for mass property accounts. Third, I will discuss the
14 elimination of forecasted additions and retirements from the calculation of depreciation
15 rates. Finally, I will discuss the estimation of future net salvage.

16 Life Analysis

- 17 • I am proposing to adjust the average service lives of two transmission accounts and
18 eleven distribution accounts. I am proposing to decrease the average service life for
19 one account, and increase the average service life for twelve accounts.
- 20 • My proposed increases to average service lives are in line with the Company's
21 historical data.

- 1 • My proposed increases to average service lives are also in keeping with long run
2 expectations from improvements to the Company's maintenance and replacement
3 practices for mass property accounts.
- 4 • The average age of plant in most accounts is relatively low based on my experience.
5 In several cases, R-shaped curves have been proposed where L-shaped curves are the
6 best fit. This is consistent with the expectation that these accounts will experience
7 greater retirements as they age. On balance, this results in slightly lower remaining
8 lives.

9 Remaining Life for Mass Property

- 10 • I am proposing the remaining life method of calculating depreciation rates for mass
11 property accounts. This method is more in line with practices throughout the industry.
12 It is also superior, as the remaining life method provides a natural long term protection
13 against over or under-recovery of depreciation. This results in a fairly significant
14 decrease to the Company's depreciation rates in this case.

15 Disallowance of forecasted additions from depreciation rates for production

- 16 • While I have allowed the inclusion of forecasted additions that are known and specific
17 and included in the Capital Budget, I have disallowed all normalized forecast
18 additions. It is inappropriate to include plant that is not used and useful into
19 depreciation expense.

20 Net Salvage Analysis

- 1 • I am proposing to adopt a method that utilizes the most recent five-year average of
2 recorded net salvage to estimate required annual accruals and future net salvage over
3 the remaining life of plant.
- 4 • This method is superior to the alternative method proposed by Mr. Sullivan because it
5 matches future estimates to the Company's actual experience.
- 6 • Mr. Sullivan's proposed method is flawed due to reliance on a ratio of two numbers,
7 net salvage and retirements, that are not related, resulting in unreliable future
8 indications.
- 9 • The ratio Mr. Sullivan is proposing also utilizes numbers from two different time
10 periods, resulting in the inclusion of significant inflation that should not be charged to
11 ratepayers.

12 **C. DISCUSSION OF SERVICE LIVES FOR MASS PROPERTY ACCOUNTS**

13 **Q. WOULD YOU PLEASE EXPLAIN YOUR ADJUSTMENT TO SERVICE LIVES?**

14 A. I have identified thirteen accounts where I believe Mr. Sullivan's proposed average service
15 lives vary from the historical indications. Because each of these adjustments is relatively
16 small on its own, I will eschew discussion of the individual accounts and simply discuss
17 my service life analysis generally.

18 I have reviewed Mr. Sullivan's testimony, workpapers and responses to data
19 requests to understand Mr. Sullivan's rationales for instances where he deviates from the
20 historical indications, but Mr. Sullivan has not provided detailed explanations for his
21 selections. Reviewing Mr. Sullivan's Table 6-1, we can see that Mr. Sullivan has himself
22 proposed to adjust quite a few of the average service lives for mass property accounts. Mr.

1 Sullivan has proposed to increase the average service lives of one Transmission account,
2 nine Distribution accounts, and six General accounts, and decrease the average service
3 lives for one Transmission account, and two general accounts.

4 In general, Mr. Sullivan has done well to acknowledge that the Company's existing average
5 service lives are significantly too short on average. This is reflected in the significantly
6 excessive depreciation reserves, which show that the Company has been over-depreciating
7 their mass property accounts relative to their retirement experience. This will become
8 relevant when we consider the proposed change from whole life to remaining life method
9 for calculating depreciation rates. However, Mr. Sullivan's proposals do not go far enough
10 to align the Company's depreciation rate with its retirement experience.

11 **Q. PLEASE DEFINE "AVERAGE SERVICE LIFE" AS IT IS USED IN UTILITY**
12 **DEPRECIATION CALCULATIONS.**

13 A. The "average service life" for a given account is a projection of the number years that a
14 new unit of plant can be expected to remain used and useful on average. This concept is
15 useful because modern depreciation utilizes what we call "group depreciation." Rather
16 than depreciate the value of an individual unit or units over the lifetime of those units, we
17 depreciate the value of a collection of units. This group depreciation assumes that many
18 units in each account will be retired at earlier ages, and thus have a shorter than average
19 life, and many units will retire at later ages, and thus have a longer than average life.
20 Average service life is used to calculate the average remaining life, which, in turn, is the
21 denominator in the calculation of depreciation expense. Group depreciation is also why
22 we do not study the lives of units in an account, but rather, the lives of dollars in these

1 accounts. Therefore, all else being equal, a longer average service life directly results in a
2 lower depreciation expense.

3 **Q. PLEASE DESCRIBE THE PROPER WAY TO DETERMINE THE AVERAGE**
4 **SERVICE LIFE COMPONENT OF DEPRECIATION RATES.**

5 A. I have analyzed EDE's distribution accounts using an actuarial life analysis process called
6 the Retirement Rate method. Actuarial methodologies were developed initially in the 17th
7 and 18th centuries, primarily by life insurance companies that needed mathematical means
8 of estimating the mortality risk of individuals over a long period of time. This resulted in
9 the development of "life tables," which show the mortality risk of a group of individuals
10 with similar risk factors at each age.

11 The Retirement Rate method is an actuarial technique used to study plant lives,
12 much like the actuarial techniques used in the insurance industry to study human lives. It
13 requires a record of the dates of placement (birth) and retirement (death) for each asset unit
14 studied. Retirement data that contains this date of placement and retirement is referred to
15 as "aged data" because it tells the analyst the age of the plant at the time it was retired. The
16 Retirement Rate method is the most sophisticated of the statistical life analysis methods
17 because it relies on the most refined level of data.

18 In the Retirement Rate method, aged retirement data as described above, and total
19 plant in service at a given age (referred to collectively as "exposures") from a company's
20 records are used to construct an observed or original life table ("OLT"). I discuss the
21 composition of an observed life table in detail below, but the details are important because
22 they result in data points showing the percentage of a given unit of plant that is expected
23 to survive at a given age. The actuarial analysis smooths and extends the observed life

1 table by fitting it to a family of 31 standardized survivor curves (“Iowa curves”). The
2 curve-fitting uses the least squared differences approach to find a best fit life for each curve.
3 The “sum of least squared difference” is a common means of fitting curves (in this case the
4 Iowa curves) to a set of data (in this case the observed life table data). The difference
5 between each point of data and a point on a line is squared, and the square of all those
6 differences is summed to provide the total difference between the set of data and the line.
7 The line that produces the least difference from the set of data is considered the “best fit.”
8 The purpose of squaring the difference is to ensure that negative differences contribute to
9 the overall difference rather than canceling out positive differences.

10 Numerous iterative calculations are required for a Retirement Rate analysis. In the
11 end, the analysis produces a life and Iowa curve best fit for a single average vintage. My
12 understanding is that this is the same type of life analysis that EDE performed for its
13 depreciation studies.

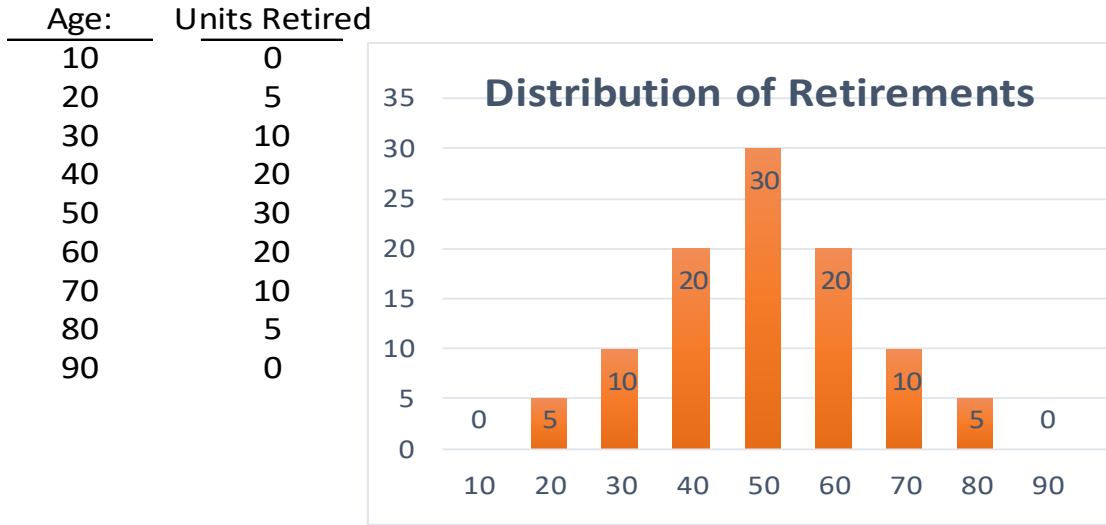
14 **Q. WHAT ARE IOWA CURVES?**

15 A. An Iowa curve is a surrogate or standardized observed life table based on a specific pattern
16 of retirements around an average service life. The Iowa curves were devised over 60 years
17 ago at Iowa State University. The curves provide a set of standard patterns of retirement
18 dispersion. Retirement dispersion merely recognizes that accounts are comprised of
19 individual assets or units having different lives.

20 For example, imagine an account that begins with a new addition of one hundred
21 units. These units are unlikely to all retire at the same time. Rather, different units within
22 the group will retire at different times. Represented graphically, the result might appear as
23 follows:

1

Graph JSG-1



2

3

In this example, the average service life would be fifty, and the retirement dispersion curve would tell us how the retirements are arranged around the average service life. In this example, the distribution of retirements around the average service life is symmetrical, with the “mode,” or the age with the highest number of retirements, being at the average service life. In this data, the retirements are also relatively tightly grouped around the average service life.

6

7

8

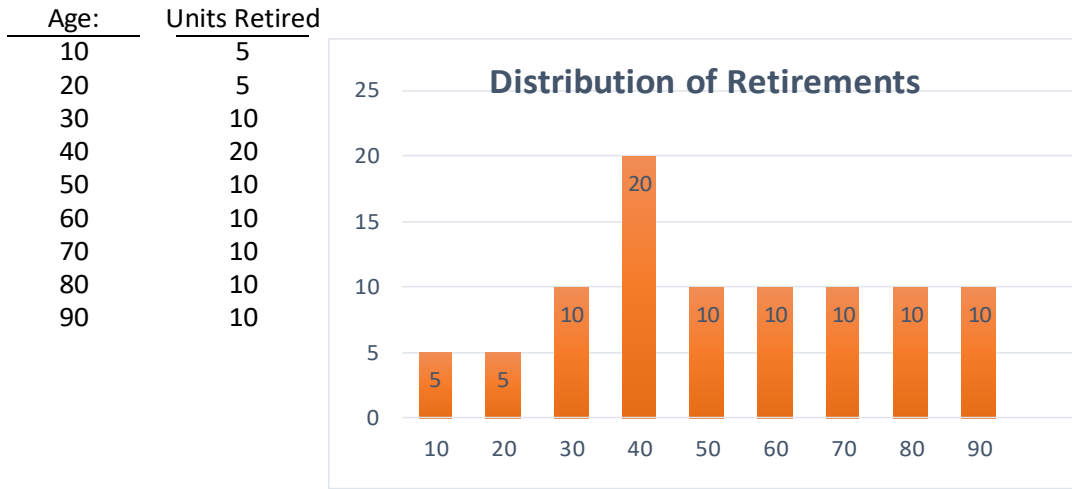
9

10

Iowa curves describe many different patterns of dispersions. Returning to our example, imagine a different pattern of retirements as follows:

1

Graph JSG-2



2

3 In this example, the average service life is still fifty, but the dispersion characteristics are
4 very different. The mode is at age 40, which is an earlier age than the average, and overall
5 the distribution of retirements is more spread out than in the previous example. By using
6 different types of Iowa curves, I can capture these different characteristics that can be seen
7 in retirement data.

8 One way that Iowa curves illustrate these different patterns is by their orientation
9 as left-skewed, symmetrical or right-skewed curves, which are known, respectively, as “L
10 curves,” “S curves,” and “R curves.” The letters describe the location of the “mode,” as
11 discussed above, relative to the average service life. Hence, in the first example, which is
12 symmetrical, I would use an “S curve,” whereas in the second example, in which the mode
13 was at a younger age than the average service life, I would use an “L curve.” If the mode
14 falls after the average service life, then I would use an “R curve.” In addition to L, S and
15 R curves, there is a set of Origin Modal, or “O curves,” which are so called because the
16 mode for these curves is at age one, or the “origin.” Generally speaking, O-shaped Iowa
17 curves are not appropriate for utility plant.

1 In addition to the letter that describes the location of the mode, Iowa curves are
2 numbered one through six, which identifies the spread of the retirement dispersion. Lower
3 numbers represent a wider retirement dispersion. Referring to the first example above, in
4 which the retirements were more tightly grouped around the average service life, a higher
5 number would be used, whereas in the second example, in which the retirements were more
6 diffuse, a lower number would be used.

7 To combine these two concepts, an appropriate Iowa curve for the first example
8 might be an S5, whereas an appropriate Iowa curve for the second example might be a L2.
9 This combination of one letter and one number defines a dispersion pattern. Adding an
10 average service life to an Iowa curve (*e.g.*, 5-S0) provides a survivor curve intended to
11 depict a reasonable expectation of how a group of assets will survive, or conversely be
12 retired, over the expected average service life.

13 Table JSG-2 below compares curves with the same shape (S0) but different average
14 service lives (5- and 10-years) to illustrate different iterations with the same curve. The
15 percent surviving represents the amount of plant surviving at each age interval shown in
16 the first column. The 5 S0 life and curve sums to the five-year average service life, while
17 the 10 S0 life and curve sums to a ten-year average service life.

Table JSG-2

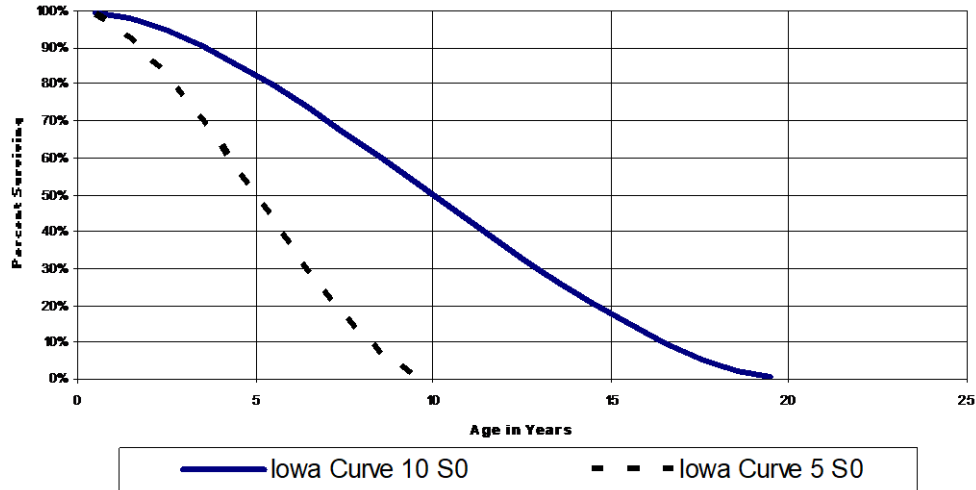
Sample Survivor Curves		
<u>Age</u>	<u>5 S0 Curve</u> <u>Percent Surviving</u>	<u>10 S0 Curve</u> <u>Percent Surviving</u>
0.5	0.99	1.00
1.5	0.92	0.98
2.5	0.83	0.94
3.5	0.70	0.90
4.5	0.57	0.85
5.5	0.43	0.80
6.5	0.30	0.74
7.5	0.17	0.67
8.5	0.08	0.60
9.5	<u>0.01</u>	0.53
10.5		0.47
11.5		0.40
12.5		0.33
13.5		0.26
14.5		0.20
15.5		0.15
16.5		0.10
17.5		0.06
18.5		0.02
19.5		<u>0.00</u>
Total	5.00	10.00

- 1 These are called “curves” because, when plotted on charts with the x-axis representing “age”
- 2 and the y-axis representing “percent surviving,” they appear as shown below in Graph 3:

1

Graph JSG-3

Example of Same Curve With Different Lives



2

3 **Q. HOW DO YOU USE THE IOWA CURVES IN YOUR SERVICE LIFE ANALYSIS?**

4 A. The purpose of Iowa curves is to enable the calculation of an average remaining life.
5 Remaining life calculations take the current age of each vintage within an account and then
6 use the retirement rate projected by the appropriate Iowa curve to project the remaining life
7 of each of these vintages of plant. Ultimately, depreciation accruals for plant investment
8 are calculated from remaining lives, so it is important to select the correct average service
9 life and the correct Iowa curve.

10 **Q. IS IT NECESSARY TO FIT ALL OF THE AVAILABLE DATA POINTS TAKEN**
11 **FROM THE OBSERVED LIFE TABLE?**

12 A. No. In some cases, it is appropriate to disregard some or even many of the oldest aged
13 data. This is because actuarial data that the company keeps often is tied to long-lived assets
14 that represent so small a percentage of the total plant as to not be statistically significant or
15 represent accounting anomalies, such as retirements that were never recorded. This

1 process, which is represented in the graphs below, is called a “T-cut.” While there is no
2 hard and fast rule for where a T-cut is appropriate, it is generally appropriate to make a T-
3 cut where the remaining retirement data diverges materially from the established pattern of
4 retirements seen to that point.

5 The decision to make a T-cut, and at what point in the data set to make the cut, is
6 one of the most important, yet subjective, elements to an actuarial analysis. In most cases,
7 making a “larger” T-cut (that is, one that results in fitting the curve to less of the actuarial
8 data) will result in a shorter estimated average service life because the data eliminated is
9 for the longest-lived assets in the set of data.

10 Additionally, an inconclusive analysis may occur if data points are eliminated from
11 an observed life table with a limited data set (that is, an account that has a short history of
12 plant exposed to retirement). Typically, the portion of an Iowa curve between 85%
13 surviving and 15% surviving most distinguishes one curve from another. Apart from O
14 curves, Iowa curves follow a parabolic distribution of retirements, as we discussed above,
15 they tend to have limited retirements at the beginning and end of their life. Thus, the
16 portion between 85% and 15% surviving is the most indicative because that is when the
17 bulk of retirements in a given account happen, and where variation in the pattern of
18 retirements tends to occur. If a T-cut eliminates too much of the observed life table data,
19 the matching of that data to an Iowa curve will be more likely to produce ambiguous and
20 misleading results. I believe that the full set of aged data should be used in the service life
21 analysis unless specific circumstances warrant exclusion of the data.

22 **Q. DO YOU HAVE ANY CONCERNS WITH THE SERVICE LIVES COMPONENT**
23 **OF MR. SULLIVAN’S DEPRECIATION STUDIES FOR EDE?**

1 A. Broadly, I believe that Mr. Sullivan’s average service life analysis was appropriately
2 conducted. However, Mr. Sullivan’s interpretation of the results, and his explanation of
3 how the analyses impacted his ultimate conclusion are wanting. To explain, I will use the
4 Company’s largest distribution account, 365 – Overhead Conductors and Devices, as an
5 example.

6 For account 365, Mr.Sullivan conducted actuarial analysis of two periods. First
7 from 1960-2014, and then for the full range of data from 1900-2014. For each, the software
8 he used composed an OLT from the Company’s data, then he used a curve fitting routine
9 to arrive at the best fitting average service lives for a variety of different Iowa curve shapes.

10 The table below shows the curve results from that curve-fitting routine:

11 Table JSG-3²

12	Curve	Residual	Curve	Residual	Curve	Residual
13	<u>Indication</u>	<u>Measure</u>	<u>Indication</u>	<u>Measure</u>	<u>Indication</u>	<u>Measure</u>
14	S0.5-90.3	1.77	R2-80.4	2.22	L1 102.2	1.69
15	S1- 78.8	1.21	R2.5- 70.7	1.66	L1.5- 88.5	1.40
16	S1.5- 71.8	1.41	R3- 63.5	1.77	L2- 77.5	1.5

17
18 The lower the Residual Measure, the better the fit to the data. Therefore, we can
19 see that the best-fitting curves for each family are the 78.8-S1 curve, the 70.7-R2.5 curve,
20 and the 88.5-L1.5 curves. Despite these results, the average service life that Mr. Sullivan
21 is proposing for this account is a 59-R2.5 curve. While the R2.5 curve shape is relatively

² Data for table taken from Sullivan workpaper file “ACT365” which contains the actuarial analysis for Account 365.

1 consistent with the actuarial analysis, the average service life is significantly shorter than
2 any of the results provided in his workpapers. This disconnect between the life analysis
3 and Mr. Sullivan's proposals is seen throughout the mass property accounts that he studied.
4 While it is certainly possible to reasonably deviate from the results of one's mathematical
5 analysis to this extent, Mr. Sullivan has not provided any explanation, either in his
6 testimony, workpapers, or in response to data requests, as to why he has proposed the
7 average service lives that he has.

8 **Q. HAVE YOU PROVIDED THE RESULTS OF YOUR MATHEMATICAL FITTING**
9 **ANALYSIS?**

10 A. Yes, Exhibit JSG-2 includes a Schedule titled "Best Fit Curve Results" for each account
11 studied that shows my mathematical curve fitting analysis. Except in limited cases, the
12 "best fit" here, defined as the life-curve combination with the least sum of squared
13 differences, has been selected as our proposed average service life and retirement
14 dispersion curve for that account. These differ from the best fits resulting from Mr.
15 Sullivan's analysis primarily because we have selected different T-cuts for our analysis.
16 As can be seen in the graphs presented for each account in Exhibit JSG-2, I have generally
17 tried to make T-cuts where there appears to be a significant break in the pattern of
18 retirements, or where the retirements end.

19 **Q. ARE THERE INSTANCES WHERE THE MATHEMATICAL BEST FIT LIFE**
20 **AND CURVE ARE NOT APPROPRIATE?**

21 A. Certainly. The mathematical best fit is appropriate in most cases in which the future
22 retirement patterns can reasonably be expected to follow historical experience. However,

1 this is not always the case. There are numerous factors that might lead a utility depreciation
2 expert, familiar with the plant account for a given company for a given account, to conclude
3 that future depreciation expectations are different than historical experience. These factors,
4 including major replacement or maintenance projects, differing life expectations of new
5 technologies, or economic or engineering decisions of utility management, might
6 significantly affect the expectations for future retirement rates. Thus, informed judgment
7 is an important component of the service life analysis, but any decision not to follow
8 historical experience must be supported by a reasonable basis.

9 **Q. ARE THERE ACCOUNTS THAT YOU STUDIED WHERE THE BEST FITTING**
10 **CURVE IS NOT APPROPRIATE?**

11 A. Yes. Based on my review of the actuarial analysis data I concluded that there were a
12 number of accounts where the best-fitting curve shape was a L-type Iowa curve. While I
13 think that L-shaped curves are sometimes appropriate for utility plant, they are mostly
14 appropriate when the plant in the account in question has reached a greater degree of
15 maturity. In other words the data represents closer to a full life cycle of plant for the
16 account in question, and the OLT's cumulative survivors can be seen to approach 0%.
17 Given that these accounts generally have relatively low average ages, relative to their
18 expected average service life, I do not think that an L-type curve is the best selection at this
19 time. As a result, in several cases, I have then proposed to utilize the next-best fitting
20 service life and curve shape for these accounts, typically either a S or R-type curve, or in
21 the case of Account 371- Installations on Cust. Premises, a O1 curve, which is essentially
22 a simple straight line.

1 **D. DISCUSSION OF WHOLE LIFE VERSUS REMAINING LIFE**

2 **Q. WHAT DEPRECIATION CALCULATION METHODOLOGY ARE YOU**
3 **PROPOSING FOR MASS PROPERTY ACCOUNTS?**

4 A. I am proposing to use the remaining life methodology for all mass property accounts. Mr.
5 Sullivan has proposed to utilize the whole life methodology.

6 **Q. WHAT IS THE DIFFERENCE BETWEEN THE WHOLE LIFE AND**
7 **REMAINING LIFE METHODOLOGIES?**

8 A. The names of the two methods are descriptive of how they operate. The whole life method
9 simple depreciates the service value of the plant (plant in service plus net salvage) over the
10 average service life of the account. For the whole life method, the retirement dispersion
11 pattern represented by the Iowa curve shape is irrelevant. For the remaining life method,
12 we subtract the current depreciation reserve from the service value to arrive at future
13 accruals. This amount is then depreciated over the average remaining life of the plant. The
14 average remaining life is calculated using both the average service life and the Iowa curve
15 shape. These formulas show the simple calculation.

16
$$\text{Whole Life} = (\text{Plant} + \text{Future Net Salvage}) / \text{Average Service Life}.$$

17
$$\text{Remaining Life} = (\text{Plant} + \text{Future Net Salvage} - \text{Depreciation Reserve}) / \text{Average}$$

18
$$\text{Remaining Life}.$$

19 The primary difference, then, between the two methods is that remaining life method takes
20 into account the amount of plant in each account that has already been depreciated. The
21 whole life method does not.

1 **Q. IS ONE METHOD SUPERIOR TO THE OTHER?**

2 A. Yes. The remaining life method is generally superior to the whole life method in most
3 respects. Because the remaining life method takes into account the current depreciation
4 reserve, it can be considered “self-correcting”. Over time, a utility may, for a variety of
5 reasons, be over or under-depreciating their plant relative to their retirement experience.
6 When this occurs, the depreciation reserve will grow or shrink relative to the remaining
7 service value.

8 When using the whole life methodology, it is necessary to separately analyze the
9 depreciation reserve compared to what is called a “theoretical” or “computed” reserve, to
10 determine whether depreciation has been too high or too low in the past. A serious
11 discrepancy in reserves can be corrected by creating an amortization to correct an excess
12 or deficiency.

13 The creation of such amortizations adds a layer of complexity to the calculation of
14 depreciation expense. The process of analyzing depreciation reserves itself is fraught with
15 ambiguity.

16 Fortunately, this is not necessary when utilizing the remaining life method. If the
17 company has historically been depreciating too quickly, the reserve will grow more
18 quickly, which will in turn automatically drive down depreciation rates in the future. Or,
19 if the Company has been depreciating too slowly, the reserve will grow more slowly than
20 plant, which will automatically increase depreciation rates in the future. The simple self-
21 correcting nature of the remaining life method makes it superior to the whole life method.

22 **Q. IS THE REMAINING LIFE METHOD MORE BROADLY USED THROUGHOUT**
23 **THE INDUSTRY?**

1 A. Yes. Over the last decade and a half, the vast majority of electric, gas and water utilities
2 have move from the whole life depreciation method to the remaining life method.

3 **Q. WHAT IS THE IMPACT OF MOVING TO THE REMAINING LIFE METHOD**
4 **ON DEPRECIATION EXPENSE IN THIS CASE?**

5 A. For EDE, the result of moving from whole life depreciation to remaining life depreciation
6 is a fairly significant reduction in depreciation expense. On a total company basis, my
7 proposed depreciation expense is \$22.7 million, for mass property accounts. This takes
8 into account my adjustments to service lives and net salvage methodology. If I were to
9 keep my service life and net salvage adjustments, and utilize the whole life method, the
10 depreciation expense would be \$26.2 million. Meaning that the impact of switching to
11 remaining life methodology alone is approximately \$3.5 million.

12 **Q. WHAT DOES THE IMPACT OF WHOLE LIFE VERSUS REMAINING LIFE**
13 **TELL US?**

14 A. The impact of this change tells us that the Company has been collecting depreciation
15 expense at a higher rate than they have been experiencing retirements for some time. This
16 is broadly consistent with the finding of the service life analysis of Mr. Sullivan and myself.
17 We have both proposed to adjust a significant number of mass property accounts to have
18 longer average service lives, relative to the existing rates, because we found that the
19 existing service lives were too short.

20
21
22

1 **E. ELIMINATION OF FORECASTED ADDITIONS FOR PRODUCTION PLANT**

2 **Q. HAS MR. SULLIVAN INCLUDED FORECASTED ADDITIONS IN HIS**
3 **CALCULATION OF DEPRECIATION RATES FOR PRODUCTION PLANT?**

4 A. Yes. Mr. Sullivan has included two categories of forecasted additions and retirements in
5 his calculation of depreciation rates for Production plant. Mr. Sullivan has included some
6 number of “major additions”, which are large additions to several production units that Mr.
7 Sullivan cites as having been included in the 2015 budget. These stem from specific plans
8 in place. Then he has included “forecast interim activity” which is based on recent history
9 of additions to each unit. This annualized average is then added to the plant-in-service
10 each year from the present through to the planned retirement year. Then he has calculated
11 a depreciation rate that includes the depreciation of these forecasted interim additions and
12 retirements.

13 **Q. IS THE INCLUSION OF FORECASTED ADDITIONS APPROPRIATE?**

14 A. No. Public Utility Depreciation Practices, published by the National Association of
15 Regulatory Utility Commissioners in August 1996 (henceforth “the Depreciation
16 Manual”), is considered the primary authoritative text when it comes to utility depreciation.
17 In its discussion of depreciation for production units using the Life Span method, it states
18 that “interim additions are not considered in the depreciation base or rate until they occur.”³

³ Public Utility Depreciation Practices, published by the National Association of Regulatory Utility Commissioners in August 1996, page 142.

1 Then again in the glossary it states, “Interim additions are not considered in the
2 depreciation computation until they occur.”⁴

3 We can clearly see that these types of interim additions are disallowed by the
4 authoritative depreciation text. However, beyond that, we can see that this practice simply
5 does not align with common sense. First, it does not make sense to charge current
6 customers for the service value of plant in the future. This is totally against the definition
7 of depreciation which is intended to distribute the service value of plant over its useful life.
8 Second, Mr. Sullivan has added a normalized forecasted addition amount annually for
9 every year up to the year that the plant is to be completely retired. This defies the
10 expectation that the addition of new plant to a production unit should slow as it approaches
11 its termination date.

12 For these reasons, I have eliminated the annual normalized interim additions from
13 Mr. Sullivan’s depreciation rate calculation for the Company’s production plant. However,
14 I have left the category of “major additions” which encompass only known and specific
15 additions included in the Company’s 2015 Capital Budget.

16 **F. DISCUSSION OF NET SALVAGE**

17 **Q. WHAT IS NET SALVAGE?**

18 A. “Salvage” is the theoretical value of property after retirement. Net salvage is gross
19 salvage minus cost of removal. Cost of removal is the cost that the Company incurs
20 for the process of retiring plant-in-service. Gross salvage is the amount that the

⁴ Ibid, page 321.

1 Company can recoup from its retirements through sales of parts and scrap. Thus,
2 net salvage is the net of the proceeds and expenses of retiring plant. Because net
3 salvage is considered part of the cost of the investment in plant-in-service, it is
4 collected as part of depreciation expense to recoup that cost of investment just as
5 the rest of the Company's investment in plant in service.

6 **Q. PLEASE DESCRIBE THE ISSUES ASSOCIATED WITH THE**
7 **COLLECTION OF NET SALVAGE.**

8 A. The primary issue is that companies are allowed to include the future cost of
9 removing plant currently in service as part of current depreciation rates. This means
10 that a utility collects cost of removal in current rates, via depreciation expense, for
11 an expenditure that will be made at some point in the future. However, this presents
12 an issue because the actual amount of net salvage that the Company will incur in
13 the future is unknown. With net salvage, we are forced to estimate both the timing,
14 and the expected amount of future net salvage that the Company will require to
15 retire its current plant in service.

16 **Q. HOW IS MR. SULLIVAN PROPOSING TO ESTIMATE THE COMPANY'S**
17 **FUTURE NET SALVAGE?**

18 A. Mr. Sullivan proposes a methodology which calculates a ratio of annual net salvage
19 over retirements. Mr. Sullivan has examined this ratio in five and ten-year periods
20 over the past fifteen years. Mr. Sullivan then exercises his judgment to incorporate

1 the historical data, the age of the plant, managerial expectations, and the experience
2 of other utilities in the industry then arrives at a net salvage ratio for each account.

3 **Q. CAN YOU DESCRIBE YOUR CONCERNS WITH THIS**
4 **METHODOLOGY?**

5 A. Yes. I have several significant concerns with this methodology. First, this
6 methodology produces unrealistically high future net salvage ratios. Second, net
7 salvage and retirements are not causally related or mathematically correlated in any
8 way and therefore reliance on this ratio yields unreliable and unsound results. This
9 type of analysis is insufficient to support the large amounts of future net salvage
10 that Mr. Sullivan is proposing to collect.

11 **Q. CAN YOU EXPLAIN WHY YOU BELIEVE MR. SULLIVAN'S**
12 **METHODOLOGY RESULTS IN UNREALISTICALLY HIGH NET**
13 **SALVAGE RATIOS?**

14 A. Yes. In brief, there is a disconnect between the Company's actual incurred cost of
15 removal and the future net salvage accruals that this methodology suggests. For
16 example, if we look at Account 365 again, we can see how excessive these results
17 can be. Based on the simple five-year average of experienced net salvage in this
18 account, we would expect there to be \$19 million of negative future net salvage over
19 the remaining life of this account. If we take the five-year average net salvage ratio
20 of net salvage over retirements in this account, which is -129%, the total future net

1 salvage over the remaining life would be \$249.5 million. This means that the
2 Company would be collecting roughly *\$230.0 million more* over the course of the
3 life of the plant than if a simple five-year average of actual net salvage was used.
4 Now, Mr. Sullivan is not proposing to use the five-year average; he is only
5 proposing a -100% net salvage ratio, but even then the Company would be
6 collecting *\$174 million* more over the life of the plant.

7 **Q. DO FUTURE COSTS OF REMOVAL EXPENSES JUSTIFY HIGHER**
8 **FUTURE NET SALVAGE RATIOS?**

9 A. No. Setting aside the question of the accuracy of net salvage of retirements as a
10 means for forecasting future net salvage, the logic of collecting for large excesses
11 for future net salvage is flawed. This is because EDE, like any utility, is
12 continuously adding and retiring plant with no end date. This means that, in a real
13 sense, the future never truly arrives. As plant in service increases, the amount being
14 collected for future net salvage will increase in turn. The result is that *present*
15 distribution customers will be constantly paying an amount for future net salvage
16 costs that are more than a reasonable estimate of those costs.

17 It is instructive to contrast this ongoing net salvage situation with net salvage
18 for a single piece of plant with a final retirement date. This is the way that
19 production plant is depreciated in this case. In such cases, a terminal net salvage
20 estimate is arrived at using a terminal net salvage study which carefully estimates
21 the actual cost of removing all plant for the relevant unit. That terminal net salvage

1 is then distributed over the remaining life of the plant. This is a reasonable
2 application of the principle that current customers should bear the cost of future net
3 salvage. With no termination date, current customers are perpetually asked to bear
4 the cost of ill-defined and excessive future net salvage.

5 **Q. CAN YOU EXPLAIN WHY NET SALVAGE AND RETIREMENTS ARE**
6 **NOT RELATED TO EACH OTHER?**

7 A. Yes. There are two ways in which net salvage could be related to retirements:
8 causally and mathematically correlated. First, let us examine how retirements and
9 net salvage could be related causally, which would be if retirements were a causal
10 driver of net salvage. There is an intuitive logic to this notion. A retirement happens
11 when a given unit of plant is taken out of service. If, as part of taking that unit out
12 of service, it needs to be physically removed, then there will be some cost to the
13 Company associated with that removal. However, we know that this is not actually
14 what drives most cost of removal. In fact, most retirements occur when old plant is
15 being replaced by new plant.

16 **Q. IS THERE ANY OTHER WAY IN WHICH COST OF REMOVAL AND**
17 **RETIREMENTS MIGHT BE RELATED?**

18 A. The other way in which retirements and net salvage could be related is by
19 mathematical correlation. That is, even without a causal relationship, it is possible
20 that there is a close relationship between the two amounts, such that when one

1 increases, it would be possible to reasonably predict that the other would also
2 increase. The lack of any real correlative connection between net salvage and
3 retirements is clear when we look at how much the cost of removal to retirement
4 ratio varies from year to year. To illustrate the variance in net salvage, I examined
5 the ratios for the Company's largest transmission plant account, Account 365 -
6 Overhead Conductors and Devices for the period of available data, from 2000-2014.

7 **Table JSG-4**

8 **Net Salvage History Account 365 – Overhead Conductors and Devices⁵**

YEAR	RETIREMENTS	COST OF REMOVAL AMOUNT	%
2000	138,915	305,427	220
2001	2,976	-3,529	-118
2002	137,031	529,609	386
2003	187,471	362,608	193
2004	319,038	722,571	226
2005	194,153	516,809	266
2006	252,394	480,634	190
2007	174,316	911,478	522
2008	799,737	1,066,387	133
2009	438,927	777,496	177
2010	342,448	603,845	176
2011	265,484	1,012,837	381
2012	166,687	444,512	266
2013	447,663	162,769	36
2014	579,514	1,249,060	215

⁵ From Sullivan Workpaper labeled "Net Salvage Analysis 2015"

1 Table JSG-4, above, reproduces the cost of removal and retirement history
2 for Account 365. I have excluded gross salvage here because we are primarily
3 concerned with the relationship between cost of removal and retirements and EDE
4 has a significant amount of gross salvage. We can see the annual cost of removal
5 ratio for this account varies significantly, from as low as 36% in 2013 to as high as
6 522% in 2007. The table also illustrates that there is no trend from one year to the
7 next. For example, in the final three years available, 2012, 2013, and 2014, the cost
8 of removal ratios were 266%, 36%, and 215% respectively. Year to year, the cost
9 of removal over retirement ratios swung dramatically in this period. In the same
10 period, retirements rose from year to year, increasing from \$166,687 in 2012 to
11 \$477,663 in 2013, to \$579,514 to 2014. Yet the ratio for the same period fell and
12 rose again significantly because the cost of removal varied dramatically over the
13 exact same period, going from \$444,512 in 2012, then dropping down to \$162,769
14 in 2013, before rising again to \$1,249,060 in 2014. These types of unrelated swings
15 in retirements and cost of removal happen because there is no causal or
16 mathematical relationship between retirements and cost of removal. Thus,
17 retirements and net salvage amounts increase and decrease independent of each
18 other. This lack of correlation means that net salvage ratios vary significantly for
19 any given account from year to year, even relying on a five-year average. The result
20 of that is that estimates of future cost of removal, sometimes forty years and more
21 into the future, are extremely unreliable.

1 **Q. ARE THERE ANY OTHER PROBLEMS WITH THE METHODOLOGY**
2 **THAT MR. SULLIVAN IS PROPOSING?**

3 A. Yes. In addition to the other problems discussed with this ratio of net salvage to
4 retirements, there is a mismatch in the periods between the two numbers. Cost of
5 removal is always in current dollars. That is, an amount from 2012 is shown at
6 2012-dollar values. In contrast, retirements are always recorded at original cost. A
7 given retirement may be recorded in 2012, but the dollar values represented in that
8 retirement could be from 1986, 1970, or 1920, consistent with wildly varying
9 current dollar values.

10 What this means is that the method Mr. Sullivan is proposing contains a
11 significant amount of inflation inherent in it. This range of historical inflation is
12 implicitly projected out into the future and charged to current ratepayers. This
13 introduces one relatively minor issue, the question of whether it is accurate to
14 assume that future inflation will be the same as historical inflation. It also introduces
15 a major issue, which is that current ratepayers are effectively being charged for
16 future net salvage at their inflated future dollar values but are required to pay those
17 amounts with current dollars.

18 Finally, there is the time-value of money to be considered. In effect, charging
19 current ratepayers for future net salvage is asking current ratepayers to provide a
20 loan to the Company for funds to potentially be used on future costs. Normally,
21 when the Company makes an investment in plant, consumers are expected to not

1 only repay the principal amount of this investment, but to also pay a return *on* this
2 investment until such time as the Company has fully recovered the investment.
3 However, in the case of net salvage, current ratepayers are being asked to provide
4 the Company with a loan without any kind of compensation.

5 **Q. WHAT ARE YOU PROPOSING REGARDING THE COMPANY’S NET**
6 **SALVAGE PROPOSALS?**

7 A. I am proposing a methodology which utilizes the most recent five-year average of
8 net salvage to estimate future net salvage. I have estimated total future net salvage
9 by multiplying the annual accrual requirement by the account remaining life. This
10 is a straight-line accrual estimate and approach. I believe that the Company’s most
11 recent five years of net salvage data provide the best indication of the appropriate
12 annual accrual for the immediate future. This average should then be updated with
13 each subsequent depreciation study, perhaps in a technical update like the one Mr.
14 Sullivan has submitted in this proceeding. Accordingly, I propose that the Company
15 calculate its total future net salvage by multiplying its required current annual net
16 salvage accrual based on its most recent five-year average of net salvage for each
17 account by the remaining life (*i.e.*, the plant not yet depreciated) for that account.
18 This methodology is superior to the Company’s proposal.

19 **Q. PLEASE PROVIDE AN EXAMPLE.**

20 A. I will use account 365 Overhead Conductors and Devices to demonstrate. The most

1 recent five-year average net salvage is negative \$\$407,401, and I have estimated a
2 46.67-year remaining life for the account. The December 31, 2017 plant account
3 balance was \$193.4 million. Given these facts, I have calculated a negative -10
4 future net salvage ratio for the account as follows.

5 Account 365 Overhead Conductors and Devices Plant FNS Ratio

6		
7	1. <u>Average Net Salvage 5-year average</u>	<u>(\$407,401)</u>
8	2. <u>Required Annual Accrual</u>	<u>\$407,401</u>
9	3. <u>Remaining Life</u>	<u>46.67 years</u>
10	4. <u>Total Future Net Salvage (L3 x L2)</u>	<u>(\$19,013,394)</u>
11	5. <u>Plant Balance</u>	<u>\$193,449,947</u>
12	6. <u>Future Net Salvage Ratio (L4/L5)</u>	<u>(10)</u>
13	7. <u>Required Annual NS Accrual Rate % (L2/L5)</u>	<u>.21%</u>

14 **Q. DOES YOUR APPROACH ACCOUNT FOR INFLATION?**

15 **A.** Yes, my approach does account for inflation because it is a rate (%) that is applied
16 to annual plant balances which are in turn affected by inflation. Thus, my approach
17 accounts for inflation as it is incurred.

18 **Q. DO YOU HAVE ANY ADDITIONAL COMMENTS?**

19 **A.** Yes. In recent years, the Company has had a significant amount of gross salvage.
20 This includes a number of years in which the Company has received a significant
21 insurance reimbursement for plant. It also seems to have been driven to a large

1 degree by the result of the 2011 tornado that struck Joplin. Mr. Sullivan has elected
2 to account for this by removing a significant amount of “outlier” gross salvage from
3 his analysis. I have also removed gross salvage amounts where the available data
4 clearly contains reimbursements for insurance purposes, as noted in Mr. Sullivan’s
5 analysis. However, beyond that, I do not think that it is appropriate to eliminate
6 such a significant amount of gross salvage from the analysis entirely.

7 Instead, I have analyzed the company’s net salvage with the gross salvage amounts
8 included. Then, I have limited the net salvage ratios used in depreciation to only
9 those accounts where the analysis showed that the collection of negative net salvage
10 was needed. I think this is a reasonable compromise, given the somewhat ahistorical
11 nature of recent history for the company when it comes to cost of removal and gross
12 salvage as a result of the tornado.

13 **Q. IN WHAT WAYS IS YOUR PROPOSED METHODOLOGY SUPERIOR TO**
14 **THE METHODOLOGY PROPOSED BY MR. SULLIVAN?**

15 A. The principle way in which this methodology is superior to the Company’s proposed
16 methodology is that it effectively matches the Company’s depreciation rate to the
17 costs incurred by the Company. Setting aside for a moment my other criticisms of
18 the Company’s methodology, the overarching problem is that the Company’s
19 methodology is an estimate of costs that it will not incur for years, and in some cases
20 decades. By its very nature, projecting costs decades into the future carries
21 significant inherent uncertainty. In contrast, utilizing the five-year average of

1 incurred net salvage ensures that a company is always compensated for their net
2 salvage costs because its net salvage accruals are directly tied to its incurred net
3 salvage. Using the five-year average would also ensure that charges to distribution
4 customers closely equate to the Company's actual expenditures, therefore, ensuring
5 that customers are not being overcharged for costs that may not be incurred and that
6 the Company collects enough to cover its cost of removal.

7 **G. CONCLUSION**

8 **Q. CAN YOU SUMMARIZE THE ADJUSTMENTS THAT YOU HAVE PROPOSED**
9 **IN YOUR TESTIMONY?**

10 A. Yes. To summarize, I have made four adjustments. One, I have adjusted the average
11 service lives of thirteen mass property accounts. Two, I have proposed the remaining life
12 method should be used in place of the whole life method for mass property accounts.
13 Three, I have proposed to remove forecast interim additions from Mr. Sullivan's
14 depreciation rate calculations for production plant. Fourth, I have proposed to adopt a
15 method of calculating future net salvage which is based simply on the five-year average
16 of historical net salvage.

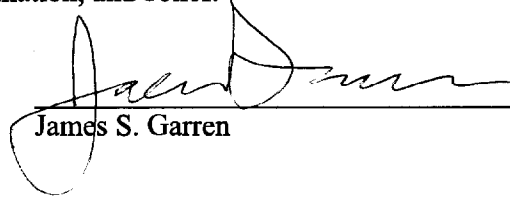
17 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

18
19 A. Yes.

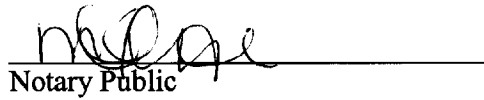
VERIFICATION

District of Columbia)
STATE OF ~~MARYLAND~~)
N/A)
COUNTY OF ~~PRINCE GEORGE~~) ss:

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


James S. Garren

SUBSCRIBED AND SWORN to before me this 13th day of May, 2019.


Notary Public

My Commission expires: June 30, 2020



Empire District Electric

2014 Study Year

June 30, 2015

Line	(1) FERC Account	(2) Description	(3) Plant in Service at 6/30/2015	(4) Existing Accrual Rate	(5) Recommended Remaining Life Accrual Rate	(6) Recommended Depreciation Expense
<u>Asbury</u>						
1	311	Structure & Improvements	20,684,563	2.81%	4.14%	856,341
2	312	Boiler Plant Equipment	219,488,184	5.28%	5.00%	10,974,409
3	314	Turbo Generator Equipment	36,200,752	2.84%	4.69%	1,697,815
4	315	Accessory Electric Equipment	6,837,913	3.30%	3.71%	253,687
5	316	Misc Power Equipment	2,290,838	3.95%	3.13%	71,703
6	311-316	Total Asbury	285,502,250	4.73%	4.85%	13,853,955
<u>Riverton</u>						
7	311	Structure & Improvements	2,654,253	3.69%	11.52%	305,655
8	312	Boiler Plant Equipment	129,030	3.09%	11.52%	14,859
9	314	Turbo Generator Equipment	0	2.39%	11.52%	-
10	315	Accessory Electric Equipment	409,165	1.84%	11.52%	47,118
11	316	Misc Power Equipment	4,515	5.27%	11.52%	520
12	311-316	Total Riverton	3,196,964	3.43%	11.52%	368,152
<u>Iatan 1</u>						
13	311	Structure & Improvements	4,134,403	2.09%	1.72%	71,112
14	312	Boiler Plant Equipment	74,776,018	3.17%	2.59%	1,936,699
15	312	Train	329,005	6.67%	6.67%	21,945
16	314	Turbo Generator Equipment	12,115,969	2.44%	2.26%	273,821
17	315	Accessory Electric Equipment	7,524,873	4.08%	2.47%	185,864
18	316	Misc Power Equipment	1,448,765	3.27%	1.34%	19,413
19	311-316	Total Iatan 1	100,329,034	3.12%	2.50%	2,508,854
<u>Iatan 2</u>						
20	311	Structure & Improvements	20,379,010	2.10%	1.63%	332,178
21	312	Boiler Plant Equipment	137,576,191	2.10%	1.42%	1,953,582
22	314	Turbo Generator Equipment	47,746,420	2.10%	1.48%	706,647
23	315	Accessory Electric Equipment	12,275,927	2.10%	1.58%	193,960
24	316	Misc Power Equipment	231,170	2.10%	1.73%	3,999
25	311-316	Total Iatan 2	218,208,718	2.10%	1.46%	
<u>Iatan Common</u>						
26	311	Structure & Improvements	14,255,204	2.10%	2.92%	415,788
27	312	Boiler Plant Equipment	39,149,809	2.10%	1.96%	767,881
28	314	Turbo Generator Equipment	1,239,082	2.10%	1.54%	19,044
29	315	Accessory Electric Equipment	4,760,916	2.10%	1.60%	75,983
30	316	Misc Power Equipment	631,040	2.10%	4.18%	26,357
31	311-316	Total Iatan Common	60,036,052	2.10%	2.17%	1,305,053
<u>Plum Point</u>						
32	311	Structure & Improvements	20,665,934	2.10%	2.18%	450,517
33	312	Boiler Plant Equipment	53,609,588	2.10%	2.17%	1,163,328

34	312	Train	5,267,226	6.67%	6.67%	351,324
35	314	Turbo Generator Equipment	16,961,881	2.10%	2.18%	369,769
36	315	Accessory Electric Equipment	5,254,093	2.10%	2.12%	111,387
37	316	Misc Power Equipment	2,968,554	2.10%	2.07%	61,449
38	311-316	Total Plum Point	104,727,276	2.33%	2.39%	2,507,774
<u>Total Steam Production</u>						
39	311	Structure & Improvements	82,773,368	2.33%	2.94%	2,431,591
40	312	Boiler Plant Equipment	524,728,820	3.58%	3.20%	16,810,758
41	312	Train	5,596,231	6.67%	6.67%	373,269
42	314	Turbo Generator Equipment	114,264,105	2.37%	2.68%	3,067,096
43	315	Accessory Electric Equipment	37,062,887	2.72%	2.12%	785,733
44	316	Misc Power Equipment	7,574,882	2.89%	2.07%	156,800
45	311-316	Total Total Steam Production	772,000,293	3.24%	3.06%	23,625,246
<u>Ozark Beach Hydro</u>						
46	331	Structures & Improvements	799,582	2.01%	1.68%	13,433
47	332	Reservoirs, Dams, and Waterways	3,414,912	0.98%	1.70%	58,054
48	333	Water Wheels, Turbines & Generators	3,181,201	2.98%	2.38%	75,713
49	334	Accessory Electric Equipment	1,404,531	1.96%	2.15%	30,197
50	335	Misc. Power Plant Equipment	492,647	3.53%	1.53%	7,537
51	331-335	Total Ozark Beach Hydro	9,292,873	2.04%	1.99%	184,934
<u>State Line CC</u>						
52	341	Structures & Improvements	10,635,737	2.11%	2.04%	216,969
53	342	Fuel Holders	409,439	4.61%	0.00%	-
54	343	Prime Movers	106,742,478	2.03%	1.92%	2,049,456
55	344	Generators	31,262,316	2.44%	2.98%	931,617
56	345	Accessory Electric Equipment	8,292,989	2.19%	2.00%	165,860
57	346	Misc. Power Equipment	3,679,458	2.08%	2.27%	83,524
58	341-346	Total State Line CC	161,022,417	2.13%	2.14%	3,447,425
<u>State Line CT</u>						
59	341	Structures & Improvements	1,103,160	4.28%	0.00%	-
60	342	Fuel Holders	3,187,313	2.32%	1.49%	47,491
61	343	Prime Movers	26,308,743	3.52%	2.01%	528,806
62	344	Generators	7,049,204	2.61%	1.41%	99,394
63	345	Accessory Electric Equipment	2,875,110	2.41%	1.78%	51,177
64	346	Misc. Power Equipment	292,744	3.88%	2.91%	8,519
65	341-346	Total State Line CT	40,816,274	3.21%	1.80%	735,386
<u>Energy Center Unit 1&2</u>						
66	341	Structures & Improvements	2,134,907	2.19%	1.00%	21,349
67	342	Fuel Holders	1,290,095	3.03%	0.00%	-
68	343	Prime Movers	27,825,476	2.33%	3.10%	862,590
69	344	Generators	4,737,700	2.08%	0.00%	-
70	345	Accessory Electric Equipment	2,263,612	1.14%	4.70%	106,390
71	346	Misc. Power Equipment	1,816,646	2.75%	0.00%	-
72	341-346	Total Energy Center Unit 1&2	40,068,437	2.27%	2.47%	990,329
<u>Energy Center Unit 3&4 (FT8s)</u>						
73	341	Structures & Improvements	1,133,884	2.04%	3.15%	35,717
74	342	Fuel Holders	1,467,460	2.04%	2.82%	41,382
75	343	Prime Movers	48,234,546	1.98%	3.12%	1,504,918

76	344	Generators	519,289	1.93%	3.20%	16,617
77	345	Accessory Electric Equipment	3,338,042	2.05%	2.93%	97,805
78	346	Misc. Power Equipment	1,105,379	2.04%	2.73%	30,177
79	341-346	Total Energy Center Unit 3&4 (FT8s)	55,798,599	1.99%	3.09%	1,726,616
		<u>Riverton CT</u>				
80	341	Structures & Improvements	7,339,079	1.70%	4.16%	305,306
81	342	Fuel Holders	456,988	2.04%	2.76%	12,613
82	343	Prime Movers	6,671,999	2.03%	1.33%	88,738
83	344	Generators	1,764,497	1.92%	2.06%	36,349
84	345	Accessory Electric Equipment	1,430,904	1.95%	2.70%	38,634
85	346	Misc. Power Equipment	740,456	2.04%	3.70%	27,397
86	341-346	Total Riverton CT	18,403,922	1.88%	2.77%	509,036
		<u>Riverton Unit 12</u>				
87	341	Structures & Improvements	494,249	1.70%	2.54%	12,554
88	342	Fuel Holders	945,601	2.04%	4.72%	44,632
89	343	Prime Movers	16,505,226	2.03%	2.06%	340,008
90	344	Generators	11,537,062	1.92%	2.16%	249,201
91	345	Accessory Electric Equipment	8,620,428	1.95%	1.91%	164,650
92	346	Misc. Power Equipment	1,484,187	2.04%	1.92%	28,496
93	341-346	Total Riverton Unit 12	39,586,753	1.98%	2.12%	839,541
87	Total		1,136,989,568	2.91%	2.83%	28,977,055

Empire District Electric
2014 Study Year
June 30, 2015

<u>Account Description</u>	<u>Plant Balance 6/30/2015</u> (1)	<u>Net Salvage Ratio</u> (2)	<u>Average Service Life</u>	<u>Iowa Curve</u>	<u>Total Future Net Salvage</u> (3)	<u>Depreciation Reserve</u> (4)	<u>Future Accruals</u> (5)	<u>Remaining Life</u> (6)	<u>Annual Depreciation Accrual</u> (7)	<u>Depreciation Rate</u> (8)
		(2) = (3) / (1)					(5) = (1) - (3) - (4)		(7) = (5) / (6)	(8) = (7) / (1)
Transmission Plant										
350 Land and Land Rights	11,609,210									
352 Structures and Improvements	2,901,325	(3)	55	R2	(100,108)	\$1,341,666.26	1,659,766	40.3	41,185	1.42%
353 Station Equipment	119,157,090	(2)	57	S1.5	(2,618,017)	\$43,092,631.21	78,682,475	40.7	1,934,181	1.62%
354 Towers and Fixtures	2,136,752	-	65	R2	-	\$885,507.37	1,251,245	14.6	85,702	4.01%
355 Poles and Fixtures	79,706,458	(5)	60	S3	(3,826,402)	\$23,896,252.54	59,636,607	43.7	1,364,994	1.71%
356 Overhead Conductors and Devices	80,991,018	(5)	65	R2	(3,890,242)	\$25,290,128.11	59,591,132	42.9	1,389,071	1.72%
359 Roads and Trails	0									
Total Transmission Plant	296,501,852				(10,434,769)	94,506,185	200,821,226		4,815,133	1.62%
Distribution Plant										
360 Land and Land Rights	4,090,138									
361 Structures and Improvements	27,401,649	(2)	62	R2.5	(449,998)	5,201,197	22,650,450	39.9	568,108	2.07%
362 Station Equipment	100,170,779	(4)	60	R2	(4,227,739)	36,015,226	68,383,292	43.1	1,588,462	1.59%
364 Poles, Towers and Fixtures	183,365,567	(26)	55	S3	(47,607,319)	91,033,629	139,939,257	37.7	3,713,887	2.03%
365 Overhead Conductors and Devices	193,449,947	(10)	64	S1.5	(19,013,394)	82,902,165	129,561,175	46.7	2,776,113	1.44%
366 Underground Conduit	38,030,668	(1)	67	R2.5	(234,399)	16,193,430	22,071,637	54.1	408,129	1.07%
367 Underground Conductors & Devices	59,875,907	-	53	R2	-	30,804,739	29,071,167	39.7	733,010	1.22%
368 Line Transformers	108,466,691	-	55	S0.5	-	39,374,989	69,091,701	43.2	1,598,605	1.47%
369 Services	77,775,708	(9)	53	S3	(6,907,220)	51,314,646	33,368,282	36.9	905,271	1.16%
370 Meters	22,526,507	(1)	53	S0.5	(160,230)	7,861,021	14,825,716	39.7	373,444	1.66%
371 Installations on Cust. Premises	16,947,926	(21)	45	O1	(3,532,600)	12,096,845	8,383,681	36.4	230,068	1.36%
373 Street Lighting & Signal Systems	18,968,907	(49)	58	R0.5	(9,292,856)	4,972,168	23,289,596	46.2	504,650	2.66%
Total Distribution Plant	851,070,393				-	377,770,056	560,635,955		13,399,746	1.57%
General Plant										
389 Land and Land Rights	659,081	-								
390 Structures and Improvements	10,883,118	(1)	28	L3	(95,978)	6,364,184	4,614,912	10.9	423,386	3.89%
391.1 Office Furniture and Equipment	6,160,960	0	21	R1	6,688	1,967,814	4,186,457	15.2	275,425	4.47%
391.2 Computer Equipment	13,895,203	(0)	10		(1,142)	9,908,445	3,987,899	2.9	1,389,918	10.00%
392 Transportation Equipment	12,152,005	3	13	L2	382,228	6,595,343	5,174,435	7.7	672,004	5.53%
393 Stores Equipment	801,823	-	40	R2	-	375,189	426,634	27.6	15,458	1.93%
394 Tools, Shop & Garage Equipment	5,918,332	0	20		3,598	3,395,407	2,519,328	10.1	249,438	4.21%
395 Laboratory Equipment	1,292,173	-	46	R3	-	844,863	447,310	26.6	16,816	1.30%
396 Power Operated Equipment	17,618,256	2	17	R3	295,461	7,965,587	9,357,208	8.7	1,075,541	6.10%
397 Communication Equipment	12,014,046	(5)	21	L1	(564,633)	6,127,485	6,451,194	16.0	403,200	3.36%
398 Miscellaneous Equipment	273,321	-	32	S0	-	174,928	98,394	21.1	4,663	1.71%
Total General Plant	81,668,317					43,719,245	37,263,770		4,525,850	5.54%
Total Mass Property	1,229,240,562					515,995,486	798,720,950	4.22	22,740,729	1.85%
	1136989568								28977055.23	
	2,366,230,130								51,717,784	2.19%

Observed Life Table Results**Empire District Elec****Account: 353.00 -**

Age	Exposures	Retirements	Retirement Ratio (%)	Survivor Ratio (%)	Cumulative Survivors
BAND		1900 - 2014			
0	122,489,243	1,258,563	1.0275	98.9725	1.0000
0.5	122,428,445	155,054	0.1266	99.8734	0.9897
1.5	123,577,292	784,528	0.6348	99.3652	0.9885
2.5	121,258,075	128,647	0.1061	99.8939	0.9822
3.5	117,926,160	206,486	0.1751	99.8249	0.9812
4.5	109,459,406	88,781	0.0811	99.9189	0.9794
5.5	109,097,972	160,102	0.1468	99.8532	0.9786
6.5	107,451,124	86,798	0.0808	99.9192	0.9772
7.5	105,668,693	131,401	0.1244	99.8756	0.9764
8.5	98,099,939	114,456	0.1167	99.8833	0.9752
9.5	97,817,485	299,532	0.3062	99.6938	0.9741
10.5	95,675,789	99,704	0.1042	99.8958	0.9711
11.5	92,184,851	112,777	0.1223	99.8777	0.9701
12.5	82,532,043	301,194	0.3649	99.6351	0.9689
13.5	76,254,225	58,470	0.0767	99.9233	0.9653
14.5	70,207,164	127,117	0.1811	99.8189	0.9646
15.5	68,206,665	261,115	0.3828	99.6172	0.9629
16.5	66,902,418	173,968	0.2600	99.7400	0.9592
17.5	60,459,397	403,145	0.6668	99.3332	0.9567
18.5	58,007,371	476,776	0.8219	99.1781	0.9503
19.5	54,338,535	89,611	0.1649	99.8351	0.9425
20.5	52,231,935	222,057	0.4251	99.5749	0.9409
21.5	49,661,104	109,550	0.2206	99.7794	0.9369
22.5	47,490,685	66,538	0.1401	99.8599	0.9349
23.5	46,076,005	650,943	1.4128	98.5872	0.9336
24.5	41,277,097	135,065	0.3272	99.6728	0.9204
25.5	37,068,237	234,224	0.6319	99.3681	0.9174
26.5	33,703,225	155,379	0.4610	99.5390	0.9116
27.5	31,883,321	152,465	0.4782	99.5218	0.9074
28.5	30,859,363	155,438	0.5037	99.4963	0.9030
29.5	27,820,329	163,505	0.5877	99.4123	0.8985
30.5	25,529,252	158,814	0.6221	99.3779	0.8932
31.5	24,865,315	125,540	0.5049	99.4951	0.8876
32.5	23,302,068	126,434	0.5426	99.4574	0.8832
33.5	19,385,236	92,127	0.4752	99.5248	0.8784
34.5	16,129,670	162,926	1.0101	98.9899	0.8742
35.5	15,062,651	156,228	1.0372	98.9628	0.8654
36.5	12,648,248	126,017	0.9963	99.0037	0.8564
37.5	10,723,850	215,978	2.0140	97.9860	0.8478
38.5	10,369,026	106,880	1.0308	98.9692	0.8308

39.5	9,491,185	139,023	1.4648	98.5352	0.8222
40.5	9,397,237	162,454	1.7287	98.2713	0.8102
41.5	8,683,813	145,322	1.6735	98.3265	0.7962
42.5	8,526,807	87,929	1.0312	98.9688	0.7828
43.5	8,518,599	78,931	0.9266	99.0734	0.7748
44.5	6,909,493	124,682	1.8045	98.1955	0.7676
45.5	6,781,942	131,897	1.9448	98.0552	0.7537
46.5	6,460,440	425,758	6.5902	93.4098	0.7391
47.5	5,109,696	47,532	0.9302	99.0698	0.6904
48.5	5,197,797	127,389	2.4508	97.5492	0.6839
49.5	5,075,046	102,838	2.0263	97.9737	0.6672
50.5	4,802,319	98,427	2.0496	97.9504	0.6537
51.5	4,508,717	150,522	3.3385	96.6615	0.6403
52.5	4,235,759	199,351	4.7064	95.2936	0.6189
53.5	4,110,092	130,473	3.1745	96.8255	0.5898
54.5	3,677,040	55,557	1.5109	98.4891	0.5710
55.5	3,648,886	388,674	10.6519	89.3481	0.5624
56.5	3,262,093	274,465	8.4138	91.5862	0.5025
57.5	2,804,860	25,453	0.9075	99.0925	0.4602
58.5	2,569,636	32,327	1.2580	98.7420	0.4561
59.5	2,390,734	167,839	7.0204	92.9796	0.4503
60.5	1,880,109	128,578	6.8389	93.1611	0.4187
61.5	1,673,486	12,841	0.7673	99.2327	0.3901
62.5	1,733,169	157,555	9.0906	90.9094	0.3871
63.5	1,534,974	10,041	0.6541	99.3459	0.3519
64.5	1,335,408	168,181	12.5940	87.4060	0.3496
65.5	1,200,322	52,502	4.3740	95.6260	0.3056
66.5	882,651	40,691	4.6101	95.3899	0.2922
67.5	803,209	35,417	4.4094	95.5906	0.2787
68.5	738,200	28,172	3.8163	96.1837	0.2664
69.5	705,609	62,569	8.8674	91.1326	0.2563
70.5	646,745	0	0.0000	100.0000	0.2335
71.5	623,727	52	0.0083	99.9917	0.2335
72.5	559,734	9,911	1.7707	98.2293	0.2335
73.5	530,913	0	0.0000	100.0000	0.2294
74.5	516,353	266,291	51.5715	48.4285	0.2294
75.5	244,929	3,326	1.3579	98.6421	0.1111
76.5	238,138	0	0.0000	100.0000	0.1096
77.5	120,418	0	0.0000	100.0000	0.1096
78.5	120,418	0	0.0000	100.0000	0.1096
79.5	136,501	0	0.0000	100.0000	0.1096
80.5	136,501	0	0.0000	100.0000	0.1096
81.5	136,501	5,024	3.6806	96.3194	0.1096
82.5	122,430	0	0.0000	100.0000	0.1055
83.5	91,263	0	0.0000	100.0000	0.1055
84.5	63,923	0	0.0000	100.0000	0.1055
85.5	61,938	0	0.0000	100.0000	0.1055

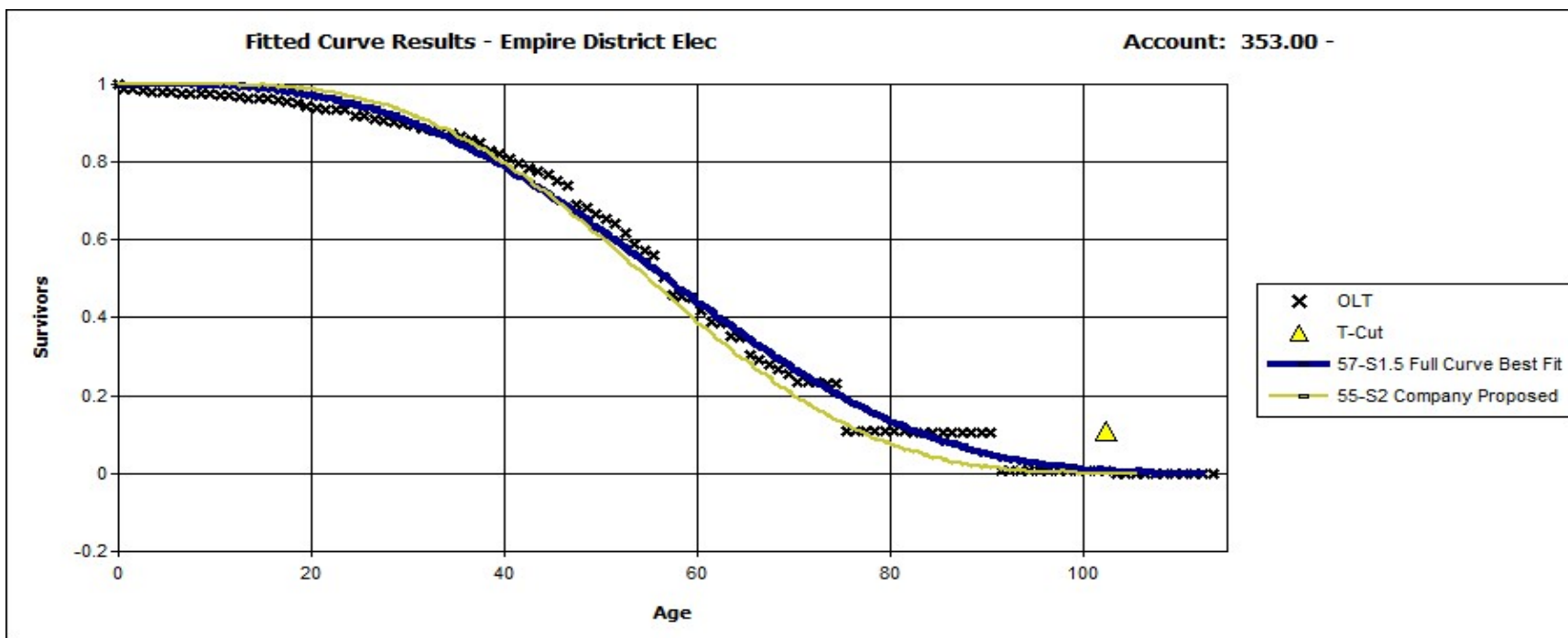
86.5	9,676	0	0.0000	100.0000	0.1055
87.5	5,547	0	0.0000	100.0000	0.1055
88.5	5,547	0	0.0000	100.0000	0.1055
89.5	5,547	0	0.0000	100.0000	0.1055
90.5	1,720	1,586	92.2093	7.7907	0.1055
91.5	134	0	0.0000	100.0000	0.0082
92.5	134	0	0.0000	100.0000	0.0082
93.5	134	0	0.0000	100.0000	0.0082
94.5	134	0	0.0000	100.0000	0.0082
95.5	134	0	0.0000	100.0000	0.0082
96.5	134	0	0.0000	100.0000	0.0082
97.5	134	0	0.0000	100.0000	0.0082
98.5	134	0	0.0000	100.0000	0.0082
99.5	134	0	0.0000	100.0000	0.0082
100.5	134	0	0.0000	100.0000	0.0082
101.5	134	0	0.0000	100.0000	0.0082
102.5	134	134	100.0000	0.0000	0.0082
103.5	0	0	0.0000	100.0000	0.0000
104.5	0	0	0.0000	100.0000	0.0000
105.5	0	0	0.0000	100.0000	0.0000
106.5	0	0	0.0000	100.0000	0.0000
107.5	0	0	0.0000	100.0000	0.0000
108.5	0	0	0.0000	100.0000	0.0000
109.5	0	0	0.0000	100.0000	0.0000
110.5	0	0	0.0000	100.0000	0.0000
111.5	0	0	0.0000	100.0000	0.0000
112.5	0	0	0.0000	100.0000	0.0000
113.5	0	0	0.0000	100.0000	0.0000

Best Fit Curve Results
Empire District Elec
Account: 353.00 -

Curve	Life	Sum of Squared Differences
BAND	1900 - 2014	
S1.5	57.0	822.911
R2.5	56.0	853.134
R2	56.0	868.641
S2	57.0	903.185
L3	57.0	1,607.272
S1	56.0	1,657.166
R1.5	55.0	1,915.962
R3	57.0	2,029.600
S3	57.0	2,994.868
S0.5	56.0	3,202.823
L2	57.0	3,313.674
R1	54.0	4,268.789
L4	57.0	4,301.127
L1.5	57.0	5,210.726
S0	55.0	5,644.554
R4	57.0	6,214.117
L1	57.0	8,203.112
S4	57.0	8,486.321
R0.5	53.0	8,629.954
S-0.5	54.0	9,638.697
L5	57.0	10,451.229
L0.5	57.0	11,522.608
R5	57.0	13,770.651
O1	52.0	14,833.121
L0	57.0	15,707.750
S5	57.0	15,839.021
O2	57.0	18,645.817
S6	57.0	23,710.431
O3	57.0	39,739.672
SQ	57.0	42,218.312
O4	57.0	63,655.707

Analytical Parameters

OLT Placement Band: 1900 - 2014
 OLT Experience Band: 1900 - 2014
 Minimum Life Parameter 4
 Maximum Life Parameter 57
 Life Increment Parameter 1
 Max Age (T-Cut): 102.5



Analytical Parameters

OLT Placement Band:	1900 - 2014
OLT Experience Band:	1900 - 2014
Minimum Life Parameter:	4
Maximum Life Parameter:	57
Life Increment Parameter:	1
Max Age (T-Cut):	104.0

Empire District Elec

353.00 Gen Arm -

Calculation of Remaining Life
Based Upon Broad Group/Vintage Group Procedures
Related to Original Cost as of December 31, 2014

Survivor Curve .. IOWA: 57 S1.5

<u>Year</u>	<u>Age</u>	<u>Surviving Investment</u>	<u>BG/VG Average</u>		<u>ASL Weights</u>	<u>RL Weights</u>
			<u>Service Life</u>	<u>Remaining Life</u>		
(1)	(2)	(3)	(4)	(5)	(6)=(3)/(4)	(7)=(6)*(5)
2014	0.5	18,570	57.00	56.50	326	18,406
2013	1.5	1,021,126	57.00	55.50	17,914	994,230
2012	2.5	1,773,749	57.00	54.50	31,118	1,696,016
2011	3.5	3,261,760	57.00	53.51	57,224	3,061,985
2010	4.5	8,520,446	57.00	52.52	149,482	7,850,794
2009	5.5	2,983,568	57.00	51.54	52,343	2,697,612
2008	6.5	1,491,685	57.00	50.56	26,170	1,323,144
2007	7.5	2,504,936	57.00	49.59	43,946	2,179,264
2006	8.5	6,233,996	57.00	48.63	109,368	5,318,198
2005	9.5	313,002	57.00	47.67	5,491	261,781
2004	10.5	1,899,741	57.00	46.73	33,329	1,557,344
2003	11.5	3,451,580	57.00	45.79	60,554	2,772,793
2002	12.5	6,243,022	57.00	44.86	109,527	4,913,829
2001	13.5	5,976,811	57.00	43.95	104,856	4,608,331
2000	14.5	4,874,253	57.00	43.04	85,513	3,680,887
1999	15.5	1,921,946	57.00	42.15	33,718	1,421,282
1998	16.5	715,146	57.00	41.27	12,546	517,795
1997	17.5	6,210,319	57.00	40.40	108,953	4,401,921
1996	18.5	2,133,627	57.00	39.55	37,432	1,480,292
1995	19.5	3,158,003	57.00	38.70	55,404	2,144,273
1994	20.5	2,336,674	57.00	37.87	40,994	1,552,559
1993	21.5	2,444,653	57.00	37.06	42,889	1,589,306
1992	22.5	1,997,299	57.00	36.25	35,040	1,270,347
1991	23.5	1,114,018	57.00	35.46	19,544	693,125
1990	24.5	4,084,859	57.00	34.69	71,664	2,485,946
1989	25.5	2,205,333	57.00	33.93	38,690	1,312,676
1988	26.5	3,808,708	57.00	33.18	66,819	2,217,124
1987	27.5	1,194,679	57.00	32.45	20,959	680,071
1986	28.5	766,006	57.00	31.73	13,439	426,374
1985	29.5	2,264,960	57.00	31.02	39,736	1,232,706

1984	30.5	2,502,965	57.00	30.33	43,912	1,331,874
1983	31.5	497,690	57.00	29.65	8,731	258,909
1982	32.5	1,380,423	57.00	28.99	24,218	702,023
1981	33.5	1,937,096	57.00	28.34	33,984	963,015
1980	34.5	898,234	57.00	27.70	15,758	436,506
1979	35.5	942,957	57.00	27.08	16,543	447,906
1978	36.5	536,753	57.00	26.46	9,417	249,195
1977	37.5	1,007,540	57.00	25.86	17,676	457,183
1976	38.5	168,530	57.00	25.28	2,957	74,739
1975	39.5	824,938	57.00	24.70	14,473	357,529
1974	40.5	406,690	57.00	24.14	7,135	172,246
1973	41.5	619,374	57.00	23.59	10,866	256,346
1972	42.5	62,437	57.00	23.05	1,095	25,251
1971	43.5	111,546	57.00	22.52	1,957	44,080
1970	44.5	981,034	57.00	22.01	17,211	378,780
1969	45.5	16,995	57.00	21.50	298	6,411
1968	46.5	209,467	57.00	21.01	3,675	77,198
1967	47.5	465,150	57.00	20.52	8,161	167,468
1966	48.5	103,986	57.00	20.05	1,824	36,571
1965	49.5	4,026	57.00	19.58	71	1,383
1964	50.5	139,369	57.00	19.13	2,445	46,762
1963	51.5	199,400	57.00	18.68	3,498	65,341
1962	52.5	173,625	57.00	18.24	3,046	55,561
1961	53.5	64,272	57.00	17.81	1,128	20,083
1960	54.5	12,347	57.00	17.39	217	3,767
1959	55.5	77,898	57.00	16.98	1,367	23,202
1958	56.5	44,987	57.00	16.57	789	13,080
1957	57.5	135,501	57.00	16.18	2,377	38,454
1956	58.5	219,187	57.00	15.79	3,845	60,705
1955	59.5	164,411	57.00	15.40	2,884	44,432
1954	60.5	109,498	57.00	15.03	1,921	28,871
1953	61.5	77,044	57.00	14.66	1,352	19,816
1952	62.5	27,997	57.00	14.30	491	7,023
1951	63.5	40,790	57.00	13.94	716	9,978
1950	64.5	178,382	57.00	13.59	3,130	42,542
1949	65.5	17,625	57.00	13.25	309	4,097
1948	66.5	240,987	57.00	12.91	4,228	54,592
1947	67.5	22,684	57.00	12.58	398	5,006
1946	68.5	29,612	57.00	12.25	520	6,366
1945	69.5	4,714	57.00	11.93	83	987
1944	70.5	18	57.00	11.61	0	4
1943	71.5	23,018	57.00	11.30	404	4,564
1942	72.5	63,830	57.00	11.00	1,120	12,313
1941	73.5	7,910	57.00	10.69	139	1,484
1940	74.5	14,560	57.00	10.39	255	2,655
1939	75.5	5,094	57.00	10.10	89	902
1938	76.5	6,147	57.00	9.81	108	1,058

1937	77.5	109,674	57.00	9.52	1,924	18,318
1936	78.5	0	57.00	9.24	0	0
1935	79.5	0	57.00	8.95	0	0
1934	80.5	0	57.00	8.68	0	0
1933	81.5	0	57.00	8.40	0	0
1932	82.5	9,047	57.00	8.13	159	1,291
1931	83.5	12,613	57.00	7.86	221	1,740
1930	84.5	6,524	57.00	7.60	114	869
1929	85.5	1,985	57.00	7.33	35	255
1928	86.5	0	57.00	7.07	0	0
1927	87.5	4,129	57.00	6.81	72	493
1926	88.5	0	57.00	6.55	0	0
1925	89.5	0	57.00	6.30	0	0
1924	90.5	1,423	57.00	6.04	25	151
1923	91.5	0	57.00	5.78	0	0
1922	92.5	0	57.00	5.53	0	0
1921	93.5	0	57.00	5.28	0	0
1920	94.5	0	57.00	5.03	0	0
1919	95.5	0	57.00	4.77	0	0
1918	96.5	0	57.00	4.52	0	0
1917	97.5	0	57.00	4.27	0	0
1916	98.5	0	57.00	4.02	0	0
1915	99.5	0	57.00	3.77	0	0
1914	100.5	0	57.00	3.51	0	0
1913	101.5	0	57.00	3.26	0	0
1912	102.5	0	57.00	3.01	0	0
1911	103.5	0	57.00	2.75	0	0
1910	104.5	0	57.00	2.50	0	0
1909	105.5	0	57.00	2.25	0	0
1908	106.5	0	57.00	1.99	0	0
1907	107.5	0	57.00	1.74	0	0
1906	108.5	0	57.00	1.48	0	0
1905	109.5	0	57.00	1.24	0	0
1904	110.5	0	57.00	0.99	0	0
1903	111.5	0	57.00	0.75	0	0
1902	112.5	0	57.00	0.55	0	0
1901	113.5	0	57.00	0.50	0	0
1900	114.5	0	57.00	0.50	0	0

102,848,608

1,804,362 73,401,787

AVERAGE SERVICE LIFE	57.00
AVERAGE REMAINING LIFE	40.68

Observed Life Table Results**Empire District Elec****Account: 355.00 -**

Age	Exposures	Retirements	Retirement Ratio (%)	Survivor Ratio (%)	Cumulative Survivors
BAND		1900 - 2014			
0	65,004,054	848,633	1.3055	98.6945	1.0000
0.5	64,700,813	80	0.0001	99.9999	0.9869
1.5	64,654,670	45,487	0.0704	99.9296	0.9869
2.5	61,251,856	56,952	0.0930	99.9070	0.9862
3.5	57,494,115	50,387	0.0876	99.9124	0.9853
4.5	54,132,098	21,101	0.0390	99.9610	0.9845
5.5	51,732,310	5,411	0.0105	99.9895	0.9841
6.5	49,902,618	9,432	0.0189	99.9811	0.9840
7.5	46,394,170	1,227	0.0026	99.9974	0.9838
8.5	44,870,692	2,927	0.0065	99.9935	0.9838
9.5	43,895,902	5,895	0.0134	99.9866	0.9837
10.5	42,560,651	12,991	0.0305	99.9695	0.9836
11.5	40,828,710	2,102	0.0051	99.9949	0.9833
12.5	40,036,418	2,229	0.0056	99.9944	0.9832
13.5	39,617,086	10,064	0.0254	99.9746	0.9832
14.5	38,069,414	17,397	0.0457	99.9543	0.9829
15.5	36,836,230	14,836	0.0403	99.9597	0.9825
16.5	35,540,098	23,072	0.0649	99.9351	0.9821
17.5	30,586,790	13,134	0.0429	99.9571	0.9814
18.5	29,947,153	20,811	0.0695	99.9305	0.9810
19.5	28,795,155	18,205	0.0632	99.9368	0.9803
20.5	27,362,676	87,566	0.3200	99.6800	0.9797
21.5	26,337,150	21,840	0.0829	99.9171	0.9766
22.5	25,885,280	27,259	0.1053	99.8947	0.9758
23.5	25,426,439	17,220	0.0677	99.9323	0.9747
24.5	23,635,965	34,588	0.1463	99.8537	0.9741
25.5	21,976,304	91,868	0.4180	99.5820	0.9727
26.5	17,317,765	74,083	0.4278	99.5722	0.9686
27.5	16,477,810	62,898	0.3817	99.6183	0.9644
28.5	14,943,039	34,418	0.2303	99.7697	0.9608
29.5	14,359,655	44,996	0.3134	99.6866	0.9586
30.5	11,008,423	55,242	0.5018	99.4982	0.9555
31.5	10,596,213	28,190	0.2660	99.7340	0.9508
32.5	10,217,237	37,763	0.3696	99.6304	0.9482
33.5	8,606,698	12,148	0.1411	99.8589	0.9447
34.5	5,447,283	41,168	0.7558	99.2442	0.9434
35.5	5,362,660	34,070	0.6353	99.3647	0.9363
36.5	5,104,894	30,453	0.5965	99.4035	0.9303
37.5	4,737,549	50,147	1.0585	98.9415	0.9248
38.5	4,475,566	37,862	0.8460	99.1540	0.9150

39.5	4,217,357	49,175	1.1660	98.8340	0.9072
40.5	4,031,726	34,561	0.8572	99.1428	0.8967
41.5	3,188,492	41,937	1.3153	98.6847	0.8890
42.5	3,045,306	42,095	1.3823	98.6177	0.8773
43.5	2,835,533	73,169	2.5804	97.4196	0.8651
44.5	2,579,937	23,860	0.9248	99.0752	0.8428
45.5	2,499,811	51,708	2.0685	97.9315	0.8350
46.5	2,355,847	63,883	2.7117	97.2883	0.8178
47.5	2,168,622	53,622	2.4726	97.5274	0.7956
48.5	2,025,143	96,325	4.7565	95.2435	0.7759
49.5	1,800,123	93,655	5.2027	94.7973	0.7390
50.5	1,640,740	62,950	3.8367	96.1633	0.7006
51.5	1,493,890	53,516	3.5823	96.4177	0.6737
52.5	1,324,892	64,158	4.8425	95.1575	0.6495
53.5	1,216,433	46,769	3.8448	96.1552	0.6181
54.5	1,141,918	64,000	5.6046	94.3954	0.5943
55.5	1,025,756	62,814	6.1237	93.8763	0.5610
56.5	911,103	18,462	2.0263	97.9737	0.5267
57.5	821,792	27,694	3.3700	96.6300	0.5160
58.5	745,979	22,690	3.0416	96.9584	0.4986
59.5	703,741	6,213	0.8829	99.1171	0.4834
60.5	666,521	18,697	2.8052	97.1948	0.4792
61.5	605,078	28,884	4.7736	95.2264	0.4657
62.5	549,417	11,255	2.0485	97.9515	0.4435
63.5	515,073	13,636	2.6474	97.3526	0.4344
64.5	487,103	5,232	1.0741	98.9259	0.4229
65.5	449,725	39,437	8.7691	91.2309	0.4184
66.5	163,776	24,984	15.2550	84.7450	0.3817
67.5	133,842	6,871	5.1337	94.8663	0.3235
68.5	124,943	8,642	6.9168	93.0832	0.3068
69.5	113,554	4,356	3.8361	96.1639	0.2856
70.5	107,814	5,190	4.8138	95.1862	0.2747
71.5	97,447	4,333	4.4465	95.5535	0.2614
72.5	89,570	2,029	2.2653	97.7347	0.2498
73.5	84,980	1,387	1.6321	98.3679	0.2442
74.5	81,848	6,340	7.7461	92.2539	0.2402
75.5	74,300	13,922	18.7376	81.2624	0.2216
76.5	58,994	37,652	63.8234	36.1766	0.1801
77.5	9,595	0	0.0000	100.0000	0.0651
78.5	5,543	0	0.0000	100.0000	0.0651
79.5	5,539	0	0.0000	100.0000	0.0651
80.5	5,523	0	0.0000	100.0000	0.0651
81.5	5,523	0	0.0000	100.0000	0.0651
82.5	5,523	0	0.0000	100.0000	0.0651
83.5	5,523	0	0.0000	100.0000	0.0651
84.5	5,523	0	0.0000	100.0000	0.0651
85.5	5,523	0	0.0000	100.0000	0.0651

86.5	5,523	0	0.0000	100.0000	0.0651
87.5	5,523	0	0.0000	100.0000	0.0651
88.5	5,523	0	0.0000	100.0000	0.0651
89.5	5,523	0	0.0000	100.0000	0.0651
90.5	5,523	0	0.0000	100.0000	0.0651
91.5	5,523	0	0.0000	100.0000	0.0651
92.5	5,523	0	0.0000	100.0000	0.0651
93.5	5,523	0	0.0000	100.0000	0.0651
94.5	5,523	0	0.0000	100.0000	0.0651
95.5	5,523	0	0.0000	100.0000	0.0651
96.5	5,523	0	0.0000	100.0000	0.0651
97.5	5,523	0	0.0000	100.0000	0.0651
98.5	5,523	21	0.3802	99.6198	0.0651
99.5	5,502	4	0.0727	99.9273	0.0649
100.5	5,498	0	0.0000	100.0000	0.0648
101.5	5,498	0	0.0000	100.0000	0.0648
102.5	5,498	75	1.3641	98.6359	0.0648
103.5	5,423	74	1.3646	98.6354	0.0640
104.5	5,349	21	0.3926	99.6074	0.0631
105.5	5,328	0	0.0000	100.0000	0.0628
106.5	5,328	0	0.0000	100.0000	0.0628
107.5	5,328	22	0.4129	99.5871	0.0628
108.5	5,306	0	0.0000	100.0000	0.0626
109.5	5,306	13	0.2450	99.7550	0.0626
110.5	5,293	0	0.0000	100.0000	0.0624
111.5	5,293	44	0.8313	99.1687	0.0624
112.5	5,249	15	0.2858	99.7142	0.0619
113.5	5,234	2,770	52.9232	47.0768	0.0617

Best Fit Curve Results

Empire District Elec

Account: 355.00 -

Curve	Life	Sum of Squared Differences
BAND	1900 - 2014	
L3	61.0	506.989
S3	60.0	624.502
S2	60.0	658.043
R3	59.0	720.529
R2.5	59.0	1,045.714
S1.5	61.0	1,553.468
L4	61.0	1,560.916
R2	59.0	2,303.244
R4	60.0	2,688.712
S1	61.0	3,021.014
L2	61.0	3,423.553
S4	60.0	3,972.347
R1.5	59.0	4,436.151
S0.5	61.0	4,997.119
L1.5	61.0	5,773.249
L5	60.0	6,103.617
R1	60.0	7,428.243
S0	61.0	7,626.297
R5	60.0	8,890.678
L1	61.0	9,019.421
S5	60.0	10,763.871
R0.5	61.0	11,365.876
S-0.5	61.0	11,456.511
L0.5	61.0	12,340.150
O1	61.0	16,323.636
L0	61.0	16,401.019
S6	60.0	19,368.580
O2	61.0	20,439.824
SQ	59.0	40,179.623
O3	61.0	43,469.202
O4	61.0	71,978.104

Analytical Parameters

OLT Placement Band: 1900 - 2014

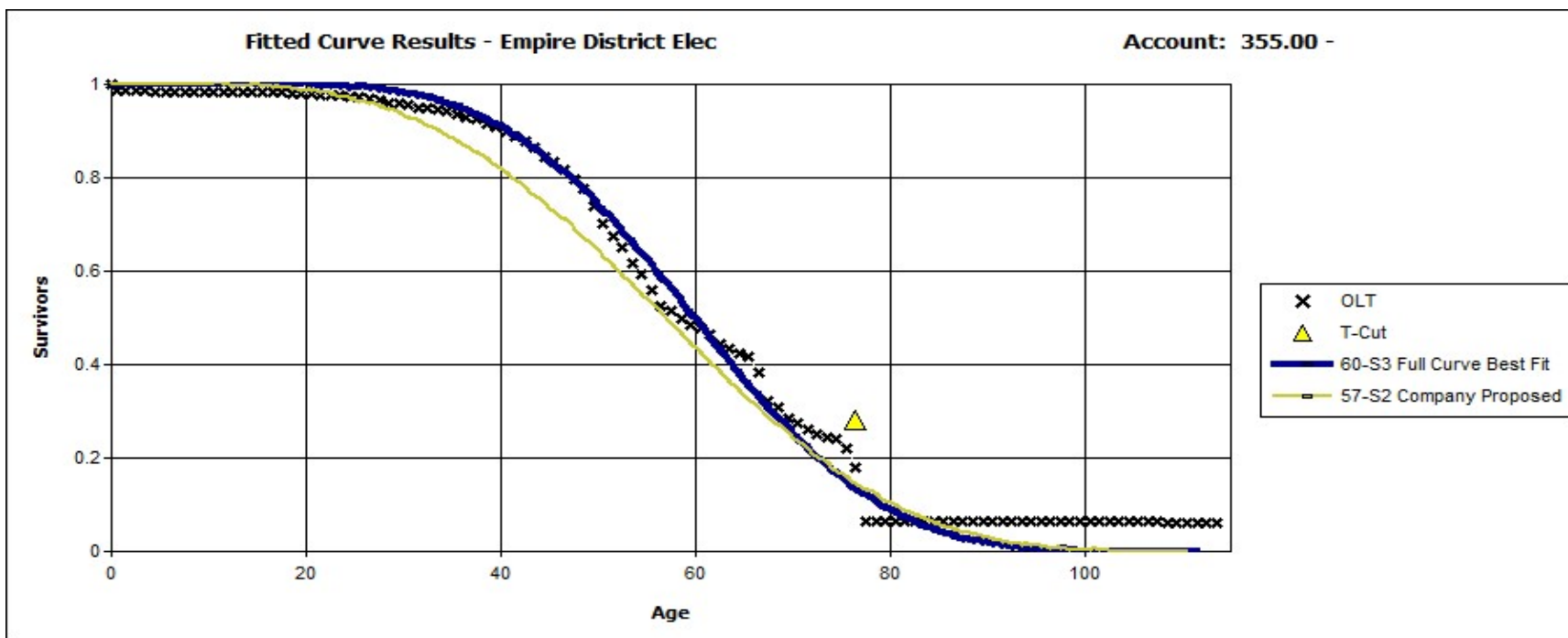
OLT Experience Band: 1900 - 2014

Minimum Life Parameter 3

Maximum Life Paramete 61

Life Increment Paramete 1

Max Age (T-Cut): 76.5



Analytical Parameters

OLT Placement Band:	1900 - 2014
OLT Experience Band:	1900 - 2014
Minimum Life Parameter:	3
Maximum Life Parameter:	61
Life Increment Parameter:	1
Max Age (T-Cut):	78.0

Empire District Elec

355.00 -

Calculation of Remaining Life
Based Upon Broad Group/Vintage Group Procedures
Related to Original Cost as of December 31, 2014

Survivor Curve .. IOWA:		60	S3			
<u>Year</u>	<u>Age</u>	<u>Surviving Investment</u>	<u>BG/VG Average</u>		<u>ASL Weights</u>	<u>RL Weights</u>
			<u>Service Life</u>	<u>Remaining Life</u>		
(1)	(2)	(3)	(4)	(5)	(6)=(3)/(4)	(7)=(6)*(5)
2014	0.5	2,231,282	60.00	59.50	37,188	2,212,606
2013	1.5	2,427,343	60.00	58.50	40,456	2,366,571
2012	2.5	4,498,891	60.00	57.50	74,982	4,311,273
2011	3.5	4,294,863	60.00	56.50	71,581	4,044,172
2010	4.5	3,416,522	60.00	55.50	56,942	3,160,158
2009	5.5	3,566,877	60.00	54.50	59,448	3,239,783
2008	6.5	2,676,898	60.00	53.50	44,615	2,386,803
2007	7.5	3,501,858	60.00	52.50	58,364	3,064,002
2006	8.5	1,522,251	60.00	51.50	25,371	1,306,548
2005	9.5	971,863	60.00	50.50	16,198	817,955
2004	10.5	1,329,356	60.00	49.50	22,156	1,096,686
2003	11.5	1,718,950	60.00	48.50	28,649	1,389,461
2002	12.5	790,190	60.00	47.50	13,170	625,571
2001	13.5	417,424	60.00	46.50	6,957	323,518
2000	14.5	1,537,608	60.00	45.50	25,627	1,166,140
1999	15.5	1,215,787	60.00	44.51	20,263	901,884
1998	16.5	1,281,296	60.00	43.51	21,355	929,245
1997	17.5	4,930,236	60.00	42.52	82,171	3,494,062
1996	18.5	626,653	60.00	41.53	10,444	433,775
1995	19.5	1,131,550	60.00	40.55	18,859	764,676
1994	20.5	1,414,370	60.00	39.56	23,573	932,652
1993	21.5	937,960	60.00	38.59	15,633	603,230
1992	22.5	430,030	60.00	37.62	7,167	269,607
1991	23.5	431,582	60.00	36.65	7,193	263,643
1990	24.5	1,773,254	60.00	35.70	29,554	1,054,970
1989	25.5	1,625,073	60.00	34.75	27,085	941,151
1988	26.5	4,566,671	60.00	33.81	76,111	2,573,363
1987	27.5	765,872	60.00	32.88	12,765	419,743
1986	28.5	1,471,873	60.00	31.97	24,531	784,233
1985	29.5	548,966	60.00	31.07	9,149	284,238

1984	30.5	3,306,236	60.00	30.18	55,104	1,662,910
1983	31.5	356,968	60.00	29.30	5,949	174,345
1982	32.5	351,419	60.00	28.45	5,857	166,606
1981	33.5	1,572,792	60.00	27.60	26,213	723,582
1980	34.5	3,161,854	60.00	26.78	52,698	1,411,197
1979	35.5	44,479	60.00	25.97	741	19,253
1978	36.5	225,840	60.00	25.18	3,764	94,785
1977	37.5	337,712	60.00	24.41	5,629	137,401
1976	38.5	214,671	60.00	23.66	3,578	84,649
1975	39.5	225,699	60.00	22.93	3,762	86,240
1974	40.5	139,428	60.00	22.21	2,324	51,618
1973	41.5	812,237	60.00	21.52	13,537	291,292
1972	42.5	102,081	60.00	20.84	1,701	35,460
1971	43.5	169,167	60.00	20.19	2,819	56,916
1970	44.5	182,633	60.00	19.55	3,044	59,506
1969	45.5	72,696	60.00	18.93	1,212	22,937
1968	46.5	92,423	60.00	18.33	1,540	28,239
1967	47.5	123,342	60.00	17.75	2,056	36,490
1966	48.5	93,241	60.00	17.19	1,554	26,709
1965	49.5	129,543	60.00	16.64	2,159	35,930
1964	50.5	67,565	60.00	16.11	1,126	18,144
1963	51.5	88,187	60.00	15.60	1,470	22,930
1962	52.5	118,002	60.00	15.11	1,967	29,708
1961	53.5	44,392	60.00	14.63	740	10,821
1960	54.5	27,776	60.00	14.16	463	6,555
1959	55.5	53,320	60.00	13.71	889	12,184
1958	56.5	52,786	60.00	13.28	880	11,679
1957	57.5	72,444	60.00	12.85	1,207	15,520
1956	58.5	48,537	60.00	12.45	809	10,068
1955	59.5	35,452	60.00	12.05	591	7,120
1954	60.5	34,056	60.00	11.67	568	6,622
1953	61.5	42,746	60.00	11.30	712	8,048
1952	62.5	26,777	60.00	10.94	446	4,881
1951	63.5	23,089	60.00	10.59	385	4,074
1950	64.5	14,434	60.00	10.25	241	2,466
1949	65.5	32,146	60.00	9.92	536	5,316
1948	66.5	246,512	60.00	9.60	4,109	39,458
1947	67.5	4,950	60.00	9.29	83	767
1946	68.5	2,028	60.00	9.00	34	304
1945	69.5	2,747	60.00	8.70	46	399
1944	70.5	1,384	60.00	8.42	23	194
1943	71.5	5,177	60.00	8.15	86	703
1942	72.5	3,544	60.00	7.88	59	465
1941	73.5	2,561	60.00	7.62	43	325
1940	74.5	1,745	60.00	7.37	29	214
1939	75.5	1,208	60.00	7.12	20	143
1938	76.5	1,384	60.00	6.88	23	159

1937	77.5	11,747	60.00	6.64	196	1,301
1936	78.5	4,052	60.00	6.42	68	433
1935	79.5	4	60.00	6.19	0	0
1934	80.5	16	60.00	5.98	0	2
1933	81.5	0	60.00	5.76	0	0
1932	82.5	0	60.00	5.55	0	0
1931	83.5	0	60.00	5.35	0	0
1930	84.5	0	60.00	5.16	0	0
1929	85.5	0	60.00	4.96	0	0
1928	86.5	0	60.00	4.77	0	0
1927	87.5	0	60.00	4.59	0	0
1926	88.5	0	60.00	4.40	0	0
1925	89.5	0	60.00	4.23	0	0
1924	90.5	0	60.00	4.05	0	0
1923	91.5	0	60.00	3.87	0	0
1922	92.5	0	60.00	3.71	0	0
1921	93.5	0	60.00	3.54	0	0
1920	94.5	0	60.00	3.38	0	0
1919	95.5	0	60.00	3.22	0	0
1918	96.5	0	60.00	3.06	0	0
1917	97.5	0	60.00	2.89	0	0
1916	98.5	0	60.00	2.74	0	0
1915	99.5	0	60.00	2.59	0	0
1914	100.5	0	60.00	2.43	0	0
1913	101.5	0	60.00	2.28	0	0
1912	102.5	0	60.00	2.12	0	0
1911	103.5	0	60.00	1.96	0	0
1910	104.5	0	60.00	1.80	0	0
1909	105.5	0	60.00	1.63	0	0
1908	106.5	0	60.00	1.45	0	0
1907	107.5	0	60.00	1.27	0	0
1906	108.5	0	60.00	1.11	0	0
1905	109.5	0	60.00	0.93	0	0
1904	110.5	0	60.00	0.87	0	0
1903	111.5	0	60.00	0.50	0	0
1902	112.5	0	60.00	0.50	0	0
1901	113.5	0	60.00	0.50	0	0
1900	114.5	2,464	60.00	0.50	41	21

70,841,042

1,180,684 51,588,806

AVERAGE SERVICE LIFE

60.00

AVERAGE REMAINING LIFE

43.69

Observed Life Table Results**Empire District Elec****Account: 361.00 -**

Age	Exposures	Retirements	Retirement Ratio (%)	Survivor Ratio (%)	Cumulative Survivors
BAND		1900 - 2009			
0	11,866,465	39,980	0.3369	99.6631	1.0000
0.5	12,339,604	7,266	0.0589	99.9411	0.9966
1.5	12,885,344	272	0.0021	99.9979	0.9960
2.5	12,820,644	4,960	0.0387	99.9613	0.9960
3.5	12,928,351	2,691	0.0208	99.9792	0.9956
4.5	12,842,059	7,825	0.0609	99.9391	0.9954
5.5	12,813,137	3,821	0.0298	99.9702	0.9948
6.5	12,579,900	11,535	0.0917	99.9083	0.9945
7.5	12,615,521	2,157	0.0171	99.9829	0.9936
8.5	12,462,588	6,976	0.0560	99.9440	0.9934
9.5	12,283,256	53,661	0.4369	99.5631	0.9929
10.5	11,258,038	1,049	0.0093	99.9907	0.9886
11.5	11,028,220	10,094	0.0915	99.9085	0.9885
12.5	10,847,685	14,167	0.1306	99.8694	0.9876
13.5	10,443,929	6,486	0.0621	99.9379	0.9863
14.5	10,344,070	22,298	0.2156	99.7844	0.9857
15.5	9,963,187	1,643	0.0165	99.9835	0.9835
16.5	9,049,784	164,386	1.8165	98.1835	0.9834
17.5	8,274,617	23,947	0.2894	99.7106	0.9655
18.5	8,089,274	54,705	0.6763	99.3237	0.9627
19.5	7,800,129	20,923	0.2682	99.7318	0.9562
20.5	7,630,466	9,586	0.1256	99.8744	0.9536
21.5	7,201,086	40,047	0.5561	99.4439	0.9524
22.5	5,632,723	8,025	0.1425	99.8575	0.9471
23.5	4,502,045	17,671	0.3925	99.6075	0.9458
24.5	4,351,799	11,887	0.2732	99.7268	0.9421
25.5	4,291,743	16,302	0.3798	99.6202	0.9395
26.5	3,839,995	29,746	0.7746	99.2254	0.9359
27.5	3,743,265	10,055	0.2686	99.7314	0.9287
28.5	3,010,688	3,586	0.1191	99.8809	0.9262
29.5	1,873,959	5,636	0.3008	99.6992	0.9251
30.5	1,668,007	396	0.0237	99.9763	0.9223
31.5	1,229,138	1,395	0.1135	99.8865	0.9221
32.5	1,215,811	545	0.0448	99.9552	0.9210
33.5	1,187,077	611	0.0515	99.9485	0.9206
34.5	1,139,552	12,692	1.1138	98.8862	0.9202
35.5	1,120,422	9,600	0.8568	99.1432	0.9099
36.5	1,104,639	5,688	0.5149	99.4851	0.9021
37.5	1,078,708	13,147	1.2188	98.7812	0.8975
38.5	1,045,218	15,211	1.4553	98.5447	0.8865

39.5	1,013,630	14,788	1.4589	98.5411	0.8736
40.5	971,106	18,120	1.8659	98.1341	0.8609
41.5	945,570	19,772	2.0910	97.9090	0.8448
42.5	866,661	11,351	1.3097	98.6903	0.8271
43.5	836,742	3,525	0.4213	99.5787	0.8163
44.5	840,897	6,777	0.8059	99.1941	0.8129
45.5	810,640	10,142	1.2511	98.7489	0.8063
46.5	772,646	9,524	1.2326	98.7674	0.7962
47.5	636,159	13,031	2.0484	97.9516	0.7864
48.5	540,114	3,186	0.5899	99.4101	0.7703
49.5	414,886	1,194	0.2878	99.7122	0.7658
50.5	389,901	0	0.0000	100.0000	0.7636
51.5	370,018	19,482	5.2651	94.7349	0.7636
52.5	345,210	9,011	2.6103	97.3897	0.7234
53.5	299,069	15,623	5.2239	94.7761	0.7045
54.5	281,318	1,076	0.3825	99.6175	0.6677
55.5	272,448	2,627	0.9642	99.0358	0.6651
56.5	255,896	4,529	1.7699	98.2301	0.6587
57.5	243,604	5,305	2.1777	97.8223	0.6471
58.5	238,586	2,984	1.2507	98.7493	0.6330
59.5	232,772	1,461	0.6277	99.3723	0.6250
60.5	231,224	47,093	20.3668	79.6332	0.6211
61.5	182,755	12,311	6.7363	93.2637	0.4946
62.5	191,103	841	0.4401	99.5599	0.4613
63.5	203,619	698	0.3428	99.6572	0.4593
64.5	203,114	19,910	9.8024	90.1976	0.4577
65.5	189,105	13,559	7.1701	92.8299	0.4128
66.5	176,793	3,365	1.9034	98.0966	0.3832
67.5	182,075	1,999	1.0979	98.9021	0.3759
68.5	182,246	2,905	1.5940	98.4060	0.3718
69.5	178,445	2,398	1.3438	98.6562	0.3659
70.5	168,734	3,253	1.9279	98.0721	0.3610
71.5	160,183	255	0.1592	99.8408	0.3540
72.5	57,492	8,103	14.0941	85.9059	0.3534
73.5	50,345	0	0.0000	100.0000	0.3036
74.5	50,345	553	1.0984	98.9016	0.3036
75.5	49,792	956	1.9200	98.0800	0.3003
76.5	55,363	0	0.0000	100.0000	0.2945
77.5	57,863	2,620	4.5279	95.4721	0.2945
78.5	54,987	6,407	11.6518	88.3482	0.2812
79.5	48,580	0	0.0000	100.0000	0.2484
80.5	48,424	0	0.0000	100.0000	0.2484
81.5	16,620	0	0.0000	100.0000	0.2484
82.5	4,454	0	0.0000	100.0000	0.2484
83.5	2,392	0	0.0000	100.0000	0.2484
84.5	2,392	0	0.0000	100.0000	0.2484
85.5	960	0	0.0000	100.0000	0.2484

86.5	960	0	0.0000	100.0000	0.2484
87.5	960	0	0.0000	100.0000	0.2484
88.5	960	0	0.0000	100.0000	0.2484
89.5	960	0	0.0000	100.0000	0.2484
90.5	960	0	0.0000	100.0000	0.2484
91.5	960	0	0.0000	100.0000	0.2484
92.5	960	0	0.0000	100.0000	0.2484
93.5	960	0	0.0000	100.0000	0.2484
94.5	960	0	0.0000	100.0000	0.2484
95.5	960	0	0.0000	100.0000	0.2484
96.5	960	0	0.0000	100.0000	0.2484
97.5	960	0	0.0000	100.0000	0.2484
98.5	960	0	0.0000	100.0000	0.2484
99.5	960	0	0.0000	100.0000	0.2484
100.5	960	0	0.0000	100.0000	0.2484
101.5	960	0	0.0000	100.0000	0.2484
102.5	960	0	0.0000	100.0000	0.2484
103.5	960	0	0.0000	100.0000	0.2484
104.5	960	0	0.0000	100.0000	0.2484
105.5	960	0	0.0000	100.0000	0.2484
106.5	960	0	0.0000	100.0000	0.2484
107.5	960	0	0.0000	100.0000	0.2484
108.5	960	0	0.0000	100.0000	0.2484

Best Fit Curve Results

Empire District Elec

Account: 361.00 -

Curve	Life	Sum of Squared Differences
BAND	1900 - 2009	
R2.5	62.0	515.526
S2	63.0	626.293
S1.5	64.0	720.831
L3	66.0	794.812
R3	62.0	946.723
R2	62.0	980.504
L2	68.0	1,221.959
S1	64.0	1,438.466
S3	63.0	1,840.042
R1.5	62.0	2,294.119
L1.5	69.0	2,294.437
S0.5	65.0	2,599.435
L4	64.0	3,176.452
R4	63.0	3,976.513
L1	71.0	4,107.544
S0	66.0	4,331.569
R1	63.0	4,390.847
L0.5	74.0	5,816.603
S4	64.0	6,190.216
S-0.5	68.0	7,021.393
R0.5	66.0	7,319.743
L0	75.0	8,071.067
L5	64.0	8,366.976
O1	72.0	10,412.630
O2	75.0	10,973.602
R5	64.0	11,130.210
S5	64.0	13,203.052
S6	63.0	21,571.841
O3	75.0	25,603.096
SQ	61.0	40,344.864
O4	75.0	49,410.788

Analytical Parameters

OLT Placement Band: 1900 - 2009

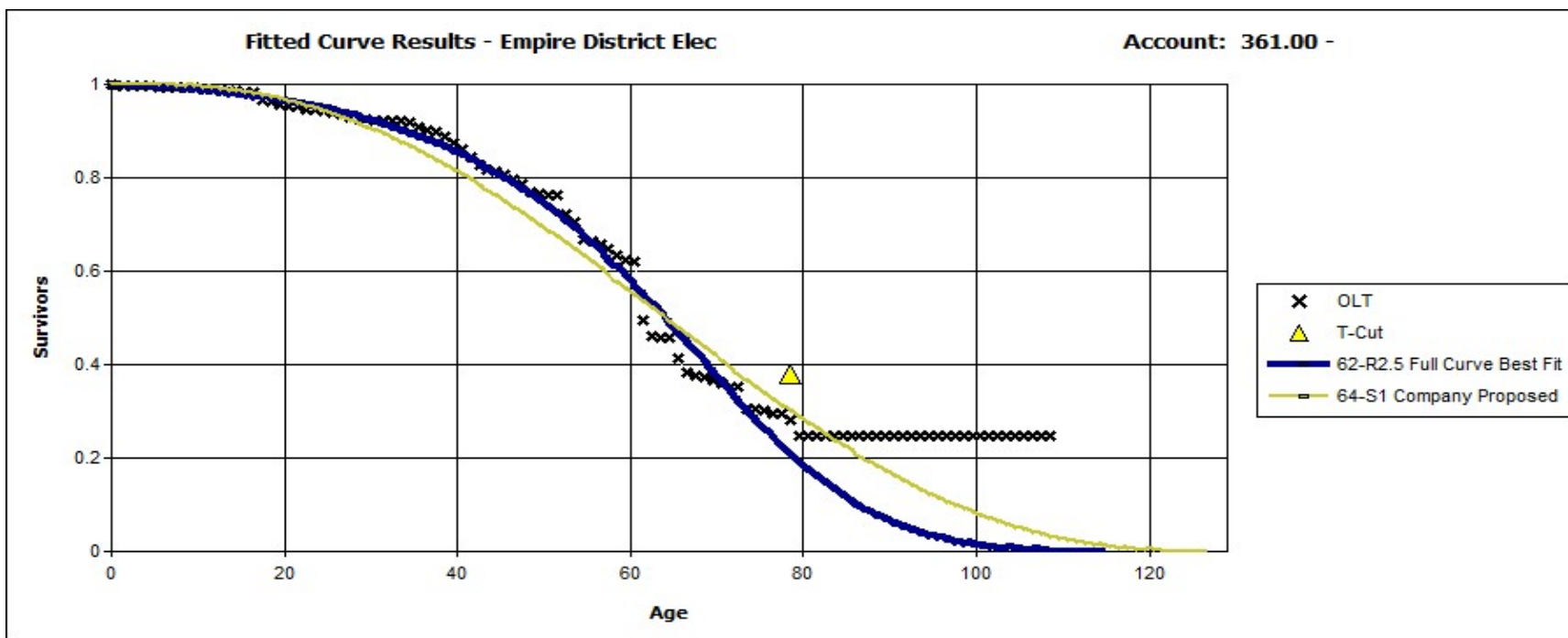
OLT Experience Band: 1900 - 2009

Minimum Life Parameter 4

Maximum Life Paramete 75

Life Increment Paramete 1

Max Age (T-Cut): 78.5



Analytical Parameters

OLT Placement Band:	1900 - 2009
OLT Experience Band:	1900 - 2009
Minimum Life Parameter:	4
Maximum Life Parameter:	75
Life Increment Parameter:	1
Max Age (T-Cut):	80.0

Empire District Elec

361.00 GenArm -

Calculation of Remaining Life
Based Upon Broad Group/Vintage Group Procedures
Related to Original Cost as of December 31, 2014

Survivor Curve .. IOWA: 62 R2.5

<u>Year</u>	<u>Age</u>	<u>Surviving</u> <u>Investment</u>	<u>BG/VG Average</u>		<u>ASL</u> <u>Weights</u>	<u>RL</u> <u>Weights</u>
			<u>Service</u> <u>Life</u>	<u>Remaining</u> <u>Life</u>		
(1)	(2)	(3)	(4)	(5)	(6)=(3)/(4)	(7)=(6)*(5)
2014	0.5	0	62.00	61.53	0	0
2013	1.5	0	62.00	60.58	0	0
2012	2.5	0	62.00	59.64	0	0
2011	3.5	0	62.00	58.71	0	0
2010	4.5	0	62.00	57.77	0	0
2009	5.5	10,214	62.00	56.84	165	9,364
2008	6.5	240,585	62.00	55.92	3,880	216,974
2007	7.5	294,707	62.00	54.99	4,753	261,397
2006	8.5	122,727	62.00	54.07	1,979	107,037
2005	9.5	112,008	62.00	53.16	1,807	96,035
2004	10.5	110,184	62.00	52.25	1,777	92,852
2003	11.5	229,416	62.00	51.34	3,700	189,975
2002	12.5	11,133	62.00	50.44	180	9,057
2001	13.5	150,776	62.00	49.54	2,432	120,479
2000	14.5	173,832	62.00	48.65	2,804	136,400
1999	15.5	971,557	62.00	47.76	15,670	748,431
1998	16.5	228,769	62.00	46.88	3,690	172,975
1997	17.5	177,925	62.00	46.00	2,870	132,014
1996	18.5	389,589	62.00	45.13	6,284	283,583
1995	19.5	93,373	62.00	44.26	1,506	66,662
1994	20.5	359,925	62.00	43.40	5,805	251,967
1993	21.5	386,072	62.00	42.55	6,227	264,951
1992	22.5	600,529	62.00	41.70	9,686	403,910
1991	23.5	123,133	62.00	40.86	1,986	81,145
1990	24.5	235,251	62.00	40.02	3,794	151,860
1989	25.5	149,599	62.00	39.19	2,413	94,568
1988	26.5	336,740	62.00	38.37	5,431	208,399
1987	27.5	1,344,512	62.00	37.55	21,686	814,387
1986	28.5	217,116	62.00	36.74	3,502	128,675
1985	29.5	125,975	62.00	35.94	2,032	73,031

1984	30.5	51,324	62.00	35.15	828	29,095
1983	31.5	435,446	62.00	34.36	7,023	241,321
1982	32.5	69,816	62.00	33.58	1,126	37,813
1981	33.5	629,708	62.00	32.81	10,157	333,203
1980	34.5	78,655	62.00	32.04	1,269	40,649
1979	35.5	200,315	62.00	31.28	3,231	101,077
1978	36.5	58,770	62.00	30.54	948	28,944
1977	37.5	6,534	62.00	29.79	105	3,140
1976	38.5	28,189	62.00	29.06	455	13,213
1975	39.5	41,736	62.00	28.34	673	19,076
1974	40.5	6,438	62.00	27.62	104	2,868
1973	41.5	8,626	62.00	26.91	139	3,745
1972	42.5	20,286	62.00	26.22	327	8,578
1971	43.5	20,383	62.00	25.53	329	8,393
1970	44.5	17,705	62.00	24.85	286	7,096
1969	45.5	43,748	62.00	24.18	706	17,062
1968	46.5	8,715	62.00	23.52	141	3,306
1967	47.5	64,403	62.00	22.87	1,039	23,760
1966	48.5	19,210	62.00	22.23	310	6,889
1965	49.5	8,091	62.00	21.61	131	2,820
1964	50.5	21,161	62.00	20.99	341	7,165
1963	51.5	40,620	62.00	20.39	655	13,357
1962	52.5	128,451	62.00	19.80	2,072	41,013
1961	53.5	86,030	62.00	19.22	1,388	26,663
1960	54.5	122,606	62.00	18.65	1,978	36,876
1959	55.5	26,283	62.00	18.09	424	7,670
1958	56.5	20,486	62.00	17.55	330	5,799
1957	57.5	5,572	62.00	17.02	90	1,530
1956	58.5	37,977	62.00	16.51	613	10,112
1955	59.5	2,447	62.00	16.01	39	632
1954	60.5	265	62.00	15.52	4	66
1953	61.5	14,189	62.00	15.05	229	3,444
1952	62.5	8,328	62.00	14.59	134	1,960
1951	63.5	324	62.00	14.14	5	74
1950	64.5	2,727	62.00	13.71	44	603
1949	65.5	2,015	62.00	13.30	33	432
1948	66.5	6,458	62.00	12.89	104	1,343
1947	67.5	955	62.00	12.51	15	193
1946	68.5	1,518	62.00	12.13	24	297
1945	69.5	2,911	62.00	11.77	47	552
1944	70.5	417	62.00	11.42	7	77
1943	71.5	446	62.00	11.08	7	80
1942	72.5	1,336	62.00	10.75	22	232
1941	73.5	1,014	62.00	10.44	16	171
1940	74.5	783	62.00	10.13	13	128
1939	75.5	6,955	62.00	9.84	112	1,103
1938	76.5	5,076	62.00	9.55	82	782

1937	77.5	101,402	62.00	9.27	1,636	15,165
1936	78.5	0	62.00	9.00	0	0
1935	79.5	0	62.00	8.74	0	0
1934	80.5	0	62.00	8.48	0	0
1933	81.5	0	62.00	8.23	0	0
1932	82.5	0	62.00	7.98	0	0
1931	83.5	0	62.00	7.73	0	0
1930	84.5	0	62.00	7.49	0	0
1929	85.5	156	62.00	7.26	3	18
1928	86.5	13,234	62.00	7.02	213	1,499
1927	87.5	5,798	62.00	6.79	94	635
1926	88.5	2,062	62.00	6.56	33	218
1925	89.5	0	62.00	6.34	0	0
1924	90.5	0	62.00	6.12	0	0
1923	91.5	0	62.00	5.89	0	0
1922	92.5	0	62.00	5.68	0	0
1921	93.5	0	62.00	5.46	0	0
1920	94.5	0	62.00	5.24	0	0
1919	95.5	0	62.00	5.03	0	0
1918	96.5	0	62.00	4.80	0	0
1917	97.5	0	62.00	4.58	0	0
1916	98.5	0	62.00	4.36	0	0
1915	99.5	0	62.00	4.12	0	0
1914	100.5	0	62.00	3.88	0	0
1913	101.5	0	62.00	3.63	0	0
1912	102.5	0	62.00	3.37	0	0
1911	103.5	0	62.00	3.10	0	0
1910	104.5	0	62.00	2.82	0	0
1909	105.5	0	62.00	2.55	0	0
1908	106.5	0	62.00	2.28	0	0
1907	107.5	0	62.00	2.01	0	0
1906	108.5	0	62.00	1.76	0	0
1905	109.5	0	62.00	1.49	0	0
1904	110.5	0	62.00	1.24	0	0
1903	111.5	0	62.00	1.00	0	0
1902	112.5	0	62.00	0.76	0	0
1901	113.5	0	62.00	0.58	0	0
1900	114.5	960	62.00	0.50	15	8

9,684,707

156,205 6,228,074

AVERAGE SERVICE LIFE 62.00
 AVERAGE REMAINING LIFE 39.87

Observed Life Table Results**Empire District Elec****Account: 362.00 -**

Age	Exposures	Retirements	Retirement Ratio (%)	Survivor Ratio (%)	Cumulative Survivors
BAND		1912 - 2013			
0	86,328,950	1,917,551	2.2212	97.7788	1.0000
0.5	85,960,929	235,227	0.2736	99.7264	0.9778
1.5	86,232,921	225,389	0.2614	99.7386	0.9751
2.5	87,514,070	142,089	0.1624	99.8376	0.9726
3.5	87,399,946	364,696	0.4173	99.5827	0.9710
4.5	87,671,011	145,030	0.1654	99.8346	0.9669
5.5	86,288,053	214,779	0.2489	99.7511	0.9653
6.5	79,709,164	210,689	0.2643	99.7357	0.9629
7.5	76,486,110	446,103	0.5832	99.4168	0.9604
8.5	75,160,252	186,478	0.2481	99.7519	0.9548
9.5	72,300,689	91,852	0.1270	99.8730	0.9524
10.5	70,645,916	137,012	0.1939	99.8061	0.9512
11.5	68,216,001	214,733	0.3148	99.6852	0.9494
12.5	63,136,334	87,739	0.1390	99.8610	0.9464
13.5	60,281,229	247,936	0.4113	99.5887	0.9451
14.5	59,440,570	216,702	0.3646	99.6354	0.9412
15.5	57,813,769	268,373	0.4642	99.5358	0.9377
16.5	56,091,901	185,012	0.3298	99.6702	0.9334
17.5	53,139,396	203,371	0.3827	99.6173	0.9303
18.5	49,304,668	164,278	0.3332	99.6668	0.9267
19.5	47,291,306	393,490	0.8321	99.1679	0.9237
20.5	43,319,081	465,046	1.0735	98.9265	0.9160
21.5	38,499,119	220,184	0.5719	99.4281	0.9061
22.5	34,402,738	293,751	0.8539	99.1461	0.9010
23.5	31,266,120	138,970	0.4445	99.5555	0.8933
24.5	27,344,742	113,462	0.4149	99.5851	0.8893
25.5	22,107,438	117,608	0.5320	99.4680	0.8856
26.5	18,455,874	67,276	0.3645	99.6355	0.8809
27.5	17,267,577	227,233	1.3160	98.6840	0.8777
28.5	15,710,458	97,515	0.6207	99.3793	0.8661
29.5	15,200,285	192,853	1.2687	98.7313	0.8608
30.5	14,132,297	119,140	0.8430	99.1570	0.8498
31.5	12,428,458	214,569	1.7264	98.2736	0.8427
32.5	11,300,520	62,931	0.5569	99.4431	0.8281
33.5	11,245,545	124,375	1.1060	98.8940	0.8235
34.5	10,261,184	163,659	1.5949	98.4051	0.8144
35.5	9,978,080	69,408	0.6956	99.3044	0.8014
36.5	9,730,315	126,253	1.2975	98.7025	0.7958
37.5	8,914,669	86,076	0.9656	99.0344	0.7855
38.5	7,938,269	149,082	1.8780	98.1220	0.7779

39.5	7,496,454	183,826	2.4522	97.5478	0.7633
40.5	6,804,572	150,360	2.2097	97.7903	0.7446
41.5	5,869,931	169,881	2.8941	97.1059	0.7281
42.5	5,315,950	109,326	2.0566	97.9434	0.7071
43.5	5,145,720	68,691	1.3349	98.6651	0.6925
44.5	4,794,953	71,118	1.4832	98.5168	0.6833
45.5	4,583,849	86,096	1.8782	98.1218	0.6732
46.5	4,193,732	42,744	1.0192	98.9808	0.6605
47.5	3,802,715	72,256	1.9001	98.0999	0.6538
48.5	3,658,995	34,773	0.9503	99.0497	0.6414
49.5	3,503,262	143,723	4.1025	95.8975	0.6353
50.5	3,326,986	103,374	3.1071	96.8929	0.6092
51.5	3,247,365	46,891	1.4440	98.5560	0.5903
52.5	3,140,914	51,776	1.6484	98.3516	0.5817
53.5	3,047,968	59,586	1.9549	98.0451	0.5722
54.5	2,811,977	35,111	1.2486	98.7514	0.5610
55.5	2,649,719	55,512	2.0950	97.9050	0.5540
56.5	2,305,959	15,044	0.6524	99.3476	0.5424
57.5	2,072,118	16,199	0.7818	99.2182	0.5388
58.5	1,861,201	26,090	1.4018	98.5982	0.5346
59.5	1,418,768	682	0.0481	99.9519	0.5271
60.5	1,274,629	20,179	1.5831	98.4169	0.5269
61.5	1,054,734	7,396	0.7012	99.2988	0.5185
62.5	1,027,751	5,343	0.5199	99.4801	0.5149
63.5	796,364	1,016	0.1276	99.8724	0.5122
64.5	782,136	7,171	0.9168	99.0832	0.5116
65.5	572,772	9,917	1.7314	98.2686	0.5069
66.5	528,500	1,396	0.2641	99.7359	0.4981
67.5	500,924	1,130	0.2256	99.7744	0.4968
68.5	485,285	0	0.0000	100.0000	0.4957
69.5	480,126	0	0.0000	100.0000	0.4957
70.5	476,490	13,565	2.8469	97.1531	0.4957
71.5	462,233	0	0.0000	100.0000	0.4815
72.5	376,456	0	0.0000	100.0000	0.4815
73.5	356,376	0	0.0000	100.0000	0.4815
74.5	346,923	0	0.0000	100.0000	0.4815
75.5	65,033	0	0.0000	100.0000	0.4815
76.5	63,247	0	0.0000	100.0000	0.4815
77.5	29,713	0	0.0000	100.0000	0.4815
78.5	27,889	0	0.0000	100.0000	0.4815
79.5	27,889	0	0.0000	100.0000	0.4815
80.5	25,893	0	0.0000	100.0000	0.4815
81.5	25,893	0	0.0000	100.0000	0.4815
82.5	25,893	0	0.0000	100.0000	0.4815
83.5	25,893	0	0.0000	100.0000	0.4815
84.5	25,543	0	0.0000	100.0000	0.4815
85.5	25,543	0	0.0000	100.0000	0.4815

86.5	18,395	0	0.0000	100.0000	0.4815
87.5	17,824	0	0.0000	100.0000	0.4815
88.5	12,874	0	0.0000	100.0000	0.4815
89.5	12,874	0	0.0000	100.0000	0.4815
90.5	8,023	0	0.0000	100.0000	0.4815
91.5	8,023	2,766	34.4759	65.5241	0.4815
92.5	5,257	0	0.0000	100.0000	0.3155
93.5	5,257	2,766	52.6156	47.3844	0.3155
94.5	2,491	2,491	100.0000	0.0000	0.1495
95.5	0	0	0.0000	100.0000	0.0000
96.5	0	0	0.0000	100.0000	0.0000
97.5	0	0	0.0000	100.0000	0.0000
98.5	0	0	0.0000	100.0000	0.0000
99.5	0	0	0.0000	100.0000	0.0000
100.5	0	0	0.0000	100.0000	0.0000
101.5	0	0	0.0000	100.0000	0.0000

Best Fit Curve Results

Empire District Elec

Account: 362.00 -

Curve	Life	Sum of Squared Differences
BAND	1912 - 2014	
R1	60.0	619.570
S0	60.0	853.217
R1.5	60.0	968.370
S0.5	60.0	999.030
R0.5	60.0	1,315.461
S-0.5	60.0	1,484.588
S1	60.0	1,742.774
R2	60.0	2,063.742
L1	60.0	2,262.883
L1.5	60.0	2,263.162
S1.5	60.0	3,002.421
O1	60.0	3,094.616
L2	60.0	3,106.495
L0.5	60.0	3,185.284
R2.5	60.0	3,947.071
S2	60.0	4,809.226
L0	60.0	4,830.252
R3	60.0	6,504.358
L3	60.0	6,704.673
O2	60.0	7,256.309
S3	60.0	9,533.392
R4	60.0	12,891.302
L4	60.0	13,283.418
S4	60.0	17,573.629
L5	60.0	21,786.409
R5	60.0	23,942.624
O3	60.0	24,011.320
S5	60.0	27,648.764
S6	60.0	38,865.912
O4	60.0	46,558.504
SQ	60.0	61,872.598

Analytical Parameters

OLT Placement Band: 1912 - 2013

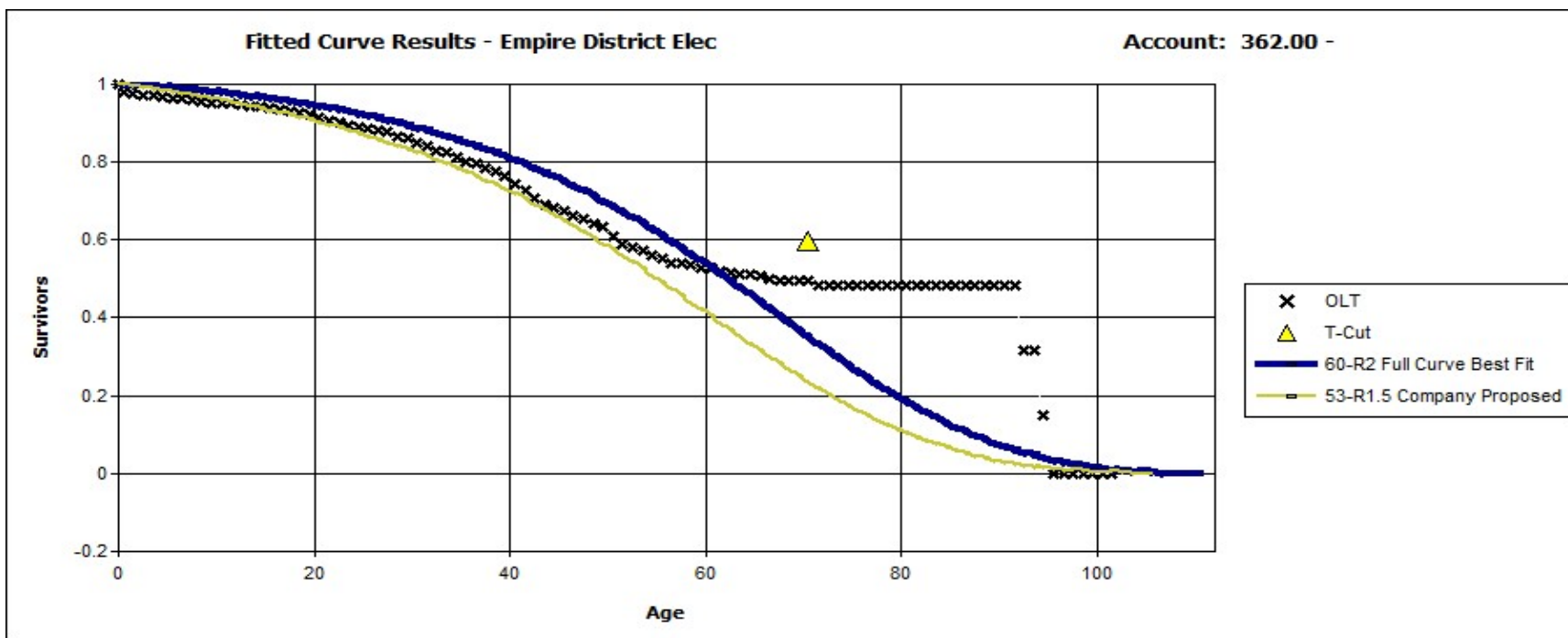
OLT Experience Band: 1912 - 2014

Minimum Life Parameter 4

Maximum Life Paramete 60

Life Increment Paramete 1

Max Age (T-Cut): 70.5



Analytical Parameters

OLT Placement Band:	1912 - 2014
OLT Experience Band:	1912 - 2014
Minimum Life Parameter:	4
Maximum Life Parameter:	60
Life Increment Parameter:	1
Max Age (T-Cut):	72.0

Empire District Elec

362.0 Gen Arm -

**Calculation of Remaining Life
Empire District Elec**

362.0 Gen Arm -

**Calculation of Remaining Life
Based Upon Broad Group/Vintage Group Procedures
Related to Original Cost as of December 31, 2014**

Survivor Curve .. IOWA:		60	R2			
<u>Year</u> (1)	<u>Age</u> (2)	<u>Surviving Investment</u> (3)	<u>BG/VG Average</u>		<u>ASL Weights</u> (6)=(3)/(4)	<u>RL Weights</u> (7)=(6)*(5)
			<u>Service Life</u> (4)	<u>Remaining Life</u> (5)		
2014	0.5	0	60.00	59.55	0	0
2013	1.5	18	60.00	58.64	0	18
2012	2.5	0	60.00	57.74	0	0
2011	3.5	1,166	60.00	56.85	19	1,105
2010	4.5	0	60.00	55.96	0	0
2009	5.5	1,260,562	60.00	55.08	21,009	1,157,094
2008	6.5	6,724,491	60.00	54.19	112,075	6,073,842
2007	7.5	3,154,039	60.00	53.32	52,567	2,802,824
2006	8.5	888,593	60.00	52.45	14,810	776,742
2005	9.5	2,715,990	60.00	51.58	45,267	2,334,908
2004	10.5	1,702,493	60.00	50.72	28,375	1,439,183
2003	11.5	2,297,969	60.00	49.86	38,299	1,909,771
2002	12.5	4,925,145	60.00	49.01	82,086	4,023,292
2001	13.5	2,854,724	60.00	48.17	47,579	2,291,767
2000	14.5	595,729	60.00	47.33	9,929	469,907
1999	15.5	1,424,498	60.00	46.49	23,742	1,103,818
1998	16.5	1,421,521	60.00	45.66	23,692	1,081,874
1997	17.5	2,398,447	60.00	44.84	39,974	1,792,462
1996	18.5	3,631,753	60.00	44.02	60,529	2,664,678
1995	19.5	1,730,528	60.00	43.21	28,842	1,246,312
1994	20.5	3,096,104	60.00	42.41	51,602	2,188,208
1993	21.5	3,827,548	60.00	41.61	63,792	2,654,158
1992	22.5	3,920,603	60.00	40.81	65,343	2,666,854
1991	23.5	2,159,136	60.00	40.03	35,986	1,440,347

1990	24.5	3,654,549	60.00	39.24	60,909	2,390,377
1989	25.5	3,114,761	60.00	38.47	51,913	1,997,130
1988	26.5	1,761,386	60.00	37.70	29,356	1,106,830
1987	27.5	965,616	60.00	36.94	16,094	594,534
1986	28.5	1,235,941	60.00	36.19	20,599	745,446
1985	29.5	451,374	60.00	35.44	7,523	266,619
1984	30.5	890,775	60.00	34.70	14,846	515,179
1983	31.5	1,091,878	60.00	33.97	18,198	618,153
1982	32.5	154,385	60.00	33.24	2,573	85,535
1981	33.5	101,744	60.00	32.52	1,696	55,152
1980	34.5	605,308	60.00	31.81	10,088	320,949
1979	35.5	187,684	60.00	31.11	3,128	97,314
1978	36.5	213,414	60.00	30.41	3,557	108,182
1977	37.5	698,352	60.00	29.73	11,639	346,003
1976	38.5	623,890	60.00	29.05	10,398	302,043
1975	39.5	315,583	60.00	28.38	5,260	149,251
1974	40.5	535,556	60.00	27.71	8,926	247,368
1973	41.5	614,824	60.00	27.06	10,247	277,269
1972	42.5	364,231	60.00	26.41	6,071	160,336
1971	43.5	215,846	60.00	25.77	3,597	92,723
1970	44.5	354,179	60.00	25.15	5,903	148,435
1969	45.5	131,846	60.00	24.53	2,197	53,894
1968	46.5	273,674	60.00	23.92	4,561	109,083
1967	47.5	362,666	60.00	23.31	6,044	140,915
1966	48.5	100,738	60.00	22.72	1,679	38,147
1965	49.5	201,842	60.00	22.14	3,364	74,472
1964	50.5	54,631	60.00	21.56	911	19,634
1963	51.5	25,457	60.00	21.00	424	8,910
1962	52.5	38,528	60.00	20.45	642	13,129
1961	53.5	83,533	60.00	19.90	1,392	27,705
1960	54.5	130,197	60.00	19.37	2,170	42,021
1959	55.5	138,705	60.00	18.84	2,312	43,554
1958	56.5	220,620	60.00	18.32	3,677	67,380
1957	57.5	217,794	60.00	17.82	3,630	64,682
1956	58.5	130,655	60.00	17.32	2,178	37,725
1955	59.5	366,934	60.00	16.84	6,116	102,976
1954	60.5	66,728	60.00	16.36	1,112	18,198
1953	61.5	128,655	60.00	15.90	2,144	34,088
1952	62.5	19,509	60.00	15.44	325	5,021
1951	63.5	207,485	60.00	15.00	3,458	51,856
1950	64.5	27,359	60.00	14.56	456	6,639
1949	65.5	113,988	60.00	14.13	1,900	26,850
1948	66.5	40,784	60.00	13.72	680	9,323
1947	67.5	26,181	60.00	13.31	436	5,807
1946	68.5	14,510	60.00	12.91	242	3,122
1945	69.5	5,159	60.00	12.52	86	1,077
1944	70.5	3,635	60.00	12.14	61	735

1943	71.5	693	60.00	11.77	12	136
1942	72.5	51,575	60.00	11.40	860	9,801
1941	73.5	19,970	60.00	11.05	333	3,676
1940	74.5	8,551	60.00	10.70	143	1,524
1939	75.5	2,489	60.00	10.35	41	430
1938	76.5	0	60.00	10.02	0	0
1937	77.5	33,534	60.00	9.69	559	5,416
1936	78.5	1,630	60.00	9.37	27	254
1935	79.5	0	60.00	9.05	0	0
1934	80.5	1,996	60.00	8.74	33	291
1933	81.5	0	60.00	8.43	0	0
1932	82.5	0	60.00	8.12	0	0
1931	83.5	0	60.00	7.82	0	0
1930	84.5	350	60.00	7.52	6	44
1929	85.5	0	60.00	7.23	0	0
1928	86.5	7,148	60.00	6.93	119	826
1927	87.5	571	60.00	6.64	10	63
1926	88.5	4,950	60.00	6.35	83	524
1925	89.5	0	60.00	6.06	0	0
1924	90.5	4,851	60.00	5.77	81	466
1923	91.5	0	60.00	5.48	0	0
1922	92.5	0	60.00	5.19	0	0
1921	93.5	0	60.00	4.90	0	0
1920	94.5	0	60.00	4.61	0	0
1919	95.5	0	60.00	4.32	0	0
1918	96.5	0	60.00	4.04	0	0
1917	97.5	0	60.00	3.75	0	0
1916	98.5	0	60.00	3.47	0	0
1915	99.5	0	60.00	3.19	0	0
1914	100.5	0	60.00	2.91	0	0
1913	101.5	0	60.00	2.63	0	0
1912	102.5	0	60.00	2.36	0	0

72,152,454

1,202,541 51,774,386

AVERAGE SERVICE LIFE	60.00
AVERAGE REMAINING LIFE	43.05

Observed Life Table Results**Empire District Elec****Account: 364.00 -**

Age	Exposures	Retirements	Retirement Ratio (%)	Survivor Ratio (%)	Cumulative Survivors
BAND		1900 - 2014			
0	144,607,225	54,640	0.0378	99.9622	1.0000
0.5	141,380,957	3,224	0.0023	99.9977	0.9996
1.5	142,800,577	803,770	0.5629	99.4371	0.9996
2.5	141,807,245	153,505	0.1082	99.8918	0.9940
3.5	141,694,310	22,429	0.0158	99.9842	0.9929
4.5	141,679,444	2,797	0.0020	99.9980	0.9927
5.5	134,419,927	26,884	0.0200	99.9800	0.9927
6.5	126,073,221	7,187	0.0057	99.9943	0.9925
7.5	110,769,095	5,130	0.0046	99.9954	0.9925
8.5	105,131,636	2,305	0.0022	99.9978	0.9924
9.5	100,398,563	1,117	0.0011	99.9989	0.9924
10.5	96,113,892	3,011	0.0031	99.9969	0.9924
11.5	92,770,279	5,103	0.0055	99.9945	0.9924
12.5	89,718,608	4,330	0.0048	99.9952	0.9923
13.5	85,865,238	7,999	0.0093	99.9907	0.9923
14.5	82,237,131	13,427	0.0163	99.9837	0.9922
15.5	78,112,495	2,932	0.0038	99.9962	0.9920
16.5	74,656,245	4,654	0.0062	99.9938	0.9920
17.5	70,622,021	8,393	0.0119	99.9881	0.9919
18.5	65,746,655	6,545	0.0100	99.9900	0.9918
19.5	61,038,292	11,982	0.0196	99.9804	0.9917
20.5	56,006,597	18,177	0.0325	99.9675	0.9915
21.5	51,631,058	20,875	0.0404	99.9596	0.9912
22.5	47,942,351	45,748	0.0954	99.9046	0.9908
23.5	44,459,696	133,527	0.3003	99.6997	0.9898
24.5	40,890,784	264,464	0.6468	99.3532	0.9868
25.5	37,557,525	357,839	0.9528	99.0472	0.9805
26.5	33,783,300	275,032	0.8141	99.1859	0.9711
27.5	31,273,538	202,017	0.6460	99.3540	0.9632
28.5	28,519,775	202,270	0.7092	99.2908	0.9570
29.5	26,208,812	163,424	0.6235	99.3765	0.9502
30.5	24,202,734	155,762	0.6436	99.3564	0.9443
31.5	22,465,374	156,571	0.6969	99.3031	0.9382
32.5	20,861,685	98,883	0.4740	99.5260	0.9317
33.5	19,341,765	111,644	0.5772	99.4228	0.9273
34.5	17,955,079	213,035	1.1865	98.8135	0.9219
35.5	16,519,875	222,190	1.3450	98.6550	0.9110
36.5	15,181,293	306,317	2.0177	97.9823	0.8987
37.5	13,989,168	362,827	2.5936	97.4064	0.8806
38.5	12,882,073	315,914	2.4524	97.5476	0.8577

39.5	11,836,430	496,040	4.1908	95.8092	0.8367
40.5	10,588,371	564,397	5.3303	94.6697	0.8016
41.5	9,156,506	427,510	4.6689	95.3311	0.7589
42.5	7,999,130	409,267	5.1164	94.8836	0.7235
43.5	6,966,284	289,888	4.1613	95.8387	0.6865
44.5	6,113,845	159,614	2.6107	97.3893	0.6579
45.5	5,467,086	120,118	2.1971	97.8029	0.6407
46.5	4,941,880	272,237	5.5088	94.4912	0.6266
47.5	4,295,886	330,652	7.6969	92.3031	0.5921
48.5	3,630,283	159,847	4.4032	95.5968	0.5465
49.5	3,123,797	105,353	3.3726	96.6274	0.5225
50.5	2,683,813	99,280	3.6992	96.3008	0.5049
51.5	2,342,120	78,709	3.3606	96.6394	0.4862
52.5	1,950,139	72,411	3.7131	96.2869	0.4698
53.5	1,633,440	81,007	4.9593	95.0407	0.4524
54.5	1,370,810	67,769	4.9437	95.0563	0.4300
55.5	1,150,510	28,888	2.5109	97.4891	0.4087
56.5	911,955	48,312	5.2976	94.7024	0.3984
57.5	704,627	15,575	2.2104	97.7896	0.3773
58.5	522,464	11,973	2.2916	97.7084	0.3690
59.5	370,293	7,860	2.1226	97.8774	0.3605
60.5	258,879	9,055	3.4978	96.5022	0.3529
61.5	173,420	3,166	1.8256	98.1744	0.3405
62.5	117,749	1,538	1.3062	98.6938	0.3343
63.5	92,217	822	0.8914	99.1086	0.3300
64.5	72,885	511	0.7011	99.2989	0.3270
65.5	58,023	2,127	3.6658	96.3342	0.3247
66.5	48,937	523	1.0687	98.9313	0.3128
67.5	43,598	56	0.1284	99.8716	0.3095
68.5	40,384	0	0.0000	100.0000	0.3091
69.5	37,171	1,467	3.9466	96.0534	0.3091
70.5	32,726	0	0.0000	100.0000	0.2969
71.5	30,883	11	0.0356	99.9644	0.2969
72.5	27,373	0	0.0000	100.0000	0.2968
73.5	24,646	0	0.0000	100.0000	0.2968
74.5	21,359	0	0.0000	100.0000	0.2968
75.5	17,813	0	0.0000	100.0000	0.2968
76.5	13,922	0	0.0000	100.0000	0.2968
77.5	8,911	666	7.4739	92.5261	0.2968
78.5	3,029	0	0.0000	100.0000	0.2746
79.5	3,029	0	0.0000	100.0000	0.2746
80.5	3,029	0	0.0000	100.0000	0.2746
81.5	3,029	0	0.0000	100.0000	0.2746
82.5	3,029	0	0.0000	100.0000	0.2746
83.5	3,029	0	0.0000	100.0000	0.2746
84.5	3,029	0	0.0000	100.0000	0.2746
85.5	3,029	0	0.0000	100.0000	0.2746

86.5	3,029	0	0.0000	100.0000	0.2746
87.5	3,029	0	0.0000	100.0000	0.2746
88.5	3,029	0	0.0000	100.0000	0.2746
89.5	3,029	0	0.0000	100.0000	0.2746
90.5	3,029	0	0.0000	100.0000	0.2746
91.5	3,029	0	0.0000	100.0000	0.2746
92.5	3,029	0	0.0000	100.0000	0.2746
93.5	3,029	0	0.0000	100.0000	0.2746
94.5	3,029	0	0.0000	100.0000	0.2746
95.5	3,029	0	0.0000	100.0000	0.2746
96.5	3,029	0	0.0000	100.0000	0.2746
97.5	3,029	0	0.0000	100.0000	0.2746
98.5	3,029	0	0.0000	100.0000	0.2746
99.5	3,029	0	0.0000	100.0000	0.2746
100.5	3,029	0	0.0000	100.0000	0.2746
101.5	1,045	0	0.0000	100.0000	0.2746
102.5	1,045	11	1.0526	98.9474	0.2746
103.5	1,034	0	0.0000	100.0000	0.2717
104.5	1,034	0	0.0000	100.0000	0.2717
105.5	1,034	0	0.0000	100.0000	0.2717
106.5	1,034	0	0.0000	100.0000	0.2717
107.5	1,034	0	0.0000	100.0000	0.2717
108.5	1,034	0	0.0000	100.0000	0.2717
109.5	1,034	0	0.0000	100.0000	0.2717
110.5	1,034	0	0.0000	100.0000	0.2717
111.5	1,034	0	0.0000	100.0000	0.2717
112.5	1,034	0	0.0000	100.0000	0.2717
113.5	1,034	0	0.0000	100.0000	0.2717

Best Fit Curve Results

Empire District Elec

Account: 364.00 -

Curve	Life	Sum of Squared Differences
BAND	1900 - 2014	
L2	58.0	1,796.758
L3	56.0	2,055.109
S1.5	56.0	2,792.214
S1	56.0	3,031.884
L1.5	59.0	3,172.612
S2	56.0	3,273.819
S0.5	56.0	4,095.718
R2	55.0	4,333.502
R1.5	54.0	4,890.381
R2.5	55.0	5,006.818
L1	60.0	5,352.232
S0	56.0	5,876.220
S3	55.0	6,482.627
R1	54.0	6,488.454
R3	55.0	6,798.163
L0.5	61.0	7,554.013
L4	55.0	7,629.423
S-0.5	57.0	8,960.704
R0.5	55.0	9,315.607
L0	63.0	10,261.866
R4	55.0	12,591.744
O1	58.0	13,048.961
O2	65.0	13,122.214
S4	54.0	13,885.202
L5	54.0	15,680.005
R5	53.0	20,800.106
O3	70.0	21,150.222
S5	53.0	22,503.164
S6	52.0	30,729.291
O4	70.0	39,200.947
SQ	51.0	49,390.166

Analytical Parameters

OLT Placement Band: 1900 - 2014

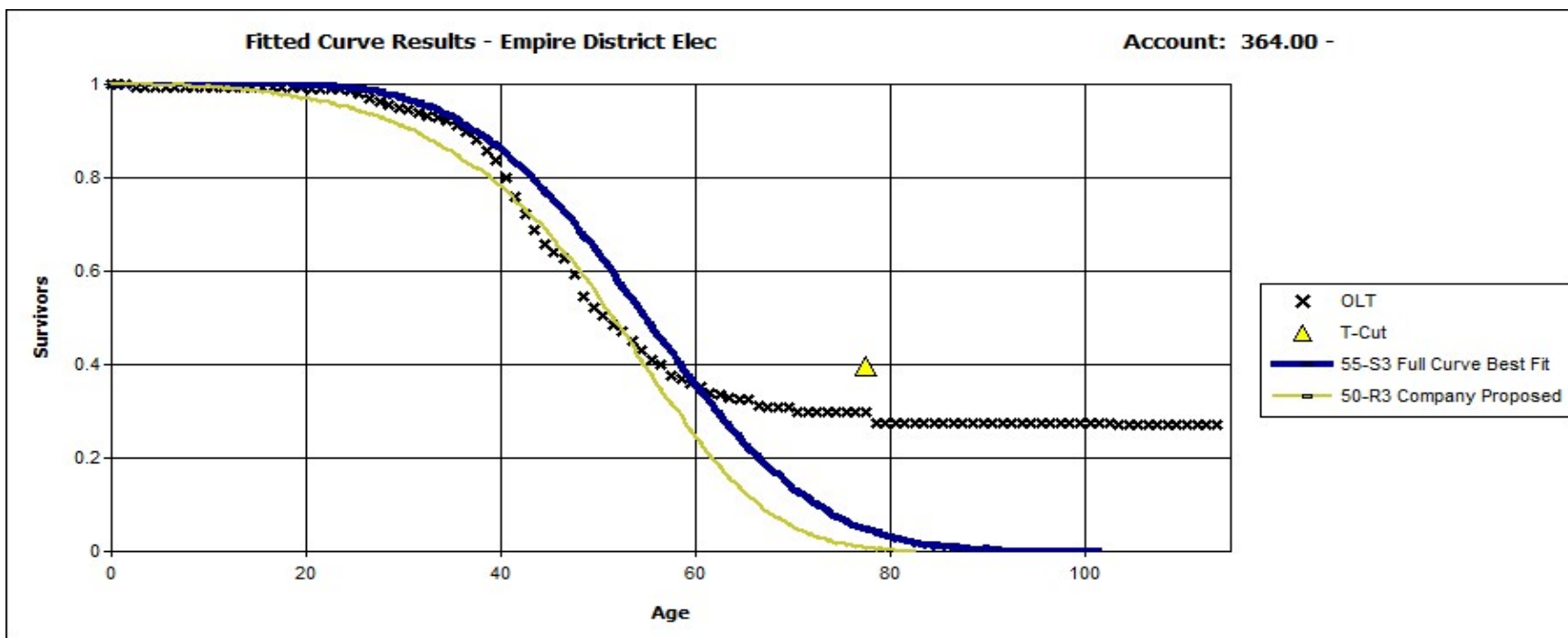
OLT Experience Band: 1900 - 2014

Minimum Life Parameter 3

Maximum Life Paramete 70

Life Increment Paramete 1

Max Age (T-Cut): 77.5



Analytical Parameters

OLT Placement Band: 1900 - 2014
 OLT Experience Band: 1900 - 2014
 Minimum Life Parameter: 3
 Maximum Life Parameter: 70
 Life Increment Parameter: 1
 Max Age (T-Cut): 79.0

Empire District Elec

364.00 Gen Arm -

Calculation of Remaining Life
Based Upon Broad Group/Vintage Group Procedures
Related to Original Cost as of December 31, 2014

Survivor Curve .. IOWA: 55 S3

<u>Year</u>	<u>Age</u>	<u>Surviving Investment</u>	<u>BG/VG Average</u>		<u>ASL Weights</u>	<u>RL Weights</u>
			<u>Service Life</u>	<u>Remaining Life</u>		
(1)	(2)	(3)	(4)	(5)	(6)=(3)/(4)	(7)=(6)*(5)
2014	0.5	3,181,138	55.00	54.50	57,839	3,152,102
2013	1.5	113,821	55.00	53.50	2,069	110,713
2012	2.5	529,641	55.00	52.50	9,630	505,547
2011	3.5	3,040	55.00	51.50	55	2,846
2010	4.5	3,978	55.00	50.50	72	3,652
2009	5.5	7,256,721	55.00	49.50	131,940	6,530,783
2008	6.5	8,321,677	55.00	48.50	151,303	7,337,908
2007	7.5	15,322,384	55.00	47.50	278,589	13,232,443
2006	8.5	5,632,329	55.00	46.50	102,406	4,761,701
2005	9.5	4,730,768	55.00	45.50	86,014	3,913,513
2004	10.5	4,283,554	55.00	44.50	77,883	3,465,724
2003	11.5	3,340,602	55.00	43.50	60,738	2,642,131
2002	12.5	3,043,606	55.00	42.50	55,338	2,351,996
2001	13.5	3,849,040	55.00	41.51	69,983	2,904,628
2000	14.5	3,620,108	55.00	40.51	65,820	2,666,335
1999	15.5	4,111,209	55.00	39.52	74,749	2,953,770
1998	16.5	3,453,318	55.00	38.52	62,788	2,418,867
1997	17.5	4,029,620	55.00	37.54	73,266	2,750,180
1996	18.5	4,866,973	55.00	36.55	88,490	3,234,646
1995	19.5	4,703,070	55.00	35.58	85,510	3,042,061
1994	20.5	5,019,683	55.00	34.60	91,267	3,158,125
1993	21.5	4,357,362	55.00	33.64	79,225	2,664,972
1992	22.5	3,668,145	55.00	32.68	66,694	2,179,656
1991	23.5	2,689,649	55.00	31.74	48,903	1,551,930
1990	24.5	2,924,151	55.00	30.80	53,166	1,637,485
1989	25.5	2,461,851	55.00	29.88	44,761	1,337,251
1988	26.5	2,489,576	55.00	28.96	45,265	1,311,086
1987	27.5	2,194,819	55.00	28.07	39,906	1,120,081
1986	28.5	2,157,412	55.00	27.19	39,226	1,066,468
1985	29.5	2,010,369	55.00	26.32	36,552	962,210

1984	30.5	1,599,280	55.00	25.48	29,078	740,843
1983	31.5	1,581,744	55.00	24.65	28,759	708,899
1982	32.5	1,343,422	55.00	23.84	24,426	582,318
1981	33.5	1,371,552	55.00	23.05	24,937	574,827
1980	34.5	1,253,829	55.00	22.28	22,797	507,964
1979	35.5	1,153,709	55.00	21.53	20,977	451,705
1978	36.5	1,098,134	55.00	20.81	19,966	415,414
1977	37.5	893,104	55.00	20.10	16,238	326,371
1976	38.5	762,794	55.00	19.41	13,869	269,233
1975	39.5	730,693	55.00	18.75	13,285	249,079
1974	40.5	781,426	55.00	18.10	14,208	257,230
1973	41.5	871,613	55.00	17.48	15,848	277,042
1972	42.5	740,424	55.00	16.88	13,462	227,224
1971	43.5	625,423	55.00	16.30	11,371	185,299
1970	44.5	564,086	55.00	15.73	10,256	161,349
1969	45.5	498,190	55.00	15.19	9,058	137,574
1968	46.5	408,344	55.00	14.66	7,424	108,863
1967	47.5	376,922	55.00	14.16	6,853	97,008
1966	48.5	337,492	55.00	13.67	6,136	83,852
1965	49.5	348,220	55.00	13.19	6,331	83,522
1964	50.5	335,546	55.00	12.74	6,101	77,699
1963	51.5	242,884	55.00	12.30	4,416	54,297
1962	52.5	313,694	55.00	11.87	5,704	67,701
1961	53.5	248,533	55.00	11.46	4,519	51,782
1960	54.5	181,679	55.00	11.06	3,303	36,543
1959	55.5	150,141	55.00	10.68	2,730	29,154
1958	56.5	160,828	55.00	10.31	2,924	30,147
1957	57.5	159,016	55.00	9.95	2,891	28,773
1956	58.5	157,842	55.00	9.61	2,870	27,569
1955	59.5	140,205	55.00	9.27	2,549	23,637
1954	60.5	103,553	55.00	8.95	1,883	16,850
1953	61.5	64,383	55.00	8.64	1,171	10,110
1952	62.5	49,768	55.00	8.33	905	7,540
1951	63.5	23,995	55.00	8.04	436	3,507
1950	64.5	13,680	55.00	7.76	249	1,929
1949	65.5	14,351	55.00	7.48	261	1,952
1948	66.5	6,819	55.00	7.21	124	894
1947	67.5	4,816	55.00	6.95	88	609
1946	68.5	3,158	55.00	6.70	57	385
1945	69.5	3,213	55.00	6.46	58	377
1944	70.5	2,979	55.00	6.22	54	337
1943	71.5	1,843	55.00	5.99	34	201
1942	72.5	3,499	55.00	5.76	64	367
1941	73.5	2,727	55.00	5.54	50	275
1940	74.5	3,287	55.00	5.33	60	318
1939	75.5	3,546	55.00	5.12	64	330
1938	76.5	4,557	55.00	4.92	83	407

1937	77.5	5,011	55.00	4.72	91	430
1936	78.5	5,217	55.00	4.53	95	429
1935	79.5	0	55.00	4.34	0	0
1934	80.5	0	55.00	4.15	0	0
1933	81.5	0	55.00	3.97	0	0
1932	82.5	0	55.00	3.80	0	0
1931	83.5	0	55.00	3.62	0	0
1930	84.5	0	55.00	3.45	0	0
1929	85.5	0	55.00	3.28	0	0
1928	86.5	0	55.00	3.12	0	0
1927	87.5	0	55.00	2.96	0	0
1926	88.5	0	55.00	2.80	0	0
1925	89.5	0	55.00	2.64	0	0
1924	90.5	0	55.00	2.48	0	0
1923	91.5	0	55.00	2.32	0	0
1922	92.5	0	55.00	2.17	0	0
1921	93.5	0	55.00	2.03	0	0
1920	94.5	0	55.00	1.87	0	0
1919	95.5	0	55.00	1.70	0	0
1918	96.5	0	55.00	1.53	0	0
1917	97.5	0	55.00	1.36	0	0
1916	98.5	0	55.00	1.18	0	0
1915	99.5	0	55.00	1.02	0	0
1914	100.5	0	55.00	0.85	0	0
1913	101.5	1,984	55.00	0.83	36	30
1912	102.5	0	55.00	0.50	0	0
1911	103.5	0	55.00	0.50	0	0
1910	104.5	0	55.00	0.50	0	0
1909	105.5	0	55.00	0.50	0	0
1908	106.5	0	55.00	0.50	0	0
1907	107.5	0	55.00	0.50	0	0
1906	108.5	0	55.00	0.50	0	0
1905	109.5	0	55.00	0.50	0	0
1904	110.5	0	55.00	0.50	0	0
1903	111.5	0	55.00	0.50	0	0
1902	112.5	0	55.00	0.50	0	0
1901	113.5	0	55.00	0.50	0	0
1900	114.5	1,034	55.00	0.50	19	9

134,123,803

2,438,615 91,891,015

AVERAGE SERVICE LIFE	55.00
AVERAGE REMAINING LIFE	37.68

Observed Life Table Results**Empire District Elec****Account: 365.00 -**

Age	Exposures	Retirements	Retirement Ratio (%)	Survivor Ratio (%)	Cumulative Survivors
BAND		1900 - 2014			
0	152,997,550	83,712	0.0547	99.9453	1.0000
0.5	151,560,955	16,144	0.0107	99.9893	0.9995
1.5	152,846,749	99,666	0.0652	99.9348	0.9993
2.5	152,893,534	35,663	0.0233	99.9767	0.9987
3.5	152,915,058	6,058	0.0040	99.9960	0.9985
4.5	152,911,038	15,142	0.0099	99.9901	0.9984
5.5	150,340,216	40,037	0.0266	99.9734	0.9983
6.5	142,083,619	81,864	0.0576	99.9424	0.9981
7.5	127,234,378	52,219	0.0410	99.9590	0.9975
8.5	121,624,181	79,140	0.0651	99.9349	0.9971
9.5	115,287,514	65,006	0.0564	99.9436	0.9964
10.5	110,439,253	52,824	0.0478	99.9522	0.9959
11.5	103,697,043	108,425	0.1046	99.8954	0.9954
12.5	99,544,751	127,663	0.1282	99.8718	0.9943
13.5	94,010,841	92,381	0.0983	99.9017	0.9931
14.5	88,668,278	196,369	0.2215	99.7785	0.9921
15.5	84,519,407	199,227	0.2357	99.7643	0.9899
16.5	80,306,830	131,834	0.1642	99.8358	0.9876
17.5	73,669,497	106,233	0.1442	99.8558	0.9859
18.5	68,914,893	294,169	0.4269	99.5731	0.9845
19.5	63,012,771	125,945	0.1999	99.8001	0.9803
20.5	56,563,308	105,882	0.1872	99.8128	0.9784
21.5	50,863,340	107,423	0.2112	99.7888	0.9765
22.5	46,355,206	108,997	0.2351	99.7649	0.9745
23.5	43,432,630	118,593	0.2731	99.7269	0.9722
24.5	40,194,025	207,713	0.5168	99.4832	0.9695
25.5	36,766,925	165,625	0.4505	99.5495	0.9645
26.5	33,468,950	201,218	0.6012	99.3988	0.9602
27.5	31,325,746	140,361	0.4481	99.5519	0.9544
28.5	28,613,201	254,946	0.8910	99.1090	0.9501
29.5	26,436,825	209,296	0.7917	99.2083	0.9416
30.5	24,526,766	247,709	1.0100	98.9900	0.9342
31.5	22,835,588	225,739	0.9885	99.0115	0.9248
32.5	21,238,762	159,437	0.7507	99.2493	0.9156
33.5	19,488,095	153,410	0.7872	99.2128	0.9087
34.5	17,749,457	179,919	1.0137	98.9863	0.9016
35.5	16,339,544	193,658	1.1852	98.8148	0.8925
36.5	14,962,494	185,220	1.2379	98.7621	0.8819
37.5	13,783,230	194,965	1.4145	98.5855	0.8710
38.5	12,752,861	176,501	1.3840	98.6160	0.8586

39.5	11,771,641	210,098	1.7848	98.2152	0.8468
40.5	10,838,357	198,482	1.8313	98.1687	0.8316
41.5	9,704,405	174,434	1.7975	98.2025	0.8164
42.5	8,727,201	138,286	1.5845	98.4155	0.8017
43.5	7,895,086	152,976	1.9376	98.0624	0.7890
44.5	7,189,490	83,410	1.1602	98.8398	0.7737
45.5	6,593,955	63,356	0.9608	99.0392	0.7648
46.5	6,133,214	109,758	1.7896	98.2104	0.7574
47.5	5,629,355	76,998	1.3678	98.6322	0.7439
48.5	5,238,536	65,247	1.2455	98.7545	0.7337
49.5	4,909,356	79,595	1.6213	98.3787	0.7246
50.5	4,609,206	81,022	1.7578	98.2422	0.7128
51.5	4,366,265	154,664	3.5422	96.4578	0.7003
52.5	4,011,674	105,638	2.6333	97.3667	0.6755
53.5	3,738,518	82,018	2.1939	97.8061	0.6577
54.5	3,473,185	65,812	1.8949	98.1051	0.6433
55.5	3,236,446	49,758	1.5374	98.4626	0.6311
56.5	2,991,107	40,656	1.3592	98.6408	0.6214
57.5	2,764,315	51,358	1.8579	98.1421	0.6129
58.5	2,508,651	23,516	0.9374	99.0626	0.6015
59.5	2,305,930	23,205	1.0063	98.9937	0.5959
60.5	2,120,446	18,015	0.8496	99.1504	0.5899
61.5	1,894,232	5,753	0.3037	99.6963	0.5849
62.5	1,699,399	8,181	0.4814	99.5186	0.5831
63.5	1,535,212	10,357	0.6746	99.3254	0.5803
64.5	1,355,558	3,279	0.2419	99.7581	0.5764
65.5	1,126,840	1,042	0.0925	99.9075	0.5750
66.5	850,985	4,357	0.5120	99.4880	0.5745
67.5	595,385	2,475	0.4157	99.5843	0.5715
68.5	487,209	2,167	0.4448	99.5552	0.5691
69.5	440,621	1,211	0.2748	99.7252	0.5666
70.5	407,146	1,231	0.3023	99.6977	0.5651
71.5	394,510	345	0.0875	99.9125	0.5633
72.5	368,631	12	0.0033	99.9967	0.5629
73.5	329,525	0	0.0000	100.0000	0.5628
74.5	296,752	40	0.0135	99.9865	0.5628
75.5	263,748	70	0.0265	99.9735	0.5628
76.5	242,614	0	0.0000	100.0000	0.5626
77.5	190,930	712	0.3729	99.6271	0.5626
78.5	188,743	197	0.1044	99.8956	0.5605
79.5	188,546	0	0.0000	100.0000	0.5599
80.5	188,546	848	0.4498	99.5502	0.5599
81.5	187,698	0	0.0000	100.0000	0.5574
82.5	187,698	0	0.0000	100.0000	0.5574
83.5	187,698	0	0.0000	100.0000	0.5574
84.5	187,366	0	0.0000	100.0000	0.5574
85.5	186,125	0	0.0000	100.0000	0.5574

86.5	175,659	0	0.0000	100.0000	0.5574
87.5	175,035	0	0.0000	100.0000	0.5574
88.5	175,035	0	0.0000	100.0000	0.5574
89.5	175,035	0	0.0000	100.0000	0.5574
90.5	175,035	0	0.0000	100.0000	0.5574
91.5	175,035	0	0.0000	100.0000	0.5574
92.5	175,035	0	0.0000	100.0000	0.5574
93.5	175,035	0	0.0000	100.0000	0.5574
94.5	178,905	3,870	2.1632	97.8368	0.5574
95.5	175,035	0	0.0000	100.0000	0.5454
96.5	175,035	0	0.0000	100.0000	0.5454
97.5	175,035	0	0.0000	100.0000	0.5454
98.5	175,035	1,699	0.9707	99.0293	0.5454
99.5	173,336	1,326	0.7650	99.2350	0.5401
100.5	172,010	840	0.4883	99.5117	0.5359
101.5	171,170	2,452	1.4325	98.5675	0.5333
102.5	168,718	2,209	1.3093	98.6907	0.5257
103.5	166,509	3,900	2.3422	97.6578	0.5188
104.5	162,609	694	0.4268	99.5732	0.5066
105.5	161,915	251	0.1550	99.8450	0.5045
106.5	161,664	332	0.2054	99.7946	0.5037
107.5	161,332	605	0.3750	99.6250	0.5027
108.5	160,727	761	0.4735	99.5265	0.5008
109.5	159,966	0	0.0000	100.0000	0.4984
110.5	159,966	0	0.0000	100.0000	0.4984
111.5	159,966	0	0.0000	100.0000	0.4984
112.5	159,966	0	0.0000	100.0000	0.4984
113.5	159,966	179	0.1119	99.8881	0.4984

Best Fit Curve Results

Empire District Elec

Account: 365.00 -

Curve	Life	Sum of Squared Differences
BAND	1900 - 2014	
L2	69.0	34.893
S1.5	64.0	41.793
S1	67.0	102.870
L1.5	73.0	151.275
R2.5	61.0	158.101
S2	62.0	192.825
R3	59.0	287.468
R2	63.0	321.732
S0.5	70.0	408.774
L1	80.0	449.372
L3	64.0	664.621
S0	76.0	840.105
R1.5	67.0	856.526
L0.5	87.0	999.573
S3	60.0	1,122.707
R4	58.0	1,453.518
R1	73.0	1,512.786
L0	98.0	1,588.533
S-0.5	85.0	1,733.145
L4	60.0	2,176.143
R0.5	85.0	2,206.477
O1	100.0	2,637.132
O2	100.0	2,993.392
S4	58.0	3,373.904
R5	58.0	4,758.215
L5	59.0	4,777.052
S5	58.0	6,534.468
O3	100.0	9,271.068
S6	58.0	10,265.002
SQ	61.0	21,015.514
O4	100.0	23,136.392

Analytical Parameters

OLT Placement Band: 1900 - 2014

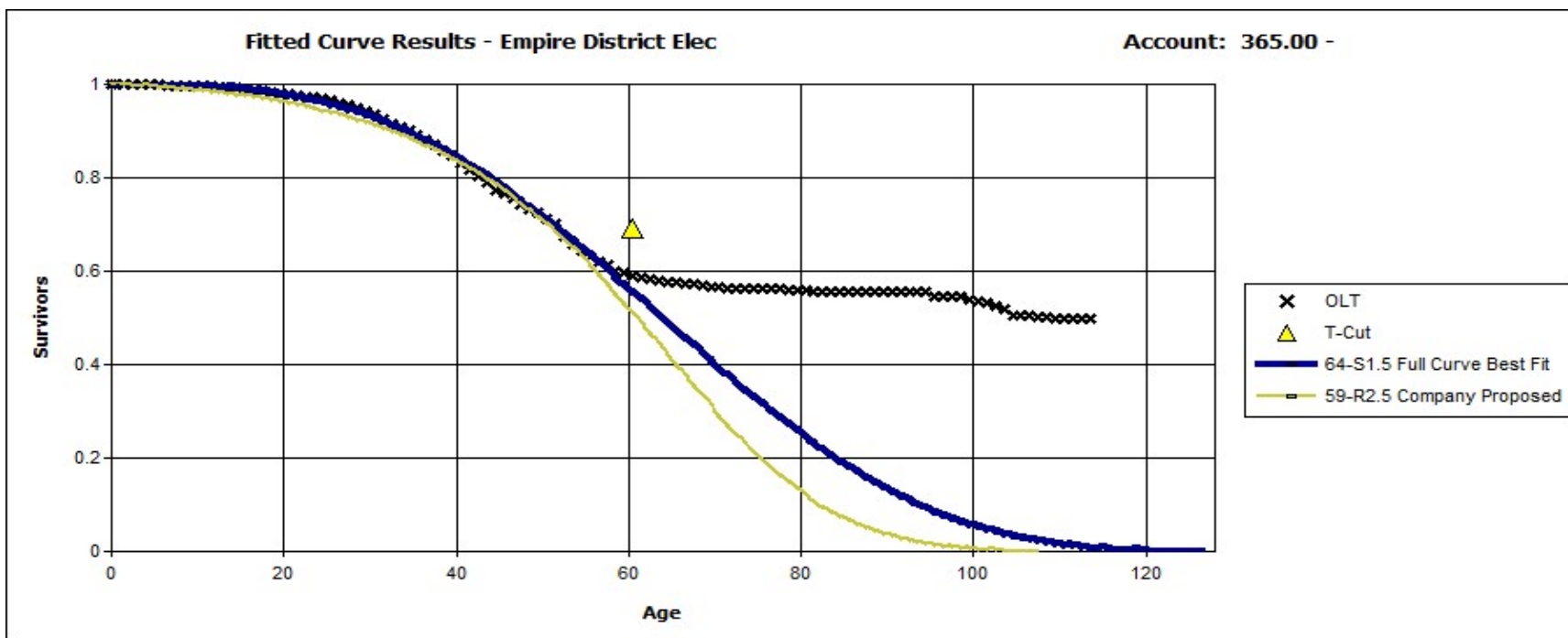
OLT Experience Band: 1900 - 2014

Minimum Life Parameter 4

Maximum Life Parameter 100

Life Increment Parameter 1

Max Age (T-Cut): 60.5



Analytical Parameters

OLT Placement Band:	1900 - 2014
OLT Experience Band:	1900 - 2014
Minimum Life Parameter:	4
Maximum Life Parameter:	100
Life Increment Parameter:	1
Max Age (T-Cut):	62.0

Empire District Elec

365.00 Gen Arm -

Calculation of Remaining Life
Based Upon Broad Group/Vintage Group Procedures
Related to Original Cost as of December 31, 2014

Survivor Curve .. IOWA: 64 S1.5

<u>Year</u>	<u>Age</u>	<u>Surviving Investment</u>	<u>BG/VG Average</u>		<u>ASL Weights</u>	<u>RL Weights</u>
			<u>Service Life</u>	<u>Remaining Life</u>		
(1)	(2)	(3)	(4)	(5)	(6)=(3)/(4)	(7)=(6)*(5)
2014	0.5	1,563,616	64.00	63.50	24,432	1,551,332
2013	1.5	162,116	64.00	62.50	2,533	158,312
2012	2.5	370,998	64.00	61.50	5,797	356,511
2011	3.5	14,494	64.00	60.51	226	13,703
2010	4.5	3,263	64.00	59.52	51	3,034
2009	5.5	2,556,022	64.00	58.53	39,938	2,337,540
2008	6.5	8,229,158	64.00	57.55	128,581	7,399,555
2007	7.5	14,767,377	64.00	56.57	230,740	13,053,535
2006	8.5	5,557,978	64.00	55.60	86,843	4,828,755
2005	9.5	6,257,527	64.00	54.64	97,774	5,342,391
2004	10.5	4,783,612	64.00	53.69	74,744	4,012,643
2003	11.5	6,689,387	64.00	52.74	104,522	5,512,196
2002	12.5	4,042,667	64.00	51.80	63,167	3,271,947
2001	13.5	5,415,750	64.00	50.87	84,621	4,304,500
2000	14.5	5,240,858	64.00	49.95	81,888	4,090,086
1999	15.5	3,952,502	64.00	49.04	61,758	3,028,318
1998	16.5	4,013,407	64.00	48.13	62,709	3,018,442
1997	17.5	6,505,498	64.00	47.24	101,648	4,802,141
1996	18.5	4,648,370	64.00	46.36	72,631	3,367,284
1995	19.5	5,575,497	64.00	45.49	87,117	3,963,173
1994	20.5	6,323,488	64.00	44.63	98,805	4,409,984
1993	21.5	5,592,174	64.00	43.79	87,378	3,826,011
1992	22.5	4,400,711	64.00	42.95	68,761	2,953,389
1991	23.5	2,813,580	64.00	42.13	43,962	1,852,049
1990	24.5	3,119,902	64.00	41.32	48,748	2,014,134
1989	25.5	3,196,202	64.00	40.52	49,941	2,023,465
1988	26.5	3,132,497	64.00	39.73	48,945	1,944,634
1987	27.5	1,923,006	64.00	38.96	30,047	1,170,495
1986	28.5	2,539,664	64.00	38.19	39,682	1,515,624
1985	29.5	1,921,430	64.00	37.44	30,022	1,124,149

1984	30.5	1,700,892	64.00	36.71	26,576	975,537
1983	31.5	1,445,383	64.00	35.98	22,584	812,617
1982	32.5	1,264,967	64.00	35.27	19,765	697,102
1981	33.5	1,370,175	64.00	34.57	21,409	740,095
1980	34.5	1,471,336	64.00	33.88	22,990	778,913
1979	35.5	1,204,261	64.00	33.21	18,817	624,822
1978	36.5	1,183,684	64.00	32.54	18,495	601,860
1977	37.5	1,024,020	64.00	31.89	16,000	510,262
1976	38.5	856,079	64.00	31.25	13,376	418,016
1975	39.5	806,711	64.00	30.62	12,605	385,997
1974	40.5	727,495	64.00	30.01	11,367	341,086
1973	41.5	935,624	64.00	29.40	14,619	429,819
1972	42.5	803,759	64.00	28.81	12,559	361,786
1971	43.5	695,061	64.00	28.22	10,860	306,524
1970	44.5	553,841	64.00	27.65	8,654	239,301
1969	45.5	518,028	64.00	27.09	8,094	219,281
1968	46.5	411,351	64.00	26.54	6,427	170,586
1967	47.5	404,580	64.00	26.00	6,322	164,361
1966	48.5	350,474	64.00	25.47	5,476	139,476
1965	49.5	266,730	64.00	24.95	4,168	103,980
1964	50.5	225,027	64.00	24.44	3,516	85,925
1963	51.5	164,367	64.00	23.94	2,568	61,476
1962	52.5	200,993	64.00	23.44	3,141	73,627
1961	53.5	175,918	64.00	22.96	2,749	63,115
1960	54.5	187,449	64.00	22.49	2,929	65,862
1959	55.5	170,928	64.00	22.02	2,671	58,814
1958	56.5	193,486	64.00	21.56	3,023	65,194
1957	57.5	213,581	64.00	21.12	3,337	70,466
1956	58.5	214,501	64.00	20.67	3,352	69,292
1955	59.5	179,771	64.00	20.24	2,809	56,856
1954	60.5	162,281	64.00	19.82	2,536	50,246
1953	61.5	208,198	64.00	19.40	3,253	63,102
1952	62.5	196,261	64.00	18.99	3,067	58,225
1951	63.5	156,005	64.00	18.58	2,438	45,297
1950	64.5	175,772	64.00	18.19	2,746	49,947
1949	65.5	224,502	64.00	17.80	3,508	62,424
1948	66.5	274,884	64.00	17.41	4,295	74,785
1947	67.5	251,241	64.00	17.03	3,926	66,870
1946	68.5	105,700	64.00	16.66	1,652	27,520
1945	69.5	42,293	64.00	16.30	661	10,770
1944	70.5	32,167	64.00	15.94	503	8,010
1943	71.5	11,304	64.00	15.58	177	2,752
1942	72.5	25,535	64.00	15.23	399	6,078
1941	73.5	39,091	64.00	14.89	611	9,096
1940	74.5	32,772	64.00	14.55	512	7,452
1939	75.5	32,966	64.00	14.22	515	7,325
1938	76.5	21,064	64.00	13.89	329	4,572

1937	77.5	51,683	64.00	13.57	808	10,957
1936	78.5	1,475	64.00	13.25	23	305
1935	79.5	0	64.00	12.93	0	0
1934	80.5	0	64.00	12.62	0	0
1933	81.5	0	64.00	12.31	0	0
1932	82.5	0	64.00	12.01	0	0
1931	83.5	0	64.00	11.71	0	0
1930	84.5	332	64.00	11.42	5	59
1929	85.5	1,241	64.00	11.12	19	216
1928	86.5	10,128	64.00	10.84	158	1,715
1927	87.5	624	64.00	10.55	10	103
1926	88.5	0	64.00	10.27	0	0
1925	89.5	0	64.00	9.99	0	0
1924	90.5	0	64.00	9.71	0	0
1923	91.5	0	64.00	9.44	0	0
1922	92.5	0	64.00	9.16	0	0
1921	93.5	0	64.00	8.90	0	0
1920	94.5	0	64.00	8.63	0	0
1919	95.5	0	64.00	8.36	0	0
1918	96.5	0	64.00	8.10	0	0
1917	97.5	0	64.00	7.84	0	0
1916	98.5	0	64.00	7.58	0	0
1915	99.5	0	64.00	7.32	0	0
1914	100.5	0	64.00	7.06	0	0
1913	101.5	0	64.00	6.81	0	0
1912	102.5	0	64.00	6.55	0	0
1911	103.5	0	64.00	6.30	0	0
1910	104.5	0	64.00	6.04	0	0
1909	105.5	0	64.00	5.79	0	0
1908	106.5	0	64.00	5.54	0	0
1907	107.5	0	64.00	5.29	0	0
1906	108.5	0	64.00	5.03	0	0
1905	109.5	0	64.00	4.79	0	0
1904	110.5	0	64.00	4.53	0	0
1903	111.5	0	64.00	4.28	0	0
1902	112.5	0	64.00	4.03	0	0
1901	113.5	0	64.00	3.77	0	0
1900	114.5	159,786	64.00	3.52	2,497	8,798

147,450,528

2,303,915 107,518,004

AVERAGE SERVICE LIFE	64.00
AVERAGE REMAINING LIFE	46.67

Observed Life Table Results**Empire District Elec****Account: 366.00 -**

Age	Exposures	Retirements	Retirement Ratio (%)	Survivor Ratio (%)	Cumulative Survivors
BAND		1967 - 2014			
0	30,289,111	0	0.0000	100.0000	1.0000
0.5	29,348,681	38,871	0.1324	99.8676	1.0000
1.5	29,901,464	178,352	0.5965	99.4035	0.9987
2.5	29,775,570	179,579	0.6031	99.3969	0.9927
3.5	29,607,714	1,679	0.0057	99.9943	0.9867
4.5	29,606,035	1,548	0.0052	99.9948	0.9867
5.5	29,077,340	17,599	0.0605	99.9395	0.9866
6.5	26,922,223	9,461	0.0351	99.9649	0.9860
7.5	23,615,976	3,690	0.0156	99.9844	0.9857
8.5	20,924,149	6,978	0.0333	99.9667	0.9855
9.5	18,121,174	2,778	0.0153	99.9847	0.9852
10.5	16,870,619	5,005	0.0297	99.9703	0.9850
11.5	15,813,123	1,147	0.0073	99.9927	0.9848
12.5	15,064,450	17,302	0.1149	99.8851	0.9847
13.5	14,027,452	10,563	0.0753	99.9247	0.9836
14.5	12,804,252	17,877	0.1396	99.8604	0.9828
15.5	11,528,010	17,557	0.1523	99.8477	0.9814
16.5	10,420,986	6,542	0.0628	99.9372	0.9799
17.5	9,586,485	9,301	0.0970	99.9030	0.9793
18.5	8,663,406	14,896	0.1719	99.8281	0.9784
19.5	7,792,864	40,336	0.5176	99.4824	0.9767
20.5	6,667,839	22,247	0.3336	99.6664	0.9716
21.5	5,455,362	13,924	0.2552	99.7448	0.9684
22.5	4,657,175	15,941	0.3423	99.6577	0.9659
23.5	4,042,124	10,340	0.2558	99.7442	0.9626
24.5	3,659,391	23,822	0.6510	99.3490	0.9602
25.5	3,002,287	17,800	0.5929	99.4071	0.9539
26.5	2,669,418	9,524	0.3568	99.6432	0.9483
27.5	2,197,845	10,278	0.4676	99.5324	0.9449
28.5	1,785,673	11,710	0.6558	99.3442	0.9405
29.5	1,558,092	13,284	0.8526	99.1474	0.9343
30.5	1,415,988	4,154	0.2934	99.7066	0.9263
31.5	1,238,312	2,039	0.1647	99.8353	0.9236
32.5	1,123,354	10,318	0.9185	99.0815	0.9221
33.5	1,006,632	5,358	0.5323	99.4677	0.9136
34.5	865,180	1,409	0.1629	99.8371	0.9087
35.5	697,956	5,989	0.8581	99.1419	0.9073
36.5	549,909	2,531	0.4603	99.5397	0.8995
37.5	437,596	0	0.0000	100.0000	0.8953
38.5	351,696	0	0.0000	100.0000	0.8953

39.5	268,850	0	0.0000	100.0000	0.8953
40.5	179,142	1,017	0.5677	99.4323	0.8953
41.5	70,358	4,187	5.9510	94.0490	0.8903
42.5	4,739	0	0.0000	100.0000	0.8373
43.5	3,943	0	0.0000	100.0000	0.8373
44.5	389	165	42.4165	57.5835	0.8373
45.5	58	0	0.0000	100.0000	0.4821
46.5	58	0	0.0000	100.0000	0.4821

Best Fit Curve Results

Empire District Elec

Account: 366.00 -

Curve	Life	Sum of Squared Differences
BAND	1967 - 2014	
R2.5	67.0	26.527
L1	99.0	30.960
L1.5	85.0	30.997
S0.5	87.0	34.889
R2	77.0	43.429
S1	76.0	43.943
R3	60.0	52.725
S0	100.0	52.997
S1.5	69.0	63.854
L2	74.0	66.908
R1.5	94.0	92.017
S2	63.0	134.882
L3	62.0	184.370
R4	53.0	225.017
R1	100.0	227.605
L0.5	100.0	302.519
S3	56.0	305.638
L4	54.0	343.352
S-0.5	100.0	597.210
S4	52.0	605.078
R5	49.0	629.861
L5	50.0	659.580
R0.5	100.0	853.079
S5	49.0	921.904
L0	100.0	1,169.233
S6	47.0	1,226.540
O1	100.0	1,991.411
SQ	45.0	2,136.284
O2	100.0	3,031.902
O3	100.0	9,138.871
O4	100.0	19,659.758

Analytical Parameters

OLT Placement Band: 1967 - 2014

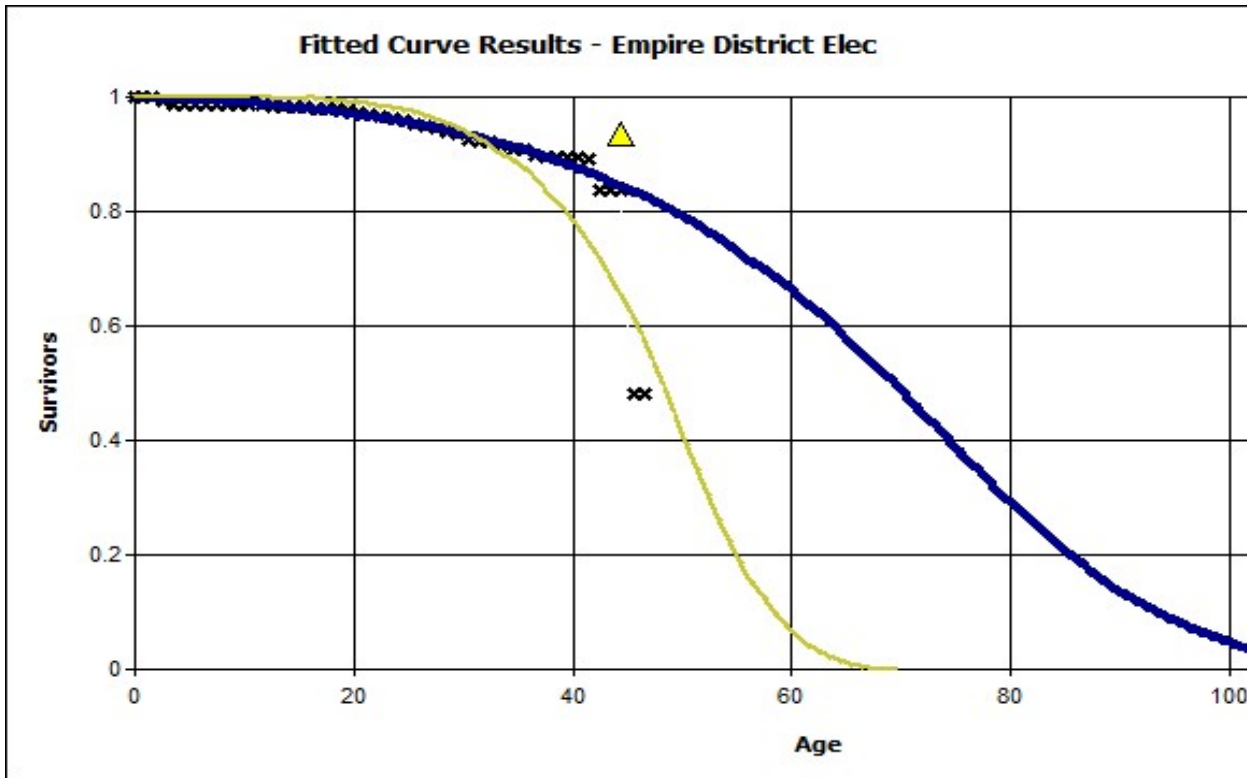
OLT Experience Band: 1967 - 2014

Minimum Life Parameter 6

Maximum Life Paramete 100

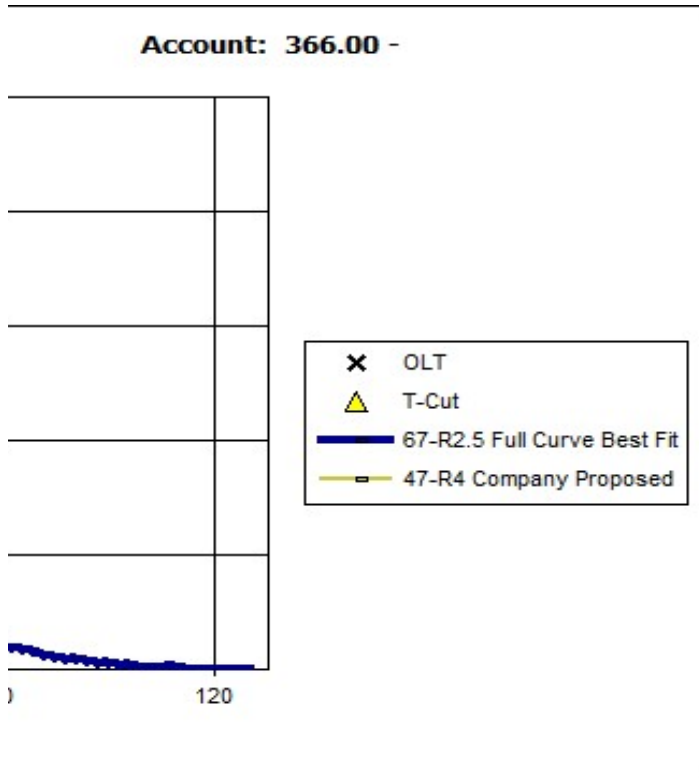
Life Increment Paramete 1

Max Age (T-Cut): 44.5



Analytical Parameters

OLT Placement Band:	1967 - 2014
OLT Experience Band:	1967 - 2014
Minimum Life Parameter:	6
Maximum Life Parameter:	100
Life Increment Parameter:	1
Max Age (T-Cut):	46.0



Empire District Elec

366.00 Gen Arm -

Calculation of Remaining Life
Based Upon Broad Group/Vintage Group Procedures
Related to Original Cost as of December 31, 2014

Survivor Curve .. IOWA: 67 R2.5

<u>Year</u>	<u>Age</u>	<u>Surviving Investment</u>	<u>BG/VG Average</u>		<u>ASL Weights</u>	<u>RL Weights</u>
			<u>Service Life</u>	<u>Remaining Life</u>		
(1)	(2)	(3)	(4)	(5)	(6)=(3)/(4)	(7)=(6)*(5)
2014	0.5	1,117,364	67.00	66.53	16,677	1,109,453
2013	1.5	0	67.00	65.58	0	0
2012	2.5	10,150	67.00	64.64	151	9,793
2011	3.5	286	67.00	63.70	4	272
2010	4.5	0	67.00	62.77	0	0
2009	5.5	527,452	67.00	61.84	7,872	486,815
2008	6.5	2,141,376	67.00	60.91	31,961	1,946,728
2007	7.5	3,296,785	67.00	59.98	49,206	2,951,602
2006	8.5	2,688,136	67.00	59.06	40,121	2,369,715
2005	9.5	2,796,079	67.00	58.15	41,733	2,426,570
2004	10.5	1,247,877	67.00	57.23	18,625	1,065,945
2003	11.5	1,052,761	67.00	56.32	15,713	884,974
2002	12.5	749,984	67.00	55.42	11,194	620,312
2001	13.5	1,019,884	67.00	54.51	15,222	829,816
2000	14.5	1,212,637	67.00	53.62	18,099	970,404
1999	15.5	1,242,055	67.00	52.72	18,538	977,386
1998	16.5	1,089,467	67.00	51.83	16,261	842,867
1997	17.5	827,959	67.00	50.95	12,358	629,626
1996	18.5	913,778	67.00	50.07	13,638	682,902
1995	19.5	829,875	67.00	49.20	12,386	609,369
1994	20.5	1,084,689	67.00	48.33	16,189	782,412
1993	21.5	1,134,733	67.00	47.46	16,936	803,879
1992	22.5	784,263	67.00	46.61	11,705	545,552
1991	23.5	599,110	67.00	45.75	8,942	409,126
1990	24.5	372,445	67.00	44.91	5,559	249,632
1989	25.5	495,830	67.00	44.07	7,400	326,101
1988	26.5	166,510	67.00	43.23	2,485	107,436
1987	27.5	358,970	67.00	42.40	5,358	227,169
1986	28.5	401,894	67.00	41.58	5,998	249,396
1985	29.5	163,087	67.00	40.76	2,434	99,214

1984	30.5	98,308	67.00	39.95	1,467	58,616
1983	31.5	118,496	67.00	39.14	1,769	69,230
1982	32.5	84,168	67.00	38.35	1,256	48,173
1981	33.5	92,160	67.00	37.56	1,376	51,658
1980	34.5	110,410	67.00	36.77	1,648	60,596
1979	35.5	112,211	67.00	35.99	1,675	60,281
1978	36.5	115,124	67.00	35.22	1,718	60,524
1977	37.5	105,163	67.00	34.46	1,570	54,088
1976	38.5	85,901	67.00	33.70	1,282	43,213
1975	39.5	82,846	67.00	32.96	1,237	40,749
1974	40.5	89,708	67.00	32.21	1,339	43,133
1973	41.5	107,764	67.00	31.48	1,608	50,635
1972	42.5	61,432	67.00	30.76	917	28,200
1971	43.5	795	67.00	30.04	12	356
1970	44.5	3,554	67.00	29.33	53	1,556
1969	45.5	165	67.00	28.63	2	71
1968	46.5	0	67.00	27.94	0	0
1967	47.5	58	67.00	27.25	1	24

29,593,699

441,697 23,885,565

AVERAGE SERVICE LIFE	67.00
AVERAGE REMAINING LIFE	54.08

Observed Life Table Results**Empire District Elec****Account: 367.00 -**

Age	Exposures	Retirements	Retirement Ratio (%)	Survivor Ratio (%)	Cumulative Survivors
BAND		1967 - 2014			
0	55,584,859	5	0.0000	100.0000	1.0000
0.5	54,875,404	57,812	0.1054	99.8946	1.0000
1.5	55,327,758	419,602	0.7584	99.2416	0.9989
2.5	55,013,739	118,482	0.2154	99.7846	0.9914
3.5	54,934,277	11,361	0.0207	99.9793	0.9892
4.5	54,924,155	26,046	0.0474	99.9526	0.9890
5.5	54,414,388	49,413	0.0908	99.9092	0.9886
6.5	51,466,373	131,679	0.2559	99.7441	0.9877
7.5	45,254,924	107,272	0.2370	99.7630	0.9851
8.5	41,712,688	42,871	0.1028	99.8972	0.9828
9.5	38,522,464	121,012	0.3141	99.6859	0.9818
10.5	36,370,107	183,713	0.5051	99.4949	0.9787
11.5	34,368,221	152,213	0.4429	99.5571	0.9738
12.5	32,682,009	356,836	1.0918	98.9082	0.9695
13.5	30,481,305	284,314	0.9327	99.0673	0.9589
14.5	27,892,868	278,674	0.9991	99.0009	0.9499
15.5	24,869,080	231,697	0.9317	99.0683	0.9404
16.5	22,813,351	410,056	1.7974	98.2026	0.9317
17.5	20,764,042	167,200	0.8052	99.1948	0.9149
18.5	18,410,389	101,009	0.5487	99.4513	0.9076
19.5	15,933,401	108,214	0.6792	99.3208	0.9026
20.5	13,429,872	152,078	1.1324	98.8676	0.8964
21.5	11,045,488	124,313	1.1255	98.8745	0.8863
22.5	9,538,771	67,167	0.7041	99.2959	0.8763
23.5	8,396,015	88,940	1.0593	98.9407	0.8702
24.5	6,951,129	19,630	0.2824	99.7176	0.8609
25.5	5,901,335	36,072	0.6113	99.3887	0.8585
26.5	5,303,702	12,019	0.2266	99.7734	0.8533
27.5	4,786,745	19,152	0.4001	99.5999	0.8513
28.5	4,428,958	5,883	0.1328	99.8672	0.8479
29.5	4,174,180	18,358	0.4398	99.5602	0.8468
30.5	3,758,305	8,807	0.2343	99.7657	0.8431
31.5	3,450,647	3,422	0.0992	99.9008	0.8411
32.5	3,021,434	4,704	0.1557	99.8443	0.8403
33.5	2,762,282	4,704	0.1703	99.8297	0.8389
34.5	2,357,759	9,193	0.3899	99.6101	0.8375
35.5	1,807,174	39,013	2.1588	97.8412	0.8343
36.5	1,404,331	2,263	0.1611	99.8389	0.8162
37.5	1,097,032	3,074	0.2802	99.7198	0.8149
38.5	856,611	3,287	0.3837	99.6163	0.8126

39.5	660,396	252	0.0382	99.9618	0.8095
40.5	448,720	0	0.0000	100.0000	0.8092
41.5	288,012	0	0.0000	100.0000	0.8092
42.5	166,386	104	0.0625	99.9375	0.8092
43.5	99,442	0	0.0000	100.0000	0.8087
44.5	57,166	0	0.0000	100.0000	0.8087
45.5	7,507	0	0.0000	100.0000	0.8087
46.5	6,351	1,161	18.2806	81.7194	0.8087

Best Fit Curve Results

Empire District Elec

Account: 367.00 -

Curve	Life	Sum of Squared Differences
BAND	1967 - 2014	
R1	65.0	106.681
R1.5	59.0	116.018
S0	65.0	154.325
R2	53.0	239.949
S0.5	60.0	252.988
L1	65.0	318.613
L1.5	61.0	413.790
R2.5	49.0	421.927
S1	55.0	476.991
S-0.5	65.0	535.374
R0.5	65.0	601.575
L0.5	65.0	605.020
S1.5	52.0	681.788
L2	56.0	749.674
R3	46.0	759.506
S2	49.0	1,035.467
L3	50.0	1,352.689
R4	44.0	1,513.673
L0	65.0	1,515.388
S3	46.0	1,694.992
O1	65.0	1,753.057
L4	45.0	1,928.398
S4	43.0	2,568.568
R5	42.0	2,706.451
L5	43.0	2,771.632
O2	65.0	3,085.123
S5	42.0	3,308.098
S6	41.0	3,932.478
SQ	40.0	5,212.374
O3	65.0	10,642.561
O4	65.0	22,791.593

Analytical Parameters

OLT Placement Band: 1967 - 2014

OLT Experience Band: 1967 - 2014

Minimum Life Parameter 4

Maximum Life Parameter 65

Life Increment Parameter 1

Max Age (T-Cut): 39.5



Analytical Parameters

OLT Placement Band:	1967 - 2014
OLT Experience Band:	1967 - 2014
Minimum Life Parameter:	4
Maximum Life Parameter:	65
Life Increment Parameter:	1
Max Age (T-Cut):	41.0

Empire District Elec

367.00 Gen Arm -

Calculation of Remaining Life
Based Upon Broad Group/Vintage Group Procedures
Related to Original Cost as of December 31, 2014

Survivor Curve .. IOWA:		53	R2			
<u>Year</u>	<u>Age</u>	<u>Surviving Investment</u>	<u>BG/VG Average</u>		<u>ASL Weights</u>	<u>RL Weights</u>
			<u>Service Life</u>	<u>Remaining Life</u>		
(1)	(2)	(3)	(4)	(5)	(6)=(3)/(4)	(7)=(6)*(5)
2014	0.5	930,439	53.00	52.55	17,555	922,462
2013	1.5	0	53.00	51.64	0	0
2012	2.5	52	53.00	50.75	1	50
2011	3.5	0	53.00	49.85	0	0
2010	4.5	0	53.00	48.97	0	0
2009	5.5	485,836	53.00	48.08	9,167	440,776
2008	6.5	2,914,774	53.00	47.21	54,996	2,596,209
2007	7.5	6,081,190	53.00	46.34	114,739	5,316,558
2006	8.5	3,434,965	53.00	45.47	64,811	2,946,938
2005	9.5	3,147,353	53.00	44.61	59,384	2,649,105
2004	10.5	2,031,533	53.00	43.76	38,331	1,677,182
2003	11.5	1,818,754	53.00	42.91	34,316	1,472,404
2002	12.5	1,533,999	53.00	42.06	28,943	1,217,495
2001	13.5	1,843,868	53.00	41.23	34,790	1,434,339
2000	14.5	2,304,143	53.00	40.40	43,474	1,756,305
1999	15.5	2,745,113	53.00	39.58	51,795	2,049,777
1998	16.5	1,833,544	53.00	38.76	34,595	1,340,844
1997	17.5	1,643,377	53.00	37.95	31,007	1,176,652
1996	18.5	2,191,616	53.00	37.14	41,351	1,535,973
1995	19.5	2,375,979	53.00	36.35	44,830	1,629,483
1994	20.5	2,395,315	53.00	35.56	45,195	1,607,074
1993	21.5	2,232,305	53.00	34.78	42,119	1,464,765
1992	22.5	1,425,075	53.00	34.00	26,888	914,254
1991	23.5	930,796	53.00	33.23	17,562	583,674
1990	24.5	1,072,233	53.00	32.47	20,231	656,993
1989	25.5	858,979	53.00	31.72	16,207	514,136
1988	26.5	171,836	53.00	30.98	3,242	100,438
1987	27.5	255,397	53.00	30.24	4,819	145,733
1986	28.5	337,063	53.00	29.51	6,360	187,705
1985	29.5	248,895	53.00	28.80	4,696	135,227

1984	30.5	384,425	53.00	28.08	7,253	203,705
1983	31.5	280,214	53.00	27.38	5,287	144,770
1982	32.5	386,131	53.00	26.69	7,285	194,438
1981	33.5	251,971	53.00	26.00	4,754	123,625
1980	34.5	398,395	53.00	25.33	7,517	190,387
1979	35.5	489,563	53.00	24.66	9,237	227,799
1978	36.5	359,633	53.00	24.00	6,786	162,886
1977	37.5	272,693	53.00	23.36	5,145	120,180
1976	38.5	237,346	53.00	22.72	4,478	101,748
1975	39.5	192,926	53.00	22.09	3,640	80,422
1974	40.5	211,425	53.00	21.48	3,989	85,670
1973	41.5	160,707	53.00	20.87	3,032	63,278
1972	42.5	121,627	53.00	20.27	2,295	46,521
1971	43.5	66,840	53.00	19.69	1,261	24,826
1970	44.5	42,276	53.00	19.11	798	15,243
1969	45.5	49,660	53.00	18.55	937	17,377
1968	46.5	1,156	53.00	17.99	22	392
1967	47.5	5,190	53.00	17.45	98	1,709

51,156,607

965,219 38,277,527

AVERAGE SERVICE LIFE	53.00
AVERAGE REMAINING LIFE	39.66

Observed Life Table Results**Empire District Elec****Account: 368.00 -**

Age	Exposures	Retirements	Retirement Ratio (%)	Survivor Ratio (%)	Cumulative Survivors
BAND		1909 - 2014			
0	102,722,469	157,624	0.1534	99.8466	1.0000
0.5	100,295,533	128,363	0.1280	99.8720	0.9985
1.5	100,367,248	186,198	0.1855	99.8145	0.9972
2.5	100,290,484	181,861	0.1813	99.8187	0.9953
3.5	100,225,354	164,093	0.1637	99.8363	0.9935
4.5	100,094,301	161,016	0.1609	99.8391	0.9919
5.5	96,907,887	176,668	0.1823	99.8177	0.9903
6.5	91,686,453	200,323	0.2185	99.7815	0.9885
7.5	85,877,194	204,680	0.2383	99.7617	0.9863
8.5	81,290,013	222,189	0.2733	99.7267	0.9840
9.5	77,066,219	179,829	0.2333	99.7667	0.9813
10.5	73,963,781	381,431	0.5157	99.4843	0.9790
11.5	70,168,289	270,591	0.3856	99.6144	0.9740
12.5	66,968,578	257,093	0.3839	99.6161	0.9702
13.5	64,418,945	275,578	0.4278	99.5722	0.9665
14.5	61,121,734	263,399	0.4309	99.5691	0.9624
15.5	57,370,683	272,590	0.4751	99.5249	0.9582
16.5	53,560,674	260,018	0.4855	99.5145	0.9537
17.5	50,890,524	277,624	0.5455	99.4545	0.9490
18.5	47,298,574	319,842	0.6762	99.3238	0.9438
19.5	43,712,323	336,186	0.7691	99.2309	0.9375
20.5	39,298,756	432,523	1.1006	98.8994	0.9303
21.5	36,634,466	414,881	1.1325	98.8675	0.9200
22.5	33,919,294	350,830	1.0343	98.9657	0.9096
23.5	33,710,149	403,881	1.1981	98.8019	0.9002
24.5	31,455,640	388,553	1.2352	98.7648	0.8894
25.5	29,111,753	289,858	0.9957	99.0043	0.8784
26.5	27,059,213	259,007	0.9572	99.0428	0.8697
27.5	25,211,128	360,150	1.4285	98.5715	0.8613
28.5	22,889,891	310,069	1.3546	98.6454	0.8490
29.5	19,102,159	309,311	1.6192	98.3808	0.8375
30.5	17,411,946	284,165	1.6320	98.3680	0.8240
31.5	15,935,528	290,246	1.8214	98.1786	0.8105
32.5	14,769,093	224,255	1.5184	98.4816	0.7958
33.5	13,531,831	232,398	1.7174	98.2826	0.7837
34.5	12,439,432	219,592	1.7653	98.2347	0.7702
35.5	11,343,914	251,013	2.2128	97.7872	0.7566
36.5	10,141,369	233,363	2.3011	97.6989	0.7399
37.5	9,259,764	213,823	2.3092	97.6908	0.7229
38.5	8,425,380	166,983	1.9819	98.0181	0.7062

39.5	7,930,205	143,336	1.8075	98.1925	0.6922
40.5	7,299,258	173,075	2.3711	97.6289	0.6797
41.5	6,443,332	138,114	2.1435	97.8565	0.6635
42.5	5,894,848	127,632	2.1651	97.8349	0.6493
43.5	5,157,181	104,891	2.0339	97.9661	0.6353
44.5	4,677,521	96,188	2.0564	97.9436	0.6223
45.5	4,146,893	92,705	2.2355	97.7645	0.6095
46.5	3,741,789	72,762	1.9446	98.0554	0.5959
47.5	3,207,465	58,282	1.8171	98.1829	0.5843
48.5	2,828,946	55,079	1.9470	98.0530	0.5737
49.5	2,517,507	60,610	2.4075	97.5925	0.5625
50.5	2,279,282	40,708	1.7860	98.2140	0.5490
51.5	2,065,928	46,871	2.2688	97.7312	0.5392
52.5	1,863,173	32,296	1.7334	98.2666	0.5270
53.5	1,681,126	23,608	1.4043	98.5957	0.5178
54.5	1,498,332	22,870	1.5264	98.4736	0.5106
55.5	1,398,133	35,345	2.5280	97.4720	0.5028
56.5	1,317,291	18,401	1.3969	98.6031	0.4901
57.5	1,163,131	7,876	0.6771	99.3229	0.4832
58.5	1,004,298	6,716	0.6687	99.3313	0.4799
59.5	806,496	7,629	0.9459	99.0541	0.4767
60.5	647,490	2,938	0.4538	99.5462	0.4722
61.5	530,099	3,726	0.7029	99.2971	0.4701
62.5	376,652	2,363	0.6274	99.3726	0.4668
63.5	355,706	1,807	0.5080	99.4920	0.4638
64.5	300,110	895	0.2982	99.7018	0.4615
65.5	190,782	465	0.2437	99.7563	0.4601
66.5	142,170	374	0.2631	99.7369	0.4590
67.5	109,010	203	0.1862	99.8138	0.4578
68.5	91,032	0	0.0000	100.0000	0.4569
69.5	39,455	78	0.1977	99.8023	0.4569
70.5	35,763	0	0.0000	100.0000	0.4560
71.5	27,451	79	0.2878	99.7122	0.4560
72.5	24,445	0	0.0000	100.0000	0.4547
73.5	16,222	0	0.0000	100.0000	0.4547
74.5	14,456	0	0.0000	100.0000	0.4547
75.5	12,668	0	0.0000	100.0000	0.4547
76.5	11,312	0	0.0000	100.0000	0.4547
77.5	3,647	0	0.0000	100.0000	0.4547
78.5	2,931	0	0.0000	100.0000	0.4547
79.5	2,079	0	0.0000	100.0000	0.4547
80.5	1,834	0	0.0000	100.0000	0.4547
81.5	1,834	0	0.0000	100.0000	0.4547
82.5	1,834	0	0.0000	100.0000	0.4547
83.5	1,834	0	0.0000	100.0000	0.4547
84.5	275	0	0.0000	100.0000	0.4547
85.5	275	0	0.0000	100.0000	0.4547

86.5	275	0	0.0000	100.0000	0.4547
87.5	164	0	0.0000	100.0000	0.4547
88.5	43	0	0.0000	100.0000	0.4547
89.5	43	0	0.0000	100.0000	0.4547
90.5	43	0	0.0000	100.0000	0.4547
91.5	43	0	0.0000	100.0000	0.4547
92.5	0	0	0.0000	100.0000	0.4547
93.5	0	0	0.0000	100.0000	0.4547
94.5	0	0	0.0000	100.0000	0.4547
95.5	0	0	0.0000	100.0000	0.4547
96.5	0	0	0.0000	100.0000	0.4547
97.5	0	0	0.0000	100.0000	0.4547
98.5	0	0	0.0000	100.0000	0.4547
99.5	0	0	0.0000	100.0000	0.4547
100.5	0	0	0.0000	100.0000	0.4547
101.5	0	0	0.0000	100.0000	0.4547
102.5	0	0	0.0000	100.0000	0.4547
103.5	0	0	0.0000	100.0000	0.4547
104.5	0	0	0.0000	100.0000	0.4547

Best Fit Curve Results
Empire District Elec
Account: 368.00 -

Curve	Life	Sum of Squared Differences
BAND	1909 - 2014	
L1	60.0	74.878
S0.5	55.0	162.901
L1.5	58.0	195.654
S0	56.0	231.642
L0.5	63.0	383.382
R1.5	53.0	425.651
S1	54.0	478.265
R1	54.0	567.865
R2	52.0	793.365
L2	56.0	830.359
S-0.5	59.0	906.766
L0	67.0	971.289
S1.5	53.0	1,201.285
R0.5	57.0	1,228.361
R2.5	52.0	1,861.470
O2	71.0	2,042.790
O1	63.0	2,044.300
S2	52.0	2,375.573
R3	52.0	3,500.492
L3	54.0	3,596.587
S3	52.0	5,657.579
O3	75.0	6,143.035
R4	52.0	8,000.428
L4	53.0	8,425.196
S4	53.0	11,588.998
L5	53.0	14,713.733
R5	53.0	15,918.674
O4	75.0	18,471.371
S5	53.0	18,865.853
S6	55.0	26,679.949
SQ	56.0	46,495.976

Analytical Parameters

OLT Placement Band: 1909 - 2014
 OLT Experience Band: 1909 - 2014
 Minimum Life Parameter 3
 Maximum Life Paramete 75
 Life Increment Paramete 1
 Max Age (T-Cut): 60.5



Analytical Parameters

OLT Placement Band:	1909 - 2014
OLT Experience Band:	1909 - 2014
Minimum Life Parameter:	3
Maximum Life Parameter:	75
Life Increment Parameter:	1
Max Age (T-Cut):	62.0

Empire District Elec

368.00 Gen Arm -

Calculation of Remaining Life
Based Upon Broad Group/Vintage Group Procedures
Related to Original Cost as of December 31, 2014

Survivor Curve .. IOWA: 55 S-0.5

<u>Year</u>	<u>Age</u>	<u>Surviving Investment</u>	<u>BG/VG Average</u>		<u>ASL Weights</u>	<u>RL Weights</u>
			<u>Service Life</u>	<u>Remaining Life</u>		
(1)	(2)	(3)	(4)	(5)	(6)=(3)/(4)	(7)=(6)*(5)
2014	0.5	2,554,255	55.00	54.63	46,441	2,537,061
2013	1.5	8,573	55.00	53.91	156	8,403
2012	2.5	1,700	55.00	53.20	31	1,644
2011	3.5	1	55.00	52.51	0	1
2010	4.5	22	55.00	51.83	0	21
2009	5.5	3,059,419	55.00	51.16	55,626	2,845,646
2008	6.5	5,111,350	55.00	50.50	92,934	4,692,996
2007	7.5	5,691,573	55.00	49.85	103,483	5,158,553
2006	8.5	4,439,039	55.00	49.21	80,710	3,971,629
2005	9.5	4,022,470	55.00	48.58	73,136	3,552,687
2004	10.5	2,941,665	55.00	47.95	53,485	2,564,712
2003	11.5	3,433,027	55.00	47.34	62,419	2,954,609
2002	12.5	2,944,978	55.00	46.73	53,545	2,501,930
2001	13.5	2,346,598	55.00	46.12	42,665	1,967,843
2000	14.5	2,908,326	55.00	45.53	52,879	2,407,352
1999	15.5	3,261,124	55.00	44.94	59,293	2,664,354
1998	16.5	3,531,873	55.00	44.35	64,216	2,847,994
1997	17.5	2,430,683	55.00	43.77	44,194	1,934,439
1996	18.5	3,317,748	55.00	43.20	60,323	2,605,792
1995	19.5	3,202,190	55.00	42.63	58,222	2,481,925
1994	20.5	4,070,182	55.00	42.07	74,003	3,112,959
1993	21.5	2,160,205	55.00	41.51	39,276	1,630,211
1992	22.5	2,254,483	55.00	40.95	40,991	1,678,632
1991	23.5	1,891,763	55.00	40.40	34,396	1,389,647
1990	24.5	1,745,860	55.00	39.86	31,743	1,265,149
1989	25.5	1,904,942	55.00	39.31	34,635	1,361,669
1988	26.5	1,727,661	55.00	38.78	31,412	1,218,057
1987	27.5	1,563,597	55.00	38.24	28,429	1,087,209
1986	28.5	1,951,270	55.00	37.71	35,478	1,337,965
1985	29.5	1,413,594	55.00	37.19	25,702	955,755

1984	30.5	1,256,161	55.00	36.66	22,839	837,367
1983	31.5	1,031,833	55.00	36.14	18,761	678,078
1982	32.5	759,683	55.00	35.63	13,812	492,099
1981	33.5	991,452	55.00	35.11	18,026	632,979
1980	34.5	798,363	55.00	34.60	14,516	502,299
1979	35.5	850,556	55.00	34.10	15,465	527,292
1978	36.5	932,704	55.00	33.59	16,958	569,665
1977	37.5	662,834	55.00	33.09	12,052	398,792
1976	38.5	719,290	55.00	32.59	13,078	426,234
1975	39.5	377,825	55.00	32.10	6,870	220,481
1974	40.5	486,863	55.00	31.60	8,852	279,740
1973	41.5	690,411	55.00	31.11	12,553	390,527
1972	42.5	422,414	55.00	30.62	7,680	235,182
1971	43.5	608,394	55.00	30.14	11,062	333,345
1970	44.5	370,346	55.00	29.65	6,734	199,655
1969	45.5	423,805	55.00	29.17	7,706	224,760
1968	46.5	308,781	55.00	28.69	5,614	161,064
1967	47.5	417,666	55.00	28.21	7,594	214,230
1966	48.5	309,034	55.00	27.73	5,619	155,836
1965	49.5	254,387	55.00	27.26	4,625	126,087
1964	50.5	172,124	55.00	26.79	3,130	83,836
1963	51.5	165,391	55.00	26.32	3,007	79,142
1962	52.5	149,994	55.00	25.85	2,727	70,497
1961	53.5	144,289	55.00	25.38	2,623	66,591
1960	54.5	159,699	55.00	24.92	2,904	72,352
1959	55.5	146,337	55.00	24.45	2,661	65,065
1958	56.5	130,322	55.00	23.99	2,369	56,850
1957	57.5	131,744	55.00	23.53	2,395	56,367
1956	58.5	139,094	55.00	23.07	2,529	58,351
1955	59.5	177,624	55.00	22.62	3,230	73,037
1954	60.5	143,982	55.00	22.16	2,618	58,010
1953	61.5	100,513	55.00	21.70	1,828	39,665
1952	62.5	55,771	55.00	21.25	1,014	21,549
1951	63.5	46,672	55.00	20.80	849	17,649
1950	64.5	48,578	55.00	20.35	883	17,971
1949	65.5	39,119	55.00	19.90	711	14,152
1948	66.5	43,311	55.00	19.45	787	15,315
1947	67.5	29,311	55.00	19.00	533	10,126
1946	68.5	17,142	55.00	18.55	312	5,782
1945	69.5	18,459	55.00	18.11	336	6,077
1944	70.5	3,074	55.00	17.66	56	987
1943	71.5	2,794	55.00	17.22	51	875
1942	72.5	1,943	55.00	16.77	35	593
1941	73.5	7,720	55.00	16.33	140	2,292
1940	74.5	1,766	55.00	15.89	32	510
1939	75.5	1,788	55.00	15.45	33	502
1938	76.5	1,356	55.00	15.01	25	370

1937	77.5	6,915	55.00	14.57	126	1,831
1936	78.5	716	55.00	14.13	13	184
1935	79.5	480	55.00	13.69	9	119
1934	80.5	245	55.00	13.25	4	59
1933	81.5	0	55.00	12.81	0	0
1932	82.5	0	55.00	12.37	0	0
1931	83.5	0	55.00	11.93	0	0
1930	84.5	49	55.00	11.50	1	10
1929	85.5	0	55.00	11.06	0	0
1928	86.5	0	55.00	10.62	0	0
1927	87.5	111	55.00	10.18	2	21
1926	88.5	121	55.00	9.74	2	21
1925	89.5	0	55.00	9.31	0	0
1924	90.5	0	55.00	8.87	0	0
1923	91.5	0	55.00	8.43	0	0
1922	92.5	43	55.00	7.99	1	6
1921	93.5	0	55.00	7.55	0	0
1920	94.5	0	55.00	7.11	0	0
1919	95.5	0	55.00	6.67	0	0
1918	96.5	0	55.00	6.23	0	0
1917	97.5	0	55.00	5.78	0	0
1916	98.5	0	55.00	5.34	0	0
1915	99.5	0	55.00	4.89	0	0
1914	100.5	0	55.00	4.44	0	0
1913	101.5	0	55.00	4.00	0	0
1912	102.5	0	55.00	3.54	0	0
1911	103.5	0	55.00	3.09	0	0
1910	104.5	0	55.00	2.64	0	0
1909	105.5	0	55.00	2.18	0	0

90,651,570

1,648,210 71,239,324

AVERAGE SERVICE LIFE	55.00
AVERAGE REMAINING LIFE	43.22

Observed Life Table Results**Empire District Elec****Account: 369.00 -**

Age	Exposures	Retirements	Retirement Ratio (%)	Survivor Ratio (%)	Cumulative Survivors
BAND		1926 - 2014			
0	70,833,840	911	0.0013	99.9987	1.0000
0.5	67,526,714	0	0.0000	100.0000	1.0000
1.5	67,563,849	61,778	0.0914	99.9086	1.0000
2.5	67,515,970	38	0.0001	99.9999	0.9991
3.5	67,515,934	552	0.0008	99.9992	0.9991
4.5	67,515,382	212	0.0003	99.9997	0.9991
5.5	65,879,159	2,308	0.0035	99.9965	0.9991
6.5	63,399,124	15,828	0.0250	99.9750	0.9990
7.5	56,960,005	7,015	0.0123	99.9877	0.9988
8.5	53,615,737	8,805	0.0164	99.9836	0.9987
9.5	50,426,085	19,559	0.0388	99.9612	0.9985
10.5	47,461,559	5,823	0.0123	99.9877	0.9981
11.5	44,587,771	2,824	0.0063	99.9937	0.9980
12.5	42,392,445	5,667	0.0134	99.9866	0.9979
13.5	39,592,066	7,697	0.0194	99.9806	0.9978
14.5	37,573,070	6,456	0.0172	99.9828	0.9976
15.5	35,672,493	2,355	0.0066	99.9934	0.9974
16.5	33,739,251	4,166	0.0123	99.9877	0.9974
17.5	31,690,249	3,851	0.0122	99.9878	0.9972
18.5	29,422,838	17,157	0.0583	99.9417	0.9971
19.5	26,688,910	26,296	0.0985	99.9015	0.9965
20.5	23,989,426	114,684	0.4781	99.5219	0.9955
21.5	21,512,149	342,113	1.5903	98.4097	0.9908
22.5	19,367,102	311,240	1.6071	98.3929	0.9750
23.5	17,690,663	76,623	0.4331	99.5669	0.9594
24.5	16,063,552	174,416	1.0858	98.9142	0.9552
25.5	14,569,280	155,625	1.0682	98.9318	0.9448
26.5	13,301,417	125,924	0.9467	99.0533	0.9347
27.5	12,049,789	173,805	1.4424	98.5576	0.9259
28.5	10,960,707	170,936	1.5595	98.4405	0.9125
29.5	9,866,144	64,597	0.6547	99.3453	0.8983
30.5	9,052,652	57,808	0.6386	99.3614	0.8924
31.5	8,208,293	53,414	0.6507	99.3493	0.8867
32.5	7,560,292	55,858	0.7388	99.2612	0.8810
33.5	6,871,822	33,705	0.4905	99.5095	0.8744
34.5	6,174,541	80,441	1.3028	98.6972	0.8702
35.5	5,362,010	29,397	0.5482	99.4518	0.8588
36.5	4,642,529	71,718	1.5448	98.4552	0.8541
37.5	3,966,279	16,792	0.4234	99.5766	0.8409
38.5	3,384,344	50,888	1.5036	98.4964	0.8374

39.5	2,908,791	11,765	0.4045	99.5955	0.8248
40.5	2,484,486	38,732	1.5590	98.4410	0.8214
41.5	1,954,384	17,678	0.9045	99.0955	0.8086
42.5	1,529,254	27,992	1.8304	98.1696	0.8013
43.5	1,220,290	25,557	2.0943	97.9057	0.7866
44.5	982,161	73,661	7.4999	92.5001	0.7702
45.5	778,637	33,323	4.2797	95.7203	0.7124
46.5	585,220	15,585	2.6631	97.3369	0.6819
47.5	426,950	4,026	0.9430	99.0570	0.6638
48.5	291,709	5,835	2.0003	97.9997	0.6575
49.5	171,736	1,392	0.8105	99.1895	0.6443
50.5	82,236	15,226	18.5150	81.4850	0.6391
51.5	16,450	2,917	17.7325	82.2675	0.5208
52.5	4,770	0	0.0000	100.0000	0.4284
53.5	3,051	0	0.0000	100.0000	0.4284
54.5	3,051	0	0.0000	100.0000	0.4284
55.5	3,051	0	0.0000	100.0000	0.4284
56.5	3,052	0	0.0000	100.0000	0.4284
57.5	3,052	0	0.0000	100.0000	0.4284
58.5	3,052	0	0.0000	100.0000	0.4284
59.5	3,052	0	0.0000	100.0000	0.4284
60.5	3,052	0	0.0000	100.0000	0.4284
61.5	3,052	0	0.0000	100.0000	0.4284
62.5	3,052	0	0.0000	100.0000	0.4284
63.5	3,052	0	0.0000	100.0000	0.4284
64.5	3,052	0	0.0000	100.0000	0.4284
65.5	3,052	0	0.0000	100.0000	0.4284
66.5	3,052	0	0.0000	100.0000	0.4284
67.5	3,052	0	0.0000	100.0000	0.4284
68.5	3,052	0	0.0000	100.0000	0.4284
69.5	3,052	0	0.0000	100.0000	0.4284
70.5	3,052	0	0.0000	100.0000	0.4284
71.5	3,052	0	0.0000	100.0000	0.4284
72.5	3,052	0	0.0000	100.0000	0.4284
73.5	3,052	0	0.0000	100.0000	0.4284
74.5	3,052	0	0.0000	100.0000	0.4284
75.5	3,052	0	0.0000	100.0000	0.4284
76.5	2,424	0	0.0000	100.0000	0.4284
77.5	2,424	0	0.0000	100.0000	0.4284
78.5	984	0	0.0000	100.0000	0.4284
79.5	0	0	0.0000	100.0000	0.4284
80.5	0	0	0.0000	100.0000	0.4284
81.5	0	0	0.0000	100.0000	0.4284
82.5	0	0	0.0000	100.0000	0.4284
83.5	0	0	0.0000	100.0000	0.4284
84.5	0	0	0.0000	100.0000	0.4284
85.5	0	0	0.0000	100.0000	0.4284

86.5	0	0	0.0000	100.0000	0.4284
87.5	0	0	0.0000	100.0000	0.4284

Best Fit Curve Results

Empire District Elec

Account: 369.00 -

Curve	Life	Sum of Squared Differences
BAND	1926 - 2014	
R3	53.0	154.252
S2	56.0	189.593
S1.5	58.0	215.526
L2	63.0	224.553
R2.5	55.0	290.328
L3	57.0	326.682
S1	61.0	363.907
R4	51.0	500.175
S3	53.0	519.575
L1.5	65.0	531.656
R2	58.0	589.898
S0.5	65.0	680.923
L4	53.0	882.806
R1.5	63.0	1,121.484
S0	65.0	1,395.362
S4	51.0	1,544.932
L1	65.0	1,621.729
R1	65.0	1,809.129
R5	50.0	2,067.914
L5	51.0	2,140.497
S5	50.0	3,105.370
S-0.5	65.0	3,284.928
L0.5	65.0	3,398.257
R0.5	65.0	3,497.668
S6	50.0	5,067.324
L0	65.0	5,924.297
O1	65.0	6,178.611
O2	65.0	9,156.880
SQ	52.0	13,370.790
O3	65.0	23,979.082
O4	65.0	44,721.776

Analytical Parameters

OLT Placement Band: 1926 - 2014

OLT Experience Band: 1926 - 2014

Minimum Life Parameter 3

Maximum Life Parameter 65

Life Increment Parameter 1

Max Age (T-Cut): 51.5



Analytical Parameters

OLT Placement Band:	1926 - 2014
OLT Experience Band:	1926 - 2014
Minimum Life Parameter:	3
Maximum Life Parameter:	65
Life Increment Parameter:	1
Max Age (T-Cut):	53.0

Empire District Elec

369.00 Gen Arm -

Calculation of Remaining Life
Based Upon Broad Group/Vintage Group Procedures
Related to Original Cost as of December 31, 2014

Survivor Curve .. IOWA: 53 R3						
<u>Year</u>	<u>Age</u>	<u>Surviving Investment</u>	<u>BG/VG Average</u>		<u>ASL Weights</u>	<u>RL Weights</u>
			<u>Service Life</u>	<u>Remaining Life</u>		
(1)	(2)	(3)	(4)	(5)	(6)=(3)/(4)	(7)=(6)*(5)
2014	0.5	3,312,172	53.00	52.51	62,494	3,281,333
2013	1.5	0	53.00	51.52	0	0
2012	2.5	0	53.00	50.54	0	0
2011	3.5	0	53.00	49.57	0	0
2010	4.5	0	53.00	48.59	0	0
2009	5.5	1,636,011	53.00	47.62	30,868	1,469,925
2008	6.5	2,477,727	53.00	46.65	46,750	2,180,945
2007	7.5	6,423,291	53.00	45.69	121,194	5,537,075
2006	8.5	3,337,253	53.00	44.73	62,967	2,816,374
2005	9.5	3,180,847	53.00	43.77	60,016	2,627,044
2004	10.5	2,944,967	53.00	42.82	55,565	2,379,419
2003	11.5	2,867,965	53.00	41.88	54,113	2,266,047
2002	12.5	2,192,502	53.00	40.94	41,368	1,693,462
2001	13.5	2,794,712	53.00	40.00	52,730	2,109,338
2000	14.5	2,011,299	53.00	39.07	37,949	1,482,822
1999	15.5	1,894,121	53.00	38.15	35,738	1,363,485
1998	16.5	1,930,887	53.00	37.24	36,432	1,356,604
1997	17.5	2,044,835	53.00	36.33	38,582	1,401,613
1996	18.5	2,263,560	53.00	35.43	42,709	1,513,056
1995	19.5	2,709,732	53.00	34.53	51,127	1,765,616
1994	20.5	2,673,188	53.00	33.65	50,438	1,697,132
1993	21.5	2,362,593	53.00	32.77	44,577	1,460,818
1992	22.5	1,821,148	53.00	31.90	34,361	1,096,158
1991	23.5	1,362,169	53.00	31.04	25,701	797,766
1990	24.5	1,539,112	53.00	30.19	29,040	876,639
1989	25.5	1,313,200	53.00	29.34	24,777	727,064
1988	26.5	1,093,940	53.00	28.51	20,640	588,443
1987	27.5	1,139,151	53.00	27.68	21,493	595,033
1986	28.5	915,278	53.00	26.87	17,269	464,011
1985	29.5	924,256	53.00	26.06	17,439	454,510

1984	30.5	742,167	53.00	25.27	14,003	353,821
1983	31.5	787,990	53.00	24.48	14,868	363,982
1982	32.5	595,571	53.00	23.71	11,237	266,386
1981	33.5	627,366	53.00	22.94	11,837	271,551
1980	34.5	663,572	53.00	22.19	12,520	277,778
1979	35.5	732,090	53.00	21.44	13,813	296,196
1978	36.5	722,355	53.00	20.71	13,629	282,291
1977	37.5	604,532	53.00	19.99	11,406	228,041
1976	38.5	576,783	53.00	19.29	10,883	209,877
1975	39.5	424,664	53.00	18.59	8,013	148,960
1974	40.5	412,542	53.00	17.91	7,784	139,403
1973	41.5	491,369	53.00	17.24	9,271	159,848
1972	42.5	407,451	53.00	16.59	7,688	127,522
1971	43.5	280,972	53.00	15.95	5,301	84,548
1970	44.5	212,572	53.00	15.32	4,011	61,463
1969	45.5	129,863	53.00	14.72	2,450	36,059
1968	46.5	160,095	53.00	14.12	3,021	42,666
1967	47.5	142,685	53.00	13.55	2,692	36,478
1966	48.5	131,215	53.00	12.99	2,476	32,163
1965	49.5	114,138	53.00	12.45	2,154	26,812
1964	50.5	88,108	53.00	11.93	1,662	19,827
1963	51.5	50,561	53.00	11.42	954	10,896
1962	52.5	8,762	53.00	10.93	165	1,808
1961	53.5	1,719	53.00	10.46	32	339
1960	54.5	0	53.00	10.01	0	0
1959	55.5	0	53.00	9.58	0	0
1958	56.5	0	53.00	9.16	0	0
1957	57.5	0	53.00	8.76	0	0
1956	58.5	0	53.00	8.38	0	0
1955	59.5	0	53.00	8.01	0	0
1954	60.5	0	53.00	7.66	0	0
1953	61.5	0	53.00	7.33	0	0
1952	62.5	0	53.00	7.00	0	0
1951	63.5	0	53.00	6.69	0	0
1950	64.5	0	53.00	6.39	0	0
1949	65.5	0	53.00	6.10	0	0
1948	66.5	0	53.00	5.82	0	0
1947	67.5	0	53.00	5.55	0	0
1946	68.5	0	53.00	5.28	0	0
1945	69.5	0	53.00	5.02	0	0
1944	70.5	0	53.00	4.76	0	0
1943	71.5	0	53.00	4.50	0	0
1942	72.5	0	53.00	4.24	0	0
1941	73.5	0	53.00	3.98	0	0
1940	74.5	0	53.00	3.73	0	0
1939	75.5	0	53.00	3.47	0	0
1938	76.5	0	53.00	3.21	0	0

1937	77.5	0	53.00	2.96	0	0
1936	78.5	0	53.00	2.71	0	0
1935	79.5	0	53.00	2.46	0	0
1934	80.5	0	53.00	2.21	0	0
1933	81.5	0	53.00	1.96	0	0
1932	82.5	0	53.00	1.72	0	0
1931	83.5	0	53.00	1.48	0	0
1930	84.5	0	53.00	1.25	0	0
1929	85.5	0	53.00	1.03	0	0
1928	86.5	0	53.00	0.82	0	0
1927	87.5	0	53.00	0.63	0	0
1926	88.5	0	53.00	0.51	0	0

68,275,058

1,288,209 47,480,447

AVERAGE SERVICE LIFE	53.00
AVERAGE REMAINING LIFE	36.86

Observed Life Table Results**Empire District Elec****Account: 370.00 -**

Age	Exposures	Retirements	Retirement Ratio (%)	Survivor Ratio (%)	Cumulative Survivors
BAND		1900 - 2014			
0	23,741,003	98,247	0.4138	99.5862	1.0000
0.5	23,782,312	86,969	0.3657	99.6343	0.9959
1.5	23,882,262	66,274	0.2775	99.7225	0.9922
2.5	24,290,492	62,152	0.2559	99.7441	0.9895
3.5	24,255,685	82,401	0.3397	99.6603	0.9869
4.5	24,189,340	75,564	0.3124	99.6876	0.9836
5.5	24,127,258	87,294	0.3618	99.6382	0.9805
6.5	22,614,044	85,789	0.3794	99.6206	0.9770
7.5	22,254,893	205,807	0.9248	99.0752	0.9733
8.5	21,197,746	157,868	0.7447	99.2553	0.9643
9.5	20,084,751	161,387	0.8035	99.1965	0.9571
10.5	19,113,166	147,212	0.7702	99.2298	0.9494
11.5	18,098,841	167,548	0.9257	99.0743	0.9421
12.5	17,053,036	223,441	1.3103	98.6897	0.9334
13.5	16,359,438	151,582	0.9266	99.0734	0.9211
14.5	15,729,228	136,582	0.8683	99.1317	0.9126
15.5	15,175,872	163,129	1.0749	98.9251	0.9047
16.5	14,482,782	138,494	0.9563	99.0437	0.8949
17.5	13,751,188	123,711	0.8996	99.1004	0.8864
18.5	13,013,695	121,859	0.9364	99.0636	0.8784
19.5	12,092,208	107,679	0.8905	99.1095	0.8702
20.5	11,312,515	99,439	0.8790	99.1210	0.8624
21.5	10,667,627	104,141	0.9762	99.0238	0.8549
22.5	10,116,062	120,331	1.1895	98.8105	0.8465
23.5	9,628,080	119,143	1.2375	98.7625	0.8364
24.5	9,150,276	106,305	1.1618	98.8382	0.8261
25.5	8,589,453	127,496	1.4843	98.5157	0.8165
26.5	8,035,992	92,327	1.1489	98.8511	0.8044
27.5	7,440,767	122,051	1.6403	98.3597	0.7951
28.5	6,962,412	134,960	1.9384	98.0616	0.7821
29.5	6,588,251	193,359	2.9349	97.0651	0.7669
30.5	6,172,891	108,466	1.7571	98.2429	0.7444
31.5	5,840,483	98,475	1.6861	98.3139	0.7313
32.5	5,599,184	119,856	2.1406	97.8594	0.7190
33.5	5,317,486	139,406	2.6217	97.3783	0.7036
34.5	4,600,758	80,597	1.7518	98.2482	0.6852
35.5	4,333,253	100,773	2.3256	97.6744	0.6732
36.5	4,041,994	82,912	2.0513	97.9487	0.6575
37.5	2,986,951	82,046	2.7468	97.2532	0.6440
38.5	2,801,358	72,790	2.5984	97.4016	0.6263

39.5	2,665,078	61,542	2.3092	97.6908	0.6101
40.5	2,522,064	63,289	2.5094	97.4906	0.5960
41.5	2,342,196	45,456	1.9407	98.0593	0.5810
42.5	2,168,193	42,810	1.9745	98.0255	0.5697
43.5	1,973,092	38,317	1.9420	98.0580	0.5585
44.5	1,823,516	38,341	2.1026	97.8974	0.5476
45.5	1,677,475	39,618	2.3618	97.6382	0.5361
46.5	1,544,978	39,075	2.5292	97.4708	0.5235
47.5	1,430,668	29,195	2.0407	97.9593	0.5102
48.5	1,323,740	29,276	2.2116	97.7884	0.4998
49.5	1,238,142	25,675	2.0737	97.9263	0.4888
50.5	1,143,394	16,102	1.4083	98.5917	0.4786
51.5	1,045,327	12,602	1.2056	98.7944	0.4719
52.5	964,812	15,173	1.5726	98.4274	0.4662
53.5	883,080	12,953	1.4668	98.5332	0.4589
54.5	794,807	9,417	1.1848	98.8152	0.4521
55.5	711,235	8,511	1.1967	98.8033	0.4468
56.5	650,414	8,498	1.3066	98.6934	0.4414
57.5	587,620	6,373	1.0845	98.9155	0.4357
58.5	522,059	6,714	1.2861	98.7139	0.4309
59.5	457,884	5,043	1.1014	98.8986	0.4254
60.5	405,322	6,520	1.6086	98.3914	0.4207
61.5	348,597	4,845	1.3899	98.6101	0.4139
62.5	298,347	1,265	0.4240	99.5760	0.4082
63.5	256,190	854	0.3333	99.6667	0.4065
64.5	209,267	52	0.0248	99.9752	0.4051
65.5	166,002	120	0.0723	99.9277	0.4050
66.5	127,687	70	0.0548	99.9452	0.4047
67.5	113,447	284	0.2503	99.7497	0.4045
68.5	104,742	53	0.0506	99.9494	0.4035
69.5	96,665	395	0.4086	99.5914	0.4033
70.5	93,524	0	0.0000	100.0000	0.4016
71.5	89,734	2	0.0022	99.9978	0.4016
72.5	86,113	0	0.0000	100.0000	0.4016
73.5	81,128	267	0.3291	99.6709	0.4016
74.5	76,021	0	0.0000	100.0000	0.4003
75.5	67,645	0	0.0000	100.0000	0.4003
76.5	65,677	10	0.0152	99.9848	0.4003
77.5	61,450	0	0.0000	100.0000	0.4002
78.5	61,159	0	0.0000	100.0000	0.4002
79.5	61,130	0	0.0000	100.0000	0.4002
80.5	61,066	0	0.0000	100.0000	0.4002
81.5	61,066	0	0.0000	100.0000	0.4002
82.5	61,031	0	0.0000	100.0000	0.4002
83.5	60,856	581	0.9547	99.0453	0.4002
84.5	60,319	0	0.0000	100.0000	0.3964
85.5	60,284	35	0.0581	99.9419	0.3964

86.5	60,129	0	0.0000	100.0000	0.3962
87.5	59,905	53	0.0885	99.9115	0.3962
88.5	59,597	0	0.0000	100.0000	0.3958
89.5	53,514	0	0.0000	100.0000	0.3958
90.5	53,454	0	0.0000	100.0000	0.3958
91.5	53,405	0	0.0000	100.0000	0.3958
92.5	53,405	0	0.0000	100.0000	0.3958
93.5	53,395	0	0.0000	100.0000	0.3958
94.5	53,395	0	0.0000	100.0000	0.3958
95.5	53,352	459	0.8603	99.1397	0.3958
96.5	52,883	0	0.0000	100.0000	0.3924
97.5	52,873	0	0.0000	100.0000	0.3924
98.5	52,203	0	0.0000	100.0000	0.3924
99.5	51,966	260	0.5003	99.4997	0.3924
100.5	51,706	0	0.0000	100.0000	0.3905
101.5	44,714	681	1.5230	98.4770	0.3905
102.5	44,033	0	0.0000	100.0000	0.3845
103.5	43,815	210	0.4793	99.5207	0.3845
104.5	43,605	0	0.0000	100.0000	0.3827
105.5	43,605	0	0.0000	100.0000	0.3827
106.5	43,575	0	0.0000	100.0000	0.3827
107.5	36,846	0	0.0000	100.0000	0.3827
108.5	36,846	2,175	5.9029	94.0971	0.3827
109.5	34,671	0	0.0000	100.0000	0.3601
110.5	34,671	0	0.0000	100.0000	0.3601
111.5	34,671	0	0.0000	100.0000	0.3601
112.5	34,671	0	0.0000	100.0000	0.3601
113.5	34,671	0	0.0000	100.0000	0.3601

Best Fit Curve Results

Empire District Elec

Account: 370.00 -

Curve	Life	Sum of Squared Differences
BAND	1900 - 2014	
L0	58.0	453.860
L0.5	56.0	504.178
S-0.5	53.0	702.500
O2	60.0	996.951
R0.5	52.0	996.993
O1	53.0	1,016.423
L1	55.0	1,060.392
S0	52.0	1,282.761
R1	51.0	1,894.454
L1.5	54.0	2,413.292
S0.5	52.0	2,557.474
R1.5	51.0	3,671.333
S1	52.0	4,453.305
L2	53.0	4,531.787
R2	52.0	6,283.499
O3	60.0	6,615.951
S1.5	52.0	7,007.793
R2.5	52.0	9,921.402
S2	52.0	10,180.586
L3	52.0	11,107.335
R3	53.0	14,436.685
S3	53.0	17,816.735
O4	60.0	20,074.696
L4	52.0	21,585.089
R4	54.0	24,557.642
S4	53.0	29,538.493
L5	52.0	33,279.278
R5	54.0	38,726.025
S5	53.0	42,036.807
S6	51.0	52,800.685
SQ	48.0	72,669.985

Analytical Parameters

OLT Placement Band: 1900 - 2014

OLT Experience Band: 1900 - 2014

Minimum Life Parameter 4

Maximum Life Parameter 60

Life Increment Parameter 1

Max Age (T-Cut): 69.5



Analytical Parameters

OLT Placement Band:	1900 - 2014
OLT Experience Band:	1900 - 2014
Minimum Life Parameter:	4
Maximum Life Parameter:	60
Life Increment Parameter:	1
Max Age (T-Cut):	71.0

Empire District Elec

370.00 Gen Arm -

Calculation of Remaining Life
Based Upon Broad Group/Vintage Group Procedures
Related to Original Cost as of December 31, 2014

Survivor Curve .. IOWA: 53 S-0.5

<u>Year</u>	<u>Age</u>	<u>Surviving Investment</u>	<u>BG/VG Average</u>		<u>ASL Weights</u>	<u>RL Weights</u>
			<u>Service Life</u>	<u>Remaining Life</u>		
(1)	(2)	(3)	(4)	(5)	(6)=(3)/(4)	(7)=(6)*(5)
2014	0.5	69,880	53.00	52.63	1,318	69,392
2013	1.5	0	53.00	51.91	0	0
2012	2.5	0	53.00	51.20	0	0
2011	3.5	0	53.00	50.51	0	0
2010	4.5	0	53.00	49.83	0	0
2009	5.5	0	53.00	49.16	0	0
2008	6.5	1,437,053	53.00	48.51	27,114	1,315,253
2007	7.5	292,487	53.00	47.86	5,519	264,126
2006	8.5	876,395	53.00	47.22	16,536	780,866
2005	9.5	970,015	53.00	46.59	18,302	852,763
2004	10.5	819,882	53.00	45.97	15,469	711,166
2003	11.5	872,841	53.00	45.36	16,469	746,995
2002	12.5	889,242	53.00	44.75	16,778	750,852
2001	13.5	482,388	53.00	44.15	9,102	401,855
2000	14.5	484,523	53.00	43.56	9,142	398,209
1999	15.5	373,722	53.00	42.97	7,051	303,005
1998	16.5	505,741	53.00	42.39	9,542	404,494
1997	17.5	488,113	53.00	41.81	9,210	385,092
1996	18.5	515,575	53.00	41.24	9,728	401,211
1995	19.5	740,026	53.00	40.68	13,963	567,985
1994	20.5	610,607	53.00	40.12	11,521	462,201
1993	21.5	480,765	53.00	39.56	9,071	358,879
1992	22.5	422,459	53.00	39.01	7,971	310,966
1991	23.5	344,396	53.00	38.47	6,498	249,955
1990	24.5	338,230	53.00	37.92	6,382	242,021
1989	25.5	307,490	53.00	37.39	5,802	216,904
1988	26.5	369,482	53.00	36.85	6,971	256,911
1987	27.5	471,572	53.00	36.32	8,898	323,181
1986	28.5	327,554	53.00	35.80	6,180	221,229
1985	29.5	233,588	53.00	35.27	4,407	155,461

1984	30.5	223,616	53.00	34.75	4,219	146,634
1983	31.5	200,998	53.00	34.24	3,792	129,846
1982	32.5	158,050	53.00	33.73	2,982	100,573
1981	33.5	170,364	53.00	33.22	3,214	106,771
1980	34.5	572,995	53.00	32.71	10,811	353,633
1979	35.5	188,708	53.00	32.21	3,561	114,671
1978	36.5	158,744	53.00	31.71	2,995	94,964
1977	37.5	131,566	53.00	31.21	2,482	77,470
1976	38.5	103,857	53.00	30.71	1,960	60,184
1975	39.5	63,263	53.00	30.22	1,194	36,072
1974	40.5	79,964	53.00	29.73	1,509	44,855
1973	41.5	113,563	53.00	29.24	2,143	62,658
1972	42.5	127,373	53.00	28.76	2,403	69,111
1971	43.5	151,114	53.00	28.27	2,851	80,616
1970	44.5	110,642	53.00	27.79	2,088	58,022
1969	45.5	107,485	53.00	27.32	2,028	55,396
1968	46.5	92,826	53.00	26.84	1,751	47,006
1967	47.5	75,499	53.00	26.36	1,425	37,556
1966	48.5	82,332	53.00	25.89	1,553	40,221
1965	49.5	56,632	53.00	25.42	1,069	27,163
1964	50.5	69,720	53.00	24.95	1,315	32,824
1963	51.5	81,676	53.00	24.49	1,541	37,734
1962	52.5	66,253	53.00	24.02	1,250	30,027
1961	53.5	64,610	53.00	23.56	1,219	28,717
1960	54.5	74,641	53.00	23.10	1,408	32,525
1959	55.5	73,443	53.00	22.63	1,386	31,365
1958	56.5	52,080	53.00	22.18	983	21,791
1957	57.5	53,824	53.00	21.72	1,016	22,056
1956	58.5	58,162	53.00	21.26	1,097	23,333
1955	59.5	56,693	53.00	20.81	1,070	22,258
1954	60.5	45,671	53.00	20.35	862	17,540
1953	61.5	48,722	53.00	19.90	919	18,296
1952	62.5	43,842	53.00	19.45	827	16,091
1951	63.5	39,648	53.00	19.00	748	14,215
1950	64.5	44,412	53.00	18.55	838	15,547
1949	65.5	41,454	53.00	18.11	782	14,161
1948	66.5	36,071	53.00	17.66	681	12,019
1947	67.5	13,126	53.00	17.21	248	4,263
1946	68.5	7,736	53.00	16.77	146	2,448
1945	69.5	7,129	53.00	16.33	135	2,196
1944	70.5	2,689	53.00	15.88	51	806
1943	71.5	3,792	53.00	15.44	72	1,105
1942	72.5	3,619	53.00	15.00	68	1,024
1941	73.5	4,757	53.00	14.56	90	1,307
1940	74.5	4,726	53.00	14.12	89	1,259
1939	75.5	8,377	53.00	13.68	158	2,162
1938	76.5	1,968	53.00	13.24	37	492

1937	77.5	4,217	53.00	12.80	80	1,018
1936	78.5	271	53.00	12.36	5	63
1935	79.5	29	53.00	11.92	1	7
1934	80.5	64	53.00	11.48	1	14
1933	81.5	0	53.00	11.05	0	0
1932	82.5	35	53.00	10.61	1	7
1931	83.5	251	53.00	10.17	5	48
1930	84.5	32	53.00	9.73	1	6
1929	85.5	29	53.00	9.29	1	5
1928	86.5	116	53.00	8.86	2	19
1927	87.5	224	53.00	8.42	4	36
1926	88.5	231	53.00	7.98	4	35
1925	89.5	6,082	53.00	7.54	115	865
1924	90.5	60	53.00	7.10	1	8
1923	91.5	49	53.00	6.66	1	6
1922	92.5	0	53.00	6.22	0	0
1921	93.5	10	53.00	5.77	0	1
1920	94.5	0	53.00	5.33	0	0
1919	95.5	43	53.00	4.89	1	4
1918	96.5	10	53.00	4.44	0	1
1917	97.5	10	53.00	3.99	0	1
1916	98.5	670	53.00	3.54	13	45
1915	99.5	237	53.00	3.09	4	14
1914	100.5	0	53.00	2.63	0	0
1913	101.5	6,840	53.00	2.18	129	281
1912	102.5	0	53.00	1.72	0	0
1911	103.5	218	53.00	1.26	4	5
1910	104.5	0	53.00	0.82	0	0
1909	105.5	0	53.00	0.50	0	0
1908	106.5	30	53.00	0.50	1	0
1907	107.5	6,729	53.00	0.50	127	63
1906	108.5	0	53.00	0.50	0	0
1905	109.5	0	53.00	0.50	0	0
1904	110.5	0	53.00	0.50	0	0
1903	111.5	0	53.00	0.50	0	0
1902	112.5	0	53.00	0.50	0	0
1901	113.5	0	53.00	0.50	0	0
1900	114.5	34,672	53.00	0.50	654	327

17,763,617

335,163 13,304,833

AVERAGE SERVICE LIFE	53.00
AVERAGE REMAINING LIFE	39.70

Observed Life Table Results**Empire District Elec****Account: 371.00 -**

Age	Exposures	Retirements	Retirement Ratio (%)	Survivor Ratio (%)	Cumulative Survivors
BAND		1926 - 2014			
0	18,890,583	115,152	0.6096	99.3904	1.0000
0.5	18,812,955	37,573	0.1997	99.8003	0.9939
1.5	18,785,587	42,007	0.2236	99.7764	0.9919
2.5	18,804,249	48,527	0.2581	99.7419	0.9897
3.5	18,755,722	69,341	0.3697	99.6303	0.9871
4.5	18,690,535	79,705	0.4264	99.5736	0.9835
5.5	18,174,964	182,059	1.0017	98.9983	0.9793
6.5	17,282,091	120,708	0.6985	99.3015	0.9695
7.5	16,221,895	162,046	0.9989	99.0011	0.9627
8.5	15,514,291	176,364	1.1368	98.8632	0.9531
9.5	14,750,875	207,952	1.4098	98.5902	0.9423
10.5	13,970,824	241,170	1.7262	98.2738	0.9290
11.5	13,011,783	194,159	1.4922	98.5078	0.9130
12.5	12,268,226	185,995	1.5161	98.4839	0.8993
13.5	11,212,048	251,433	2.2425	97.7575	0.8857
14.5	10,250,672	181,224	1.7679	98.2321	0.8658
15.5	9,184,334	209,378	2.2797	97.7203	0.8505
16.5	8,077,392	127,283	1.5758	98.4242	0.8311
17.5	7,208,556	188,928	2.6209	97.3791	0.8180
18.5	6,325,812	97,807	1.5462	98.4538	0.7966
19.5	5,649,458	86,034	1.5229	98.4771	0.7843
20.5	4,902,411	114,081	2.3270	97.6730	0.7723
21.5	4,277,767	104,375	2.4399	97.5601	0.7544
22.5	3,702,150	83,707	2.2610	97.7390	0.7360
23.5	3,210,032	56,942	1.7739	98.2261	0.7193
24.5	2,894,089	65,297	2.2562	97.7438	0.7066
25.5	2,471,020	30,345	1.2280	98.7720	0.6906
26.5	2,250,375	61,599	2.7373	97.2627	0.6821
27.5	1,942,916	41,331	2.1273	97.8727	0.6635
28.5	1,559,372	20,233	1.2975	98.7025	0.6494
29.5	1,287,773	19,671	1.5275	98.4725	0.6409
30.5	1,125,052	3,775	0.3355	99.6645	0.6311
31.5	983,086	13,080	1.3305	98.6695	0.6290
32.5	864,729	5,148	0.5953	99.4047	0.6206
33.5	761,934	2,494	0.3273	99.6727	0.6170
34.5	648,406	2,374	0.3661	99.6339	0.6149
35.5	484,533	2,237	0.4617	99.5383	0.6127
36.5	421,649	1,117	0.2649	99.7351	0.6099
37.5	403,238	5,552	1.3769	98.6231	0.6082
38.5	392,991	4,961	1.2624	98.7376	0.5999

39.5	358,484	2,533	0.7066	99.2934	0.5923
40.5	334,618	20,827	6.2241	93.7759	0.5881
41.5	312,485	16	0.0051	99.9949	0.5515
42.5	25,412	0	0.0000	100.0000	0.5515
43.5	13,239	0	0.0000	100.0000	0.5515
44.5	11,632	91	0.7823	99.2177	0.5515
45.5	11,541	0	0.0000	100.0000	0.5472
46.5	11,541	0	0.0000	100.0000	0.5472
47.5	11,632	91	0.7823	99.2177	0.5472
48.5	10,470	0	0.0000	100.0000	0.5429
49.5	10,470	0	0.0000	100.0000	0.5429
50.5	10,470	0	0.0000	100.0000	0.5429
51.5	10,470	138	1.3181	98.6819	0.5429
52.5	10,423	0	0.0000	100.0000	0.5357
53.5	10,423	91	0.8731	99.1269	0.5357
54.5	10,332	0	0.0000	100.0000	0.5310
55.5	12,207	1,875	15.3600	84.6400	0.5310
56.5	10,577	977	9.2370	90.7630	0.4495
57.5	9,600	0	0.0000	100.0000	0.4080
58.5	11,064	732	6.6161	93.3839	0.4080
59.5	10,332	0	0.0000	100.0000	0.3810
60.5	10,332	0	0.0000	100.0000	0.3810
61.5	916	0	0.0000	100.0000	0.3810
62.5	916	0	0.0000	100.0000	0.3810
63.5	916	0	0.0000	100.0000	0.3810
64.5	916	0	0.0000	100.0000	0.3810
65.5	916	0	0.0000	100.0000	0.3810
66.5	916	0	0.0000	100.0000	0.3810
67.5	916	0	0.0000	100.0000	0.3810
68.5	916	0	0.0000	100.0000	0.3810
69.5	916	0	0.0000	100.0000	0.3810
70.5	916	0	0.0000	100.0000	0.3810
71.5	916	0	0.0000	100.0000	0.3810
72.5	916	0	0.0000	100.0000	0.3810
73.5	916	0	0.0000	100.0000	0.3810
74.5	916	0	0.0000	100.0000	0.3810
75.5	916	0	0.0000	100.0000	0.3810
76.5	825	0	0.0000	100.0000	0.3810
77.5	825	0	0.0000	100.0000	0.3810
78.5	825	0	0.0000	100.0000	0.3810
79.5	825	0	0.0000	100.0000	0.3810
80.5	825	0	0.0000	100.0000	0.3810
81.5	825	0	0.0000	100.0000	0.3810
82.5	825	0	0.0000	100.0000	0.3810
83.5	0	0	0.0000	100.0000	0.3810
84.5	0	0	0.0000	100.0000	0.3810
85.5	0	0	0.0000	100.0000	0.3810

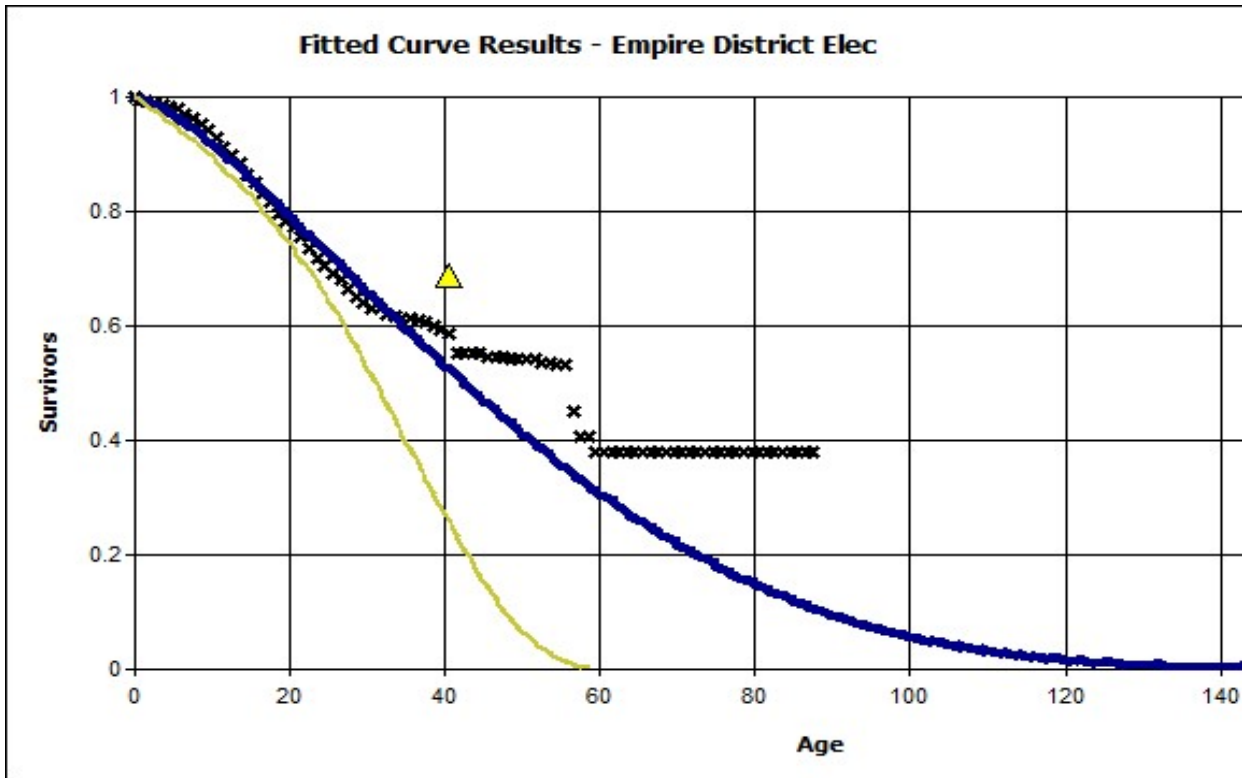
86.5	0	0	0.0000	100.0000	0.3810
87.5	0	0	0.0000	100.0000	0.3810

Best Fit Curve Results
Empire District Elec
Account: 371.00 -

Curve	Life	Sum of Squared Differences
BAND	1926 - 2014	
L0	47.0	234.140
O2	51.0	312.546
O1	45.0	315.996
S-0.5	42.0	320.323
R0.5	41.0	359.333
L0.5	44.0	449.120
R1	39.0	636.193
S0	40.0	673.236
L1	42.0	877.191
O3	60.0	1,058.362
R1.5	38.0	1,223.205
S0.5	39.0	1,263.200
L1.5	41.0	1,710.801
S1	38.0	2,125.964
R2	37.0	2,153.240
L2	40.0	2,945.016
S1.5	38.0	3,202.066
R2.5	37.0	3,432.954
S2	37.0	4,534.141
R3	37.0	5,081.283
L3	38.0	6,013.957
O4	60.0	6,313.895
S3	37.0	7,531.353
R4	37.0	8,629.306
L4	38.0	9,744.255
S4	37.0	11,841.724
L5	38.0	13,870.249
R5	38.0	14,014.979
S5	38.0	16,110.193
S6	39.0	19,950.524
SQ	41.0	28,076.023

Analytical Parameters

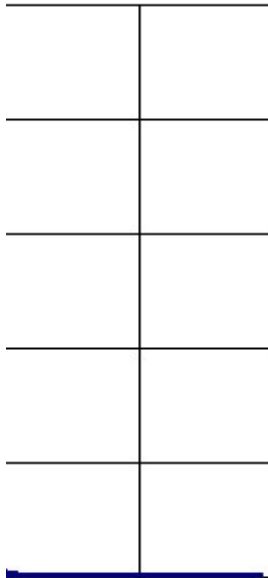
OLT Placement Band: 1926 - 2014
 OLT Experience Band: 1926 - 2014
 Minimum Life Parameter 5
 Maximum Life Paramete 60
 Life Increment Paramete 1
 Max Age (T-Cut): 40.5



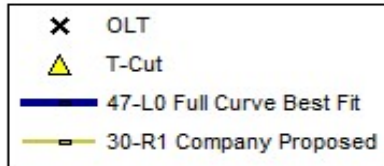
Analytical Parameters

OLT Placement Band:	1926 - 2014
OLT Experience Band:	1926 - 2014
Minimum Life Parameter:	5
Maximum Life Parameter:	60
Life Increment Parameter:	1
Max Age (T-Cut):	42.0

Account: 371.00 -



160



Empire District Elec

371.00 Gen Arm -

Calculation of Remaining Life
Based Upon Broad Group/Vintage Group Procedures
Related to Original Cost as of December 31, 2014

Survivor Curve .. IOWA: 45 O1

<u>Year</u>	<u>Age</u>	<u>Surviving Investment</u>	<u>BG/VG Average</u>		<u>ASL Weights</u>	<u>RL Weights</u>
			<u>Service Life</u>	<u>Remaining Life</u>		
(1)	(2)	(3)	(4)	(5)	(6)=(3)/(4)	(7)=(6)*(5)
2014	0.5	0	45.00	44.75	0	0
2013	1.5	0	45.00	44.25	0	0
2012	2.5	0	45.00	43.75	0	0
2011	3.5	0	45.00	43.25	0	0
2010	4.5	0	45.00	42.75	0	0
2009	5.5	435,866	45.00	42.25	9,686	409,253
2008	6.5	711,746	45.00	41.75	15,817	660,380
2007	7.5	1,045,911	45.00	41.25	23,242	958,808
2006	8.5	545,558	45.00	40.75	12,124	494,063
2005	9.5	587,051	45.00	40.25	13,046	525,117
2004	10.5	583,034	45.00	39.75	12,956	515,046
2003	11.5	731,093	45.00	39.25	16,247	637,717
2002	12.5	557,562	45.00	38.75	12,390	480,155
2001	13.5	876,379	45.00	38.25	19,475	744,973
2000	14.5	718,372	45.00	37.75	15,964	602,677
1999	15.5	888,161	45.00	37.25	19,737	735,253
1998	16.5	901,494	45.00	36.75	20,033	736,275
1997	17.5	756,099	45.00	36.25	16,802	609,126
1996	18.5	737,540	45.00	35.75	16,390	585,980
1995	19.5	593,590	45.00	35.25	13,191	465,016
1994	20.5	675,131	45.00	34.75	15,003	521,394
1993	21.5	516,947	45.00	34.25	11,488	393,488
1992	22.5	493,967	45.00	33.75	10,977	370,508
1991	23.5	426,883	45.00	33.25	9,486	315,448
1990	24.5	294,582	45.00	32.75	6,546	214,410
1989	25.5	357,307	45.00	32.25	7,940	256,095
1988	26.5	203,480	45.00	31.75	4,522	143,581
1987	27.5	248,737	45.00	31.25	5,527	172,752
1986	28.5	342,570	45.00	30.75	7,613	234,114
1985	29.5	256,924	45.00	30.25	5,709	172,729

1984	30.5	137,766	45.00	29.75	3,061	91,089
1983	31.5	137,118	45.00	29.25	3,047	89,137
1982	32.5	105,278	45.00	28.75	2,340	67,269
1981	33.5	99,439	45.00	28.25	2,210	62,433
1980	34.5	101,283	45.00	27.75	2,251	62,466
1979	35.5	76,640	45.00	27.25	1,703	46,416
1978	36.5	58,834	45.00	26.75	1,307	34,978
1977	37.5	16,407	45.00	26.25	365	9,572
1976	38.5	5,942	45.00	25.75	132	3,401
1975	39.5	11,969	45.00	25.25	266	6,717
1974	40.5	9,382	45.00	24.75	208	5,161
1973	41.5	1,324	45.00	24.25	29	714
1972	42.5	285,035	45.00	23.75	6,334	150,462
1971	43.5	12,173	45.00	23.25	271	6,291
1970	44.5	1,697	45.00	22.75	38	858
1969	45.5	0	45.00	22.25	0	0
1968	46.5	0	45.00	21.75	0	0
1967	47.5	0	45.00	21.25	0	0
1966	48.5	1,071	45.00	20.75	24	494
1965	49.5	0	45.00	20.25	0	0
1964	50.5	0	45.00	19.75	0	0
1963	51.5	0	45.00	19.25	0	0
1962	52.5	0	45.00	18.75	0	0
1961	53.5	0	45.00	18.26	0	0
1960	54.5	0	45.00	17.76	0	0
1959	55.5	0	45.00	17.26	0	0
1958	56.5	0	45.00	16.76	0	0
1957	57.5	0	45.00	16.26	0	0
1956	58.5	0	45.00	15.76	0	0
1955	59.5	0	45.00	15.26	0	0
1954	60.5	0	45.00	14.76	0	0
1953	61.5	0	45.00	14.26	0	0
1952	62.5	0	45.00	13.76	0	0
1951	63.5	0	45.00	13.26	0	0
1950	64.5	0	45.00	12.76	0	0
1949	65.5	0	45.00	12.26	0	0
1948	66.5	0	45.00	11.76	0	0
1947	67.5	0	45.00	11.26	0	0
1946	68.5	0	45.00	10.76	0	0
1945	69.5	0	45.00	10.26	0	0
1944	70.5	0	45.00	9.76	0	0
1943	71.5	0	45.00	9.26	0	0
1942	72.5	0	45.00	8.76	0	0
1941	73.5	0	45.00	8.26	0	0
1940	74.5	0	45.00	7.76	0	0
1939	75.5	0	45.00	7.26	0	0
1938	76.5	91	45.00	6.76	2	14

1937	77.5	0	45.00	6.26	0	0
1936	78.5	0	45.00	5.76	0	0
1935	79.5	0	45.00	5.26	0	0
1934	80.5	0	45.00	4.76	0	0
1933	81.5	0	45.00	4.27	0	0
1932	82.5	0	45.00	3.77	0	0
1931	83.5	825	45.00	3.27	18	60
1930	84.5	0	45.00	2.77	0	0
1929	85.5	0	45.00	2.28	0	0
1928	86.5	0	45.00	1.79	0	0
1927	87.5	0	45.00	1.30	0	0
1926	88.5	0	45.00	0.83	0	0

15,548,258

345,517 12,591,889

AVERAGE SERVICE LIFE	45.00
AVERAGE REMAINING LIFE	36.44

Observed Life Table Results**Empire District Elec****Account: 373.00 -**

Age	Exposures	Retirements	Retirement Ratio (%)	Survivor Ratio (%)	Cumulative Survivors
BAND		1900 - 2014			
0	16,968,238	421,529	2.4842	97.5158	1.0000
0.5	16,525,338	13,301	0.0805	99.9195	0.9752
1.5	16,521,204	26,854	0.1625	99.8375	0.9744
2.5	16,495,519	28,584	0.1733	99.8267	0.9728
3.5	16,467,454	78,856	0.4789	99.5211	0.9711
4.5	16,394,168	63,329	0.3863	99.6137	0.9665
5.5	15,345,038	152,438	0.9934	99.0066	0.9627
6.5	14,403,072	141,017	0.9791	99.0209	0.9532
7.5	13,434,012	115,785	0.8619	99.1381	0.9438
8.5	12,825,716	106,679	0.8318	99.1682	0.9357
9.5	12,173,159	170,275	1.3988	98.6012	0.9279
10.5	11,468,119	94,166	0.8211	99.1789	0.9149
11.5	10,568,253	74,395	0.7039	99.2961	0.9074
12.5	9,943,943	67,231	0.6761	99.3239	0.9010
13.5	9,455,227	70,237	0.7428	99.2572	0.8949
14.5	9,056,742	109,783	1.2122	98.7878	0.8883
15.5	8,466,327	65,166	0.7697	99.2303	0.8775
16.5	7,843,579	40,149	0.5119	99.4881	0.8708
17.5	7,279,363	52,421	0.7201	99.2799	0.8663
18.5	6,986,797	71,008	1.0163	98.9837	0.8601
19.5	6,384,985	38,779	0.6073	99.3927	0.8513
20.5	5,637,525	43,145	0.7653	99.2347	0.8462
21.5	5,327,484	39,619	0.7437	99.2563	0.8397
22.5	4,953,537	24,808	0.5008	99.4992	0.8334
23.5	4,553,370	25,992	0.5708	99.4292	0.8293
24.5	4,194,649	46,004	1.0967	98.9033	0.8245
25.5	3,916,606	26,418	0.6745	99.3255	0.8155
26.5	3,723,995	47,159	1.2664	98.7336	0.8100
27.5	3,484,775	17,761	0.5097	99.4903	0.7997
28.5	3,335,856	25,937	0.7775	99.2225	0.7957
29.5	3,057,912	25,750	0.8421	99.1579	0.7895
30.5	2,905,291	37,051	1.2753	98.7247	0.7828
31.5	2,772,408	41,251	1.4879	98.5121	0.7728
32.5	2,602,782	17,403	0.6686	99.3314	0.7613
33.5	2,444,766	27,251	1.1147	98.8853	0.7562
34.5	2,253,825	30,118	1.3363	98.6637	0.7478
35.5	2,125,852	23,285	1.0953	98.9047	0.7378
36.5	1,989,732	41,946	2.1081	97.8919	0.7297
37.5	1,864,574	17,078	0.9159	99.0841	0.7144
38.5	1,809,981	21,238	1.1734	98.8266	0.7078

39.5	1,697,729	13,804	0.8131	99.1869	0.6995
40.5	1,637,568	23,656	1.4446	98.5554	0.6938
41.5	1,502,431	13,233	0.8808	99.1192	0.6838
42.5	1,411,708	28,781	2.0387	97.9613	0.6778
43.5	1,263,818	54,456	4.3088	95.6912	0.6640
44.5	1,103,480	26,743	2.4235	97.5765	0.6353
45.5	1,022,898	18,052	1.7648	98.2352	0.6200
46.5	965,544	8,865	0.9181	99.0819	0.6090
47.5	886,883	7,487	0.8442	99.1558	0.6034
48.5	811,630	1,350	0.1663	99.8337	0.5983
49.5	671,349	5,104	0.7603	99.2397	0.5973
50.5	412,657	3,495	0.8470	99.1530	0.5928
51.5	389,420	13,109	3.3663	96.6337	0.5878
52.5	360,532	3,676	1.0196	98.9804	0.5680
53.5	337,862	6,391	1.8916	98.1084	0.5622
54.5	294,463	2,458	0.8347	99.1653	0.5516
55.5	237,497	2,849	1.1996	98.8004	0.5470
56.5	189,791	793	0.4178	99.5822	0.5404
57.5	169,034	48	0.0284	99.9716	0.5381
58.5	158,910	95	0.0598	99.9402	0.5380
59.5	146,473	58	0.0396	99.9604	0.5377
60.5	114,403	141	0.1232	99.8768	0.5374
61.5	95,475	0	0.0000	100.0000	0.5368
62.5	66,276	0	0.0000	100.0000	0.5368
63.5	62,074	0	0.0000	100.0000	0.5368
64.5	57,337	0	0.0000	100.0000	0.5368
65.5	49,817	0	0.0000	100.0000	0.5368
66.5	43,334	9	0.0208	99.9792	0.5368
67.5	37,088	0	0.0000	100.0000	0.5367
68.5	33,133	16	0.0483	99.9517	0.5367
69.5	32,078	0	0.0000	100.0000	0.5364
70.5	31,309	0	0.0000	100.0000	0.5364
71.5	30,711	0	0.0000	100.0000	0.5364
72.5	29,890	0	0.0000	100.0000	0.5364
73.5	27,305	0	0.0000	100.0000	0.5364
74.5	24,422	0	0.0000	100.0000	0.5364
75.5	22,268	0	0.0000	100.0000	0.5364
76.5	19,681	0	0.0000	100.0000	0.5364
77.5	18,623	0	0.0000	100.0000	0.5364
78.5	18,623	0	0.0000	100.0000	0.5364
79.5	18,623	0	0.0000	100.0000	0.5364
80.5	18,623	0	0.0000	100.0000	0.5364
81.5	18,623	0	0.0000	100.0000	0.5364
82.5	18,623	0	0.0000	100.0000	0.5364
83.5	18,623	0	0.0000	100.0000	0.5364
84.5	18,623	0	0.0000	100.0000	0.5364
85.5	18,623	0	0.0000	100.0000	0.5364

86.5	18,623	0	0.0000	100.0000	0.5364
87.5	18,623	0	0.0000	100.0000	0.5364
88.5	18,623	0	0.0000	100.0000	0.5364
89.5	18,623	0	0.0000	100.0000	0.5364
90.5	18,623	0	0.0000	100.0000	0.5364
91.5	18,623	0	0.0000	100.0000	0.5364
92.5	18,623	0	0.0000	100.0000	0.5364
93.5	18,623	0	0.0000	100.0000	0.5364
94.5	18,623	0	0.0000	100.0000	0.5364
95.5	18,623	0	0.0000	100.0000	0.5364
96.5	18,623	0	0.0000	100.0000	0.5364
97.5	18,623	0	0.0000	100.0000	0.5364
98.5	18,623	8	0.0430	99.9570	0.5364
99.5	18,615	147	0.7897	99.2103	0.5362
100.5	18,468	264	1.4295	98.5705	0.5319
101.5	18,204	66	0.3626	99.6374	0.5243
102.5	18,138	0	0.0000	100.0000	0.5224
103.5	18,138	70	0.3859	99.6141	0.5224
104.5	18,068	54	0.2989	99.7011	0.5204
105.5	18,014	16	0.0888	99.9112	0.5189
106.5	17,998	0	0.0000	100.0000	0.5184
107.5	17,998	23	0.1278	99.8722	0.5184
108.5	17,975	184	1.0236	98.9764	0.5177
109.5	17,791	0	0.0000	100.0000	0.5124
110.5	17,791	0	0.0000	100.0000	0.5124
111.5	17,791	0	0.0000	100.0000	0.5124
112.5	17,791	0	0.0000	100.0000	0.5124
113.5	17,791	0	0.0000	100.0000	0.5124

Best Fit Curve Results

Empire District Elec

Account: 373.00 -

Curve	Life	Sum of Squared Differences
BAND	1900 - 2014	
R0.5	58.0	51.491
S-0.5	59.0	112.833
O1	60.0	244.240
R1	54.0	254.835
L0.5	60.0	487.139
S0	56.0	592.368
L0	60.0	703.452
R1.5	52.0	813.573
L1	59.0	971.789
S0.5	54.0	1,209.481
O2	60.0	1,460.599
L1.5	57.0	1,785.940
R2	51.0	1,836.869
S1	53.0	2,198.248
L2	55.0	3,147.913
R2.5	50.0	3,194.822
S1.5	52.0	3,277.934
S2	51.0	4,749.655
R3	50.0	5,012.087
L3	53.0	6,273.989
S3	51.0	7,892.053
R4	50.0	9,021.785
L4	52.0	10,241.234
O3	60.0	10,730.437
S4	51.0	12,553.301
L5	52.0	14,977.219
R5	51.0	15,170.294
S5	52.0	17,722.012
S6	52.0	22,951.765
O4	60.0	25,966.724
SQ	56.0	36,135.454

Analytical Parameters

OLT Placement Band: 1900 - 2014

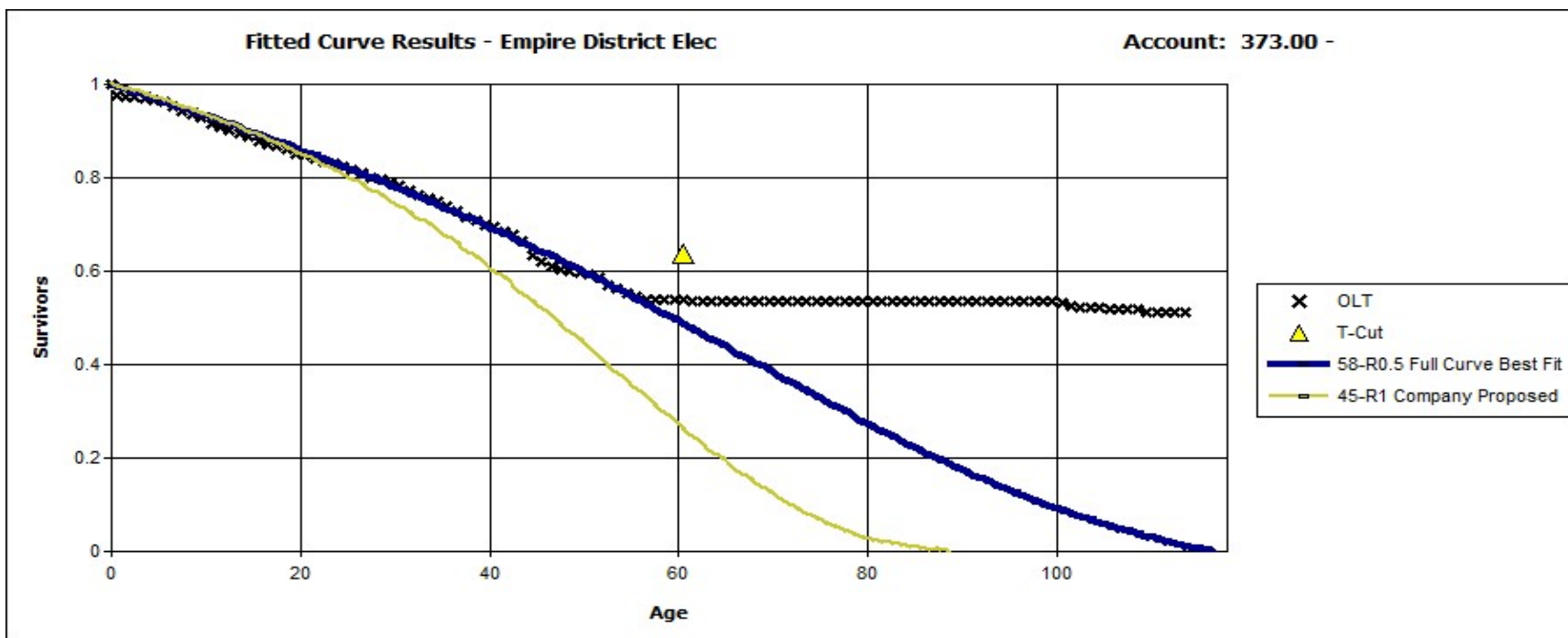
OLT Experience Band: 1900 - 2014

Minimum Life Parameter 1

Maximum Life Paramete 60

Life Increment Paramete 1

Max Age (T-Cut): 55.5



Analytical Parameters

OLT Placement Band:	1900 - 2014
OLT Experience Band:	1900 - 2014
Minimum Life Parameter:	1
Maximum Life Parameter:	60
Life Increment Parameter:	1
Max Age (T-Cut):	62.0

Empire District Elec

373.00 Gen Arm -

Calculation of Remaining Life
Based Upon Broad Group/Vintage Group Procedures
Related to Original Cost as of December 31, 2014

Survivor Curve .. IOWA: 58 R0.5

<u>Year</u>	<u>Age</u>	<u>Surviving Investment</u>	<u>BG/VG Average</u>		<u>ASL Weights</u>	<u>RL Weights</u>
			<u>Service Life</u>	<u>Remaining Life</u>		
(1)	(2)	(3)	(4)	(5)	(6)=(3)/(4)	(7)=(6)*(5)
2014	0.5	33,772	58.00	57.69	582	33,591
2013	1.5	11,971	58.00	57.07	206	11,779
2012	2.5	0	58.00	56.45	0	0
2011	3.5	0	58.00	55.83	0	0
2010	4.5	0	58.00	55.22	0	0
2009	5.5	985,801	58.00	54.60	16,997	928,072
2008	6.5	789,751	58.00	53.99	13,616	735,157
2007	7.5	828,261	58.00	53.38	14,280	762,272
2006	8.5	494,951	58.00	52.77	8,534	450,312
2005	9.5	551,520	58.00	52.16	9,509	495,991
2004	10.5	534,765	58.00	51.55	9,220	475,322
2003	11.5	805,700	58.00	50.95	13,891	707,721
2002	12.5	550,262	58.00	50.34	9,487	477,608
2001	13.5	423,142	58.00	49.74	7,296	362,869
2000	14.5	328,249	58.00	49.14	5,659	278,083
1999	15.5	483,899	58.00	48.53	8,343	404,929
1998	16.5	566,201	58.00	47.93	9,762	467,941
1997	17.5	524,140	58.00	47.34	9,037	427,765
1996	18.5	243,402	58.00	46.74	4,197	196,137
1995	19.5	530,492	58.00	46.14	9,146	422,020
1994	20.5	708,680	58.00	45.54	12,219	556,494
1993	21.5	267,143	58.00	44.95	4,606	207,036
1992	22.5	334,367	58.00	44.36	5,765	255,715
1991	23.5	376,534	58.00	43.77	6,492	284,122
1990	24.5	322,760	58.00	43.18	5,565	240,261
1989	25.5	227,835	58.00	42.59	3,928	167,287
1988	26.5	165,115	58.00	42.00	2,847	119,565
1987	27.5	192,078	58.00	41.41	3,312	137,153
1986	28.5	129,236	58.00	40.83	2,228	90,982
1985	29.5	228,544	58.00	40.25	3,940	158,607

1984	30.5	131,926	58.00	39.67	2,275	90,239
1983	31.5	96,267	58.00	39.10	1,660	64,892
1982	32.5	131,953	58.00	38.52	2,275	87,643
1981	33.5	117,964	58.00	37.95	2,034	77,191
1980	34.5	165,924	58.00	37.38	2,861	106,949
1979	35.5	97,855	58.00	36.82	1,687	62,120
1978	36.5	112,836	58.00	36.26	1,945	70,537
1977	37.5	83,401	58.00	35.70	1,438	51,333
1976	38.5	37,515	58.00	35.14	647	22,731
1975	39.5	91,014	58.00	34.59	1,569	54,279
1974	40.5	47,190	58.00	34.04	814	27,697
1973	41.5	111,563	58.00	33.50	1,924	64,429
1972	42.5	77,490	58.00	32.95	1,336	44,027
1971	43.5	119,381	58.00	32.42	2,058	66,720
1970	44.5	105,882	58.00	31.88	1,826	58,200
1969	45.5	53,840	58.00	31.35	928	29,101
1968	46.5	39,302	58.00	30.82	678	20,886
1967	47.5	69,796	58.00	30.30	1,203	36,461
1966	48.5	67,137	58.00	29.78	1,158	34,471
1965	49.5	129,848	58.00	29.26	2,239	65,516
1964	50.5	253,587	58.00	28.75	4,372	125,713
1963	51.5	15,416	58.00	28.25	266	7,507
1962	52.5	16,657	58.00	27.74	287	7,967
1961	53.5	19,306	58.00	27.24	333	9,068
1960	54.5	37,449	58.00	26.75	646	17,270
1959	55.5	55,798	58.00	26.26	962	25,259
1958	56.5	51,207	58.00	25.77	883	22,750
1957	57.5	21,902	58.00	25.28	378	9,548
1956	58.5	10,553	58.00	24.80	182	4,513
1955	59.5	14,181	58.00	24.33	245	5,948
1954	60.5	32,739	58.00	23.86	564	13,467
1953	61.5	18,788	58.00	23.39	324	7,577
1952	62.5	29,198	58.00	22.93	503	11,541
1951	63.5	4,202	58.00	22.47	72	1,628
1950	64.5	4,737	58.00	22.01	82	1,798
1949	65.5	7,520	58.00	21.56	130	2,795
1948	66.5	6,482	58.00	21.11	112	2,359
1947	67.5	6,238	58.00	20.66	108	2,222
1946	68.5	3,955	58.00	20.22	68	1,379
1945	69.5	1,039	58.00	19.78	18	354
1944	70.5	769	58.00	19.35	13	257
1943	71.5	598	58.00	18.92	10	195
1942	72.5	821	58.00	18.49	14	262
1941	73.5	2,585	58.00	18.06	45	805
1940	74.5	2,883	58.00	17.64	50	877
1939	75.5	2,154	58.00	17.22	37	640
1938	76.5	2,587	58.00	16.80	45	749

1937	77.5	1,058	58.00	16.39	18	299
1936	78.5	0	58.00	15.98	0	0
1935	79.5	0	58.00	15.57	0	0
1934	80.5	0	58.00	15.16	0	0
1933	81.5	0	58.00	14.76	0	0
1932	82.5	0	58.00	14.35	0	0
1931	83.5	0	58.00	13.95	0	0
1930	84.5	0	58.00	13.55	0	0
1929	85.5	0	58.00	13.15	0	0
1928	86.5	0	58.00	12.76	0	0
1927	87.5	0	58.00	12.36	0	0
1926	88.5	0	58.00	11.96	0	0
1925	89.5	0	58.00	11.57	0	0
1924	90.5	0	58.00	11.17	0	0
1923	91.5	0	58.00	10.78	0	0
1922	92.5	0	58.00	10.38	0	0
1921	93.5	0	58.00	9.98	0	0
1920	94.5	0	58.00	9.58	0	0
1919	95.5	0	58.00	9.18	0	0
1918	96.5	0	58.00	8.78	0	0
1917	97.5	0	58.00	8.38	0	0
1916	98.5	0	58.00	7.97	0	0
1915	99.5	0	58.00	7.56	0	0
1914	100.5	0	58.00	7.14	0	0
1913	101.5	0	58.00	6.72	0	0
1912	102.5	0	58.00	6.30	0	0
1911	103.5	0	58.00	5.87	0	0
1910	104.5	0	58.00	5.43	0	0
1909	105.5	0	58.00	4.99	0	0
1908	106.5	0	58.00	4.54	0	0
1907	107.5	0	58.00	4.09	0	0
1906	108.5	0	58.00	3.63	0	0
1905	109.5	0	58.00	3.17	0	0
1904	110.5	0	58.00	2.70	0	0
1903	111.5	0	58.00	2.23	0	0
1902	112.5	0	58.00	1.76	0	0
1901	113.5	0	58.00	1.29	0	0
1900	114.5	17,793	58.00	0.83	307	255

14,168,857

244,291 11,275,213

AVERAGE SERVICE LIFE	58.00
AVERAGE REMAINING LIFE	46.15

Summary by Plant
 The Empire District Electric Company
State Line Combustion Turbine

Account	Description	Direct Investment 2014\$	Depreciation Rate
341	Structures & Improvements	1,103,839	0.00%
342	Fuel Holders, Producers & Accessories	3,230,198	1.49%
343	Prime Movers	27,377,664	2.01%
344	Generators	7,178,571	1.41%
345	Accessory Electric Equipment	2,896,245	1.78%
346	Misc Power Equipment	1,041,157	2.91%
Total		42,827,674	1.82% remaining life weighted average rate

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, State Line Combustion Turbine	Install Date	1995
	Retirement Date	2040
	Service Life, Yrs	45

**Historical and Forecast Plant Additions & Balances
Account: 341 Structures & Improvements**

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	1995	45	2,072,573	-	-	(1,025,088)	-	2,072,573	-	-	2,072,573
2	1996	44	-	-	-	-	-	-	-	-	2,072,573
3	1997	43	582,614	-	-	(532,896)	-	582,614	-	-	2,655,187
4	1998	42	-	-	-	-	-	-	-	-	2,655,187
5	1999	41	-	-	-	-	-	-	-	-	2,655,187
6	2000	40	-	5,958	-	-	-	5,958	-	-	2,661,145
7	2001	39	-	678	(1,557,829)	-	-	678	(1,557,829)	-	1,103,994
8	2002	38	-	-	-	-	-	-	-	-	1,103,994
9	2003	37	-	-	-	-	-	-	-	-	1,103,994
10	2004	36	-	-	-	-	-	-	-	-	1,103,994
11	2005	35	-	-	-	-	-	-	-	-	1,103,994
12	2006	34	-	-	-	-	-	-	-	-	1,103,994
13	2007	33	-	-	-	-	-	-	-	-	1,103,994
14	2008	32	-	-	-	-	-	-	-	-	1,103,994
15	2009	31	-	-	(155)	-	-	-	(155)	-	1,103,839
16	2010	30	-	-	-	-	-	-	-	-	1,103,839
17	2011	29	-	-	-	-	-	-	-	-	1,103,839
18	2012	28	-	-	-	-	-	-	-	-	1,103,839
19	2013	27	-	-	-	-	-	-	-	-	1,103,839
20	2014	26	-	-	-	-	-	-	-	-	1,103,839
21	Total		\$ 2,655,187	\$ 6,636	\$ (1,557,984)	\$ (1,557,984)	\$ -	\$ 2,661,823	\$ (1,557,984)	\$ -	\$ 30,226,838

22 Major Additions/Retirements

23 2001 \$ (1,557,829)

24

25

26

27 Routine Activity \$ 6,636 \$ (155)

28 Historical Interim Activity 0.02% 0.00%

29 Forecast Interim Activity 0.00% 0.00%

Major Additions**

30	2015	25						-	-		1,103,839
31	2016	24						-	-		1,103,839
32	2017	23						-	-		1,103,839
33	2018	22						-	-		1,103,839
34	2019	21						-	-		1,103,839
35	2020	20						-	-		1,103,839
36	2021	19						-	-		1,103,839
37	2022	18						-	-		1,103,839
38	2023	17						-	-		1,103,839
39	2024	16						-	-		1,103,839
40	2025	15						-	-		1,103,839
41	2026	14						-	-		1,103,839
42	2027	13						-	-		1,103,839
43	2028	12						-	-		1,103,839
44	2029	11						-	-		1,103,839
45	2030	10						-	-		1,103,839
46	2031	9						-	-		1,103,839
47	2032	8						-	-		1,103,839
48	2033	7						-	-		1,103,839
49	2034	6						-	-		1,103,839
50	2035	5						-	-		1,103,839
51	2036	4						-	-		1,103,839
52	2037	3						-	-		1,103,839
53	2038	2						-	-		1,103,839
54	2039	1						-	-		1,103,839
55	2040	0						-	-	(1,103,839)	-
			\$ -	\$ 2,661,823	\$ (1,557,984)						\$ 57,822,813

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	2,661,823
Forecast Additions	-
Total Additions	2,661,823
Gross Salvage Value	88,307
Less Cost of Removal	110,384
Net Salvage Value	(22,077)
Total to be Recovered	2,683,900
Forecast Plant Balances	57,822,813

Whole Life Accrual Rate 4.64%

Cost of Removal Accrual Rate 0.19%

Whole Life Accrual Rate (Excluding Cost of Removal) 4.45%

Depreciable Service Life, years 21.5

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	1,103,839	
Forecast Additions	-	
Gross Salvage Value	88,307	
Less Cost of Removal	<u>110,384</u>	
Net Salvage Value	(22,077)	
Depreciation Reserve Balance 12/31/14	(1,190,550)	Garren Proposed
Forecast Total Remaining Life Balance	(64,634)	Annual Accrual
Forecast Remaining Plant Balances	27,595,975	(2,585)
Remaining Life Accrual Rate	-0.23%	-0.23%

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, State Line Combustion Turbine	Install Date	1995
	Retirement Date	2040
	Service Life, Yrs	45

**Historical and Forecast Plant Additions & Balances
Account: 342 Fuel Holders, Producers & Accessories**

Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Retirements		Advance		Retirements			
			Balance	Additions			Additions					
1	1995	45	2,272,367	-	-	(84,876)	-	2,272,367	-	-	2,272,367	
2	1996	44	-	-	-	-	-	-	-	-	2,272,367	
3	1997	43	1,009,128	-	-	(37,816)	-	1,009,128	-	-	3,281,495	
4	1998	42	28,567	-	-	(28,566)	-	28,567	-	-	3,310,062	
5	1999	41	-	-	-	-	-	-	-	-	3,310,062	
6	2000	40	-	-	-	-	-	-	-	-	3,310,062	
7	2001	39	-	-	(145,291)	-	-	-	(145,291)	-	3,164,771	
8	2002	38	-	-	-	-	-	-	-	-	3,164,771	
9	2003	37	-	-	-	-	-	-	-	-	3,164,771	
10	2004	36	-	-	-	-	-	-	-	-	3,164,771	
11	2005	35	-	-	-	-	-	-	-	-	3,164,771	
12	2006	34	-	70,554	-	-	-	70,554	-	-	3,235,325	
13	2007	33	-	-	-	-	-	-	-	-	3,235,325	
14	2008	32	-	-	-	-	-	-	-	-	3,235,325	
15	2009	31	-	-	(5,967)	-	840	840	(5,967)	-	3,230,198	
16	2010	30	-	-	-	-	-	-	-	-	3,230,198	
17	2011	29	-	-	-	-	-	-	-	-	3,230,198	
18	2012	28	-	-	-	-	-	-	-	-	3,230,198	
19	2013	27	-	-	-	-	-	-	-	-	3,230,198	
20	2014	26	-	-	-	-	-	-	-	-	3,230,198	
21	Total		\$ 3,310,062	\$ 70,554	\$ (151,258)	\$ (151,258)	\$ 840	\$ 3,381,456	\$ (151,258)	\$ -	\$ 62,667,433	
22	Major Additions/Retirements											
23	2001				(145,291)							
24												
25												
26												
27	Routine Activity		\$	71,394	\$ (5,967)							
28	Historical Interim Activity			0.11%	-0.01%							
29	Forecast Interim Activity			0.00%	-0.01%							
30	2015	25							(308)		3,229,890	
31	2016	24							(308)		3,229,583	
32	2017	23							(308)		3,229,275	
33	2018	22							(307)		3,228,968	
34	2019	21							(307)		3,228,660	
35	2020	20							(307)		3,228,353	
36	2021	19							(307)		3,228,046	
37	2022	18							(307)		3,227,738	
38	2023	17							(307)		3,227,431	
39	2024	16							(307)		3,227,124	
40	2025	15							(307)		3,226,816	
41	2026	14							(307)		3,226,509	
42	2027	13							(307)		3,226,202	
43	2028	12							(307)		3,225,895	
44	2029	11							(307)		3,225,588	
45	2030	10							(307)		3,225,280	
46	2031	9							(307)		3,224,973	
47	2032	8							(307)		3,224,666	
48	2033	7							(307)		3,224,359	
49	2034	6							(307)		3,224,052	
50	2035	5							(307)		3,223,745	
51	2036	4							(307)		3,223,438	
52	2037	3							(307)		3,223,131	
53	2038	2							(307)		3,222,824	
54	2039	1							(307)		3,222,518	
55	2040	0							(307)			
										(3,222,518)		
											\$ 143,322,499	

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	3,381,456
Forecast Additions	-
Total Additions	3,381,456
Gross Salvage Value	257,801
Less Cost of Removal	322,252
Net Salvage Value	(64,450)
Total to be Recovered	3,445,906
Forecast Plant Balances	143,322,499

Whole Life Accrual Rate	2.40%
Cost of Removal Accrual Rate	0.22%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.18%
Depreciable Service Life, years	41.6

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	3,230,198
Forecast Additions	-
Gross Salvage Value	257,801
Less Cost of Removal	322,252
Net Salvage Value	(64,450)

Depreciation Reserve Balance 12/31/14	(2,090,436)	Garren Proposed Annual Accrual
Forecast Total Remaining Life Balance	1,204,213	48,169
Forecast Remaining Plant Balances	80,655,066	
Remaining Life Accrual Rate	1.49%	1.49%

The Empire District Electric Company	Gross Salvage	10%
	Cost of Removal	5%
Unit Property Depreciation Rate Analysis	Net Salvage	5%
Unit Property: Other Production, State Line Combustion Turbine	Install Date	1995
	Retirement Date	2040
	Service Life, Yrs	45

Historical and Forecast Plant Additions & Balances
Account: 343 Prime Movers

Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Retirements			Additions	Retirements		
			Balance	Additions							
1	1995	45	28,558,733	2,952	-	(4,814,872)	-	28,561,685	-	28,561,685	
2	1996	44	-	-	-	-	-	-	-	28,561,685	
3	1997	43	10,153,242	-	-	(8,552,366)	-	10,153,242	-	38,714,927	
4	1998	42	-	-	-	-	-	-	-	38,714,927	
5	1999	41	-	1,699,597	-	(1,699,597)	-	1,699,597	-	40,414,524	
6	2000	40	-	3,484,498	-	(3,484,498)	-	3,484,498	-	43,899,022	
7	2001	39	-	4,342,181	(17,779,191)	(4,143,947)	-	4,342,181	(17,779,191)	30,462,012	
8	2002	38	-	-	-	-	-	-	-	30,462,012	
9	2003	37	-	-	-	-	-	-	-	30,462,012	
10	2004	36	-	658,543	-	-	-	658,543	-	31,120,555	
11	2005	35	-	867,296	-	-	-	867,296	-	31,987,851	
12	2006	34	-	20,217	(2,687,951)	(20,217)	-	20,217	(2,687,951)	29,320,117	
13	2007	33	-	12,000	(136,081)	-	-	12,000	(136,081)	29,196,036	
14	2008	32	-	-	(1,899,982)	-	-	-	(1,899,982)	27,296,054	
15	2009	31	-	78,554	(148,999)	-	(369)	78,185	(148,999)	27,225,240	
16	2010	30	-	-	-	-	-	-	-	27,225,240	
17	2011	29	-	7,016	(63,293)	-	-	7,016	(63,293)	27,168,963	
18	2012	28	-	-	-	-	208,701	208,701	-	27,377,664	
19	2013	27	-	-	-	-	-	-	-	27,377,664	
20	2014	26	-	-	-	-	-	-	-	27,377,664	
21	Total		\$ 38,711,975	\$ 11,172,854	\$ (22,715,497)	\$ (22,715,497)	\$ 208,331	\$ 50,093,161	\$ (22,715,497)	\$ 622,925,855	

22 Major Additions/Retirements

23	2000		\$ 3,484,498		
24	2001		\$ 4,342,181	\$ (17,779,191)	
25	2006			\$ (2,687,951)	
26	2008			\$ (1,899,982)	
27	Routine Activity		\$ 3,554,507	\$ (348,373)	
28	Historical Interim Activity		0.57%	-0.06%	
29	Forecast Interim Activity		0.00%	-0.06%	

Major Additions**

30	2015	25							(15,311)		27,362,353
31	2016	24							(15,302)		27,347,050
32	2017	23							(15,294)		27,331,756
33	2018	22							(15,285)		27,316,471
34	2019	21							(15,277)		27,301,194
35	2020	20							(15,268)		27,285,926
36	2021	19							(15,260)		27,270,666
37	2022	18							(15,251)		27,255,415
38	2023	17							(15,243)		27,240,172
39	2024	16							(15,234)		27,224,938
40	2025	15							(15,226)		27,209,712
41	2026	14							(15,217)		27,194,495
42	2027	13							(15,209)		27,179,287
43	2028	12							(15,200)		27,164,087
44	2029	11							(15,192)		27,148,895
45	2030	10							(15,183)		27,133,712
46	2031	9							(15,175)		27,118,537
47	2032	8							(15,166)		27,103,371
48	2033	7							(15,158)		27,088,214
49	2034	6							(15,149)		27,073,064
50	2035	5							(15,141)		27,057,924
51	2036	4							(15,132)		27,042,791
52	2037	3							(15,124)		27,027,668
53	2038	2							(15,115)		27,012,552
54	2039	1							(15,107)		26,997,446
55	2040	0								(26,997,446)	
								\$ -	\$ 50,093,161	\$ (23,095,715)	\$ 1,302,413,551

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	50,093,161
Forecast Additions	-
Total Additions	50,093,161
Gross Salvage Value	2,699,745
Less Cost of Removal	1,349,872
Net Salvage Value	1,349,872
Total to be Recovered	48,743,288

Forecast Plant Balances 1,302,413,551

Whole Life Accrual Rate	3.74%
Cost of Removal Accrual Rate	0.10%
Whole Life Accrual Rate (Excluding Cost of Removal)	3.64%
Depreciable Service Life, years	26.7

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	27,377,664
Forecast Additions	-
Gross Salvage Value	2,699,745
Less Cost of Removal	1,349,872
Net Salvage Value	1,349,872

Depreciation Reserve Balance 12/31/14	(12,252,645)	Garren Proposed Annual Accrual	
Forecast Total Remaining Life Balance	13,775,146		551,006
Forecast Remaining Plant Balances	679,487,696		
Remaining Life Accrual Rate	2.03%		2.01%

The Empire District Electric Company
Unit Property Depreciation Rate Analysis
Unit Property: Other Production, State Line Combustion Turbine

Gross Salvage 10%
Cost of Removal 5%
Net Salvage 5%
Install Date 1995
Retirement Date 2040
Service Life, Yrs 45

Historical and Forecast Plant Additions & Balances
Account: 344 Generators

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E]			[F] Vintage Year Retirements	[G] Account 106 Advance Additions	[H] [I]		[J] Transfers and Adjustments	[K] End of Year Plant Balance*
			Reported Per Books					Adjusted Transaction Year			
			Transaction Year					Retirements			
Balance	Additions	Retirements	Additions	Retirements							
1	1995	45	6,716,153	-	-	-	6,716,153	-	-	6,716,153	
2	1996	44	-	-	-	-	-	-	-	6,716,153	
3	1997	43	3,145,772	-	-	(2,812,721)	3,145,772	-	-	9,861,925	
4	1998	42	-	-	-	-	-	-	-	9,861,925	
5	1999	41	-	-	-	-	-	-	-	9,861,925	
6	2000	40	-	-	-	-	-	-	-	9,861,925	
7	2001	39	-	-	(2,812,721)	-	-	(2,812,721)	-	7,049,204	
8	2002	38	-	-	-	-	-	-	-	7,049,204	
9	2003	37	-	-	-	-	-	-	-	7,049,204	
10	2004	36	-	-	-	-	-	-	-	7,049,204	
11	2005	35	-	-	-	-	-	-	-	7,049,204	
12	2006	34	-	-	-	-	-	-	-	7,049,204	
13	2007	33	-	-	-	-	-	-	-	7,049,204	
14	2008	32	-	-	-	-	-	-	-	7,049,204	
15	2009	31	-	-	-	-	129,367	129,367	-	7,178,571	
16	2010	30	-	-	-	-	-	-	-	7,178,571	
17	2011	29	-	-	-	-	-	-	-	7,178,571	
18	2012	28	-	-	-	-	-	-	-	7,178,571	
19	2013	27	-	-	-	-	-	-	-	7,178,571	
20	2014	26	-	-	-	-	-	-	-	7,178,571	
21	Total		\$ 9,861,925	\$ -	\$ (2,812,721)	\$ (2,812,721)	\$ 129,367	\$ 9,991,292	\$ (2,812,721)	\$ -	\$ 152,345,064
22	Major Additions/Retirements										
23	2001				\$ (2,812,721)						
24											
25											
26											
27	Routine Activity		\$ -	\$ -							
28	Historical Interim Activity			0.00%	0.00%						
29	Forecast Interim Activity			0.00%	0.00%						
30	2015	25									7,178,571
31	2016	24									7,178,571
32	2017	23									7,178,571
33	2018	22									7,178,571
34	2019	21									7,178,571
35	2020	20									7,178,571
36	2021	19									7,178,571
37	2022	18									7,178,571
38	2023	17									7,178,571
39	2024	16									7,178,571
40	2025	15									7,178,571
41	2026	14									7,178,571
42	2027	13									7,178,571
43	2028	12									7,178,571
44	2029	11									7,178,571
45	2030	10									7,178,571
46	2031	9									7,178,571
47	2032	8									7,178,571
48	2033	7									7,178,571
49	2034	6									7,178,571
50	2035	5									7,178,571
51	2036	4									7,178,571
52	2037	3									7,178,571
53	2038	2									7,178,571
54	2039	1									7,178,571
55	2040	0							(7,178,571)		7,178,571
							\$ -	\$ 9,991,292	\$ (2,812,721)		\$ 331,809,339

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	9,991,292
Forecast Additions	-
Total Additions	9,991,292
Gross Salvage Value	717,857
Less Cost of Removal	358,929
Net Salvage Value	358,929
Total to be Recovered	9,632,363

Forecast Plant Balances 331,809,339

Whole Life Accrual Rate 2.90%
Cost of Removal Accrual Rate 0.11%
Whole Life Accrual Rate (Excluding Cost of Removal) 2.79%

Depreciable Service Life, years 34.4

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	7,178,571
Forecast Additions	-
Gross Salvage Value	717,857
Less Cost of Removal	358,929
Net Salvage Value	358,929

Depreciation Reserve Balance 12/31/14	(4,282,803)	Garren Proposed
Forecast Total Remaining Life Balance	2,536,839	Annual Accrual
Forecast Remaining Plant Balances	179,464,275	101,474
Remaining Life Accrual Rate	1.41%	1.41%

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, State Line Combustion Turbine	Install Date	1995
	Retirement Date	2040
	Service Life, Yrs	45

Historical and Forecast Plant Additions & Balances
Account: 345 Accessory Electric Equipment

Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year					Retirements	Additions			Retirements
			Balance	Additions	Retirements							
1	1995	45	2,213,217	-	-	(11,591)	-	2,213,217	-	-	2,213,217	
2	1996	44	4,151	-	-	-	-	4,151	-	-	2,217,368	
3	1997	43	969,686	-	-	(969,686)	-	969,686	-	-	3,187,054	
4	1998	42	-	-	-	-	-	-	-	-	3,187,054	
5	1999	41	-	-	-	-	-	-	-	-	3,187,054	
6	2000	40	-	25,422	-	-	-	25,422	-	-	3,212,476	
7	2001	39	-	19,648	(981,277)	-	-	19,648	(981,277)	-	2,250,847	
8	2002	38	-	-	-	-	-	-	-	-	2,250,847	
9	2003	37	-	-	-	-	-	-	-	-	2,250,847	
10	2004	36	-	-	-	-	-	-	-	-	2,250,847	
11	2005	35	-	-	-	-	-	-	-	-	2,250,847	
12	2006	34	-	-	-	-	-	-	-	-	2,250,847	
13	2007	33	-	-	-	-	-	-	-	-	2,250,847	
14	2008	32	-	-	-	-	-	-	-	639,824	2,890,671	
15	2009	31	-	-	-	-	1,487	1,487	-	-	2,892,158	
16	2010	30	-	-	-	-	-	-	-	-	2,892,158	
17	2011	29	-	-	-	-	-	-	-	-	2,892,158	
18	2012	28	-	-	-	-	8,278	8,278	-	(4,191)	2,896,245	
19	2013	27	-	-	-	-	-	-	-	-	2,896,245	
20	2014	26	-	-	-	-	-	-	-	-	2,896,245	
21	Total		\$ 3,187,054	\$ 45,070	\$ (981,277)	\$ (981,277)	\$ 9,765	\$ 3,241,889	\$ (981,277)	\$ 635,633	\$ 53,216,032	
22	Major Additions/Retirements											
23	2001				(981,277)							
24												
25												
26												
27	Routine Activity		\$ 45,070	\$ -								
28	Historical Interim Activity		0.08%	0.00%								
29	Forecast Interim Activity		0.00%	0.00%								
							Major Additions**					
30	2015	25						-	-		2,896,245	
31	2016	24						-	-		2,896,245	
32	2017	23						-	-		2,896,245	
33	2018	22						-	-		2,896,245	
34	2019	21						-	-		2,896,245	
35	2020	20						-	-		2,896,245	
36	2021	19						-	-		2,896,245	
37	2022	18						-	-		2,896,245	
38	2023	17						-	-		2,896,245	
39	2024	16						-	-		2,896,245	
40	2025	15						-	-		2,896,245	
41	2026	14						-	-		2,896,245	
42	2027	13						-	-		2,896,245	
43	2028	12						-	-		2,896,245	
44	2029	11						-	-		2,896,245	
45	2030	10						-	-		2,896,245	
46	2031	9						-	-		2,896,245	
47	2032	8						-	-		2,896,245	
48	2033	7						-	-		2,896,245	
49	2034	6						-	-		2,896,245	
50	2035	5						-	-		2,896,245	
51	2036	4						-	-		2,896,245	
52	2037	3						-	-		2,896,245	
53	2038	2						-	-		2,896,245	
54	2039	1						-	-		2,896,245	
55	2040	0						-	-	(2,896,245)	-	
								\$ -	\$ 3,241,889	\$ (981,277)	\$ 125,622,156	

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	3,877,522
Forecast Additions	(635,633)
Total Additions	3,241,889
Gross Salvage Value	231,700
Less Cost of Removal	289,624
Net Salvage Value	(57,925)
Total to be Recovered	3,299,814

Forecast Plant Balances 125,622,156

Whole Life Accrual Rate	2.63%
Cost of Removal Accrual Rate	0.23%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.40%

Depreciable Service Life, years 38.1

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	2,896,245
Forecast Additions	-
Gross Salvage Value	231,700
Less Cost of Removal	289,624
Net Salvage Value	(57,925)

Depreciation Reserve Balance 12/31/14	(1,661,982)	Garren Proposed
Forecast Total Remaining Life Balance	1,292,188	Annual Accrual
Forecast Remaining Plant Balances	72,406,124	51,688
Remaining Life Accrual Rate	1.78%	1.78%

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, State Line Combustion Turbine	Install Date	1995
	Retirement Date	2040
	Service Life, Yrs	45

Historical and Forecast Plant Additions & Balances
Account: 346 Misc Power Equipment

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E]			[F]	[G]	[H]	[I]	[J]	[K]
			Reported Per Books			Vintage Year Retirements	Account 106 Advance Additions	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Balance	Additions	Retirements			Additions	Retirements		
1	1995	45	34,968	-	-	(30,771)	-	34,968	-	-	34,968
2	1996	44	9,676	-	-	(9,676)	-	9,676	-	-	44,644
3	1997	43	35,383	-	-	(2,832)	-	35,383	-	-	80,027
4	1998	42	-	-	-	-	-	-	-	-	80,027
5	1999	41	-	-	-	-	-	-	-	-	80,027
6	2000	40	-	2,001	-	-	-	2,001	-	-	82,028
7	2001	39	-	666,782	(43,279)	(9,880)	-	666,782	(43,279)	-	705,531
8	2002	38	-	-	-	-	-	-	-	-	705,531
9	2003	37	-	-	-	-	-	-	-	-	705,531
10	2004	36	-	17,476	-	-	-	17,476	-	-	723,007
11	2005	35	-	33,490	-	-	-	33,490	-	-	756,497
12	2006	34	-	39,554	-	(9,089)	(2,168)	37,386	-	-	793,883
13	2007	33	-	10,815	-	(5,471)	-	10,815	-	-	804,698
14	2008	32	-	205,238	-	-	2,168	207,406	-	-	1,012,104
15	2009	31	-	1,274	(18,969)	-	48,719	49,993	(18,969)	-	1,043,128
16	2010	30	-	3,500	-	-	-	3,500	-	-	1,046,628
17	2011	29	-	-	(5,471)	-	-	-	(5,471)	-	1,041,157
18	2012	28	-	-	-	-	-	-	-	-	1,041,157
19	2013	27	-	-	-	-	-	-	-	-	1,041,157
20	2014	26	-	-	-	-	-	-	-	-	1,041,157
21	Total		\$ 80,027	\$ 980,130	\$ (67,719)	\$ (67,719)	\$ 48,719	\$ 1,108,876	\$ (67,719)	\$ -	\$ 12,862,888
22	Major Additions/Retirements										
23	2001			\$ 666,782	\$ (43,279)						
24	2008			\$ 205,238							
25											
26											
27	Routine Activity										
28	Historical Interim Activity			\$ 156,829	\$ (24,440)						
29	Forecast Interim Activity			0.00%	-0.19%						
30	2015	25							(1,978)		1,039,179
31	2016	24							(1,974)		1,037,205
32	2017	23							(1,971)		1,035,234
33	2018	22							(1,967)		1,033,267
34	2019	21							(1,963)		1,031,304
35	2020	20							(1,959)		1,029,344
36	2021	19							(1,956)		1,027,388
37	2022	18							(1,952)		1,025,436
38	2023	17							(1,948)		1,023,488
39	2024	16							(1,945)		1,021,543
40	2025	15							(1,941)		1,019,602
41	2026	14							(1,937)		1,017,665
42	2027	13							(1,934)		1,015,732
43	2028	12							(1,930)		1,013,802
44	2029	11							(1,926)		1,011,875
45	2030	10							(1,923)		1,009,953
46	2031	9							(1,919)		1,008,034
47	2032	8							(1,915)		1,006,119
48	2033	7							(1,912)		1,004,207
49	2034	6							(1,908)		1,002,299
50	2035	5							(1,904)		1,000,395
51	2036	4							(1,901)		998,494
52	2037	3							(1,897)		996,597
53	2038	2							(1,894)		994,703
54	2039	1							(1,890)		992,813
55	2040	0								(992,813)	
											\$ 38,258,567

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	1,108,876
Forecast Additions	-
Total Additions	1,108,876
Gross Salvage Value	79,425
Less Cost of Removal	99,281
Net Salvage Value	(19,856)
Total to be Recovered	1,128,732

Forecast Plant Balances 38,258,567

Whole Life Accrual Rate	2.95%
Cost of Removal Accrual Rate	0.26%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.69%

Depreciable Service Life, years 33.9

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	1,041,157
Forecast Additions	-
Gross Salvage Value	79,425
Less Cost of Removal	99,281
Net Salvage Value	(19,856)

Depreciation Reserve Balance 12/31/14 (303,610)

Garren Proposed Annual Accrual 30,296

Forecast Total Remaining Life Balance	757,404
Forecast Remaining Plant Balances	25,395,679
Remaining Life Accrual Rate	2.98%

2.91%

Summary by Plant
The Empire District Electric Company
Asbury Plant

Account	Description	Direct Investment 2014\$	Depreciation Rate
311	Structure & Improvements	18,292,563	4.14%
312	Boiler Plant Equipment	217,007,193	5.00%
314	Turbo Generator Equipment	36,039,914	4.69%
315	Accessory Electric Equipment	7,154,041	3.71%
316	Misc Power Equipment	2,290,843	3.13%
Total		280,784,554	4.86% remaining life weighted average rate

The Empire District Electric Company	Gross Salvage	5%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-5%
Unit Property: Steam Production, Asbury Plant	Install Date	1970
	Retirement Date	2035
	Remaining Life	20
	Service Life, Yrs	65

Historical and Forecast Plant Additions & Balances
Account: 311 Structures & Improvements

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	Vintage Remaining Life
			Transaction Year			Vintage Year	Advance	Additions	Retirements			
			Balance	Additions	Retirements	Retirements	Additions					
1	1970	65	733,336	-	-	(89,549)	-	733,336	-	-	733,336	65
2	1971	64	8,946	-	-	-	-	8,946	-	-	742,282	
3	1972	63	1,192	-	-	-	-	1,192	-	-	743,474	
4	1973	62	-	-	-	-	-	-	-	-	743,474	
5	1974	61	-	-	-	-	-	-	-	-	743,474	
6	1975	60	-	-	-	-	-	-	-	-	743,474	
7	1976	59	-	-	-	-	-	-	-	-	743,474	
8	1977	58	-	-	-	-	-	-	-	-	743,474	
9	1978	57	120,977	-	-	-	-	120,977	-	-	864,451	
10	1979	56	41,006	-	-	-	-	41,006	-	-	905,457	
11	1980	55	29,783	-	-	(677)	-	29,783	-	-	935,240	
12	1981	54	5,687	-	-	-	-	5,687	-	-	940,927	
13	1982	53	1,644	-	-	-	-	1,644	-	-	942,571	
14	1983	52	-	-	-	-	-	-	-	-	942,571	
15	1984	51	25,765	42,787	-	(8,928)	-	68,552	-	-	1,011,123	
16	1985	50	-	-	-	-	-	-	-	-	1,011,123	
17	1986	49	2,392,445	-	-	(24,002)	-	2,392,445	-	-	3,403,568	
18	1987	48	91,974	-	-	(86,414)	-	91,974	-	-	3,495,542	
19	1988	47	12,344	-	-	-	-	12,344	-	-	3,507,886	
20	1989	46	-	-	-	-	-	-	-	-	3,507,886	
21	1990	45	8,888,648	-	-	(412,012)	-	8,888,648	-	-	12,396,534	
22	1991	44	29,680	-	-	(752)	-	29,680	-	-	12,426,214	
23	1992	43	99,952	-	-	(43,081)	-	99,952	-	-	12,526,166	
24	1993	42	235,141	-	-	-	-	235,141	-	-	12,761,307	
25	1994	41	60,961	-	-	-	-	60,961	-	-	12,822,268	
26	1995	40	93,854	-	-	-	-	93,854	-	-	12,916,122	
27	1996	39	134,029	-	-	(14,900)	-	134,029	-	-	13,050,151	
28	1997	38	180,858	-	-	(38,440)	-	180,858	-	-	13,231,009	
29	1998	37	72,408	-	-	(31,037)	-	72,408	-	-	13,303,417	
30	1999	36	-	-	(59,445)	-	-	-	(59,445)	-	13,243,972	
31	2000	35	-	99,245	(4,600)	-	-	99,245	(4,600)	-	13,338,617	
32	2001	34	-	46,200	-	(2,415)	-	46,200	-	-	13,384,817	
33	2002	33	-	102,502	-	-	-	102,502	-	-	13,487,319	
34	2003	32	-	11,386	-	-	-	11,386	-	-	13,498,705	
35	2004	31	-	119,746	(10,235)	-	-	119,746	(10,235)	-	13,608,216	
36	2005	30	-	75,007	-	(1,774)	-	75,007	-	-	13,683,223	
37	2006	29	-	44,811	-	-	-	44,811	-	-	13,728,034	
38	2007	28	-	70,748	(2,415)	-	-	70,748	(2,415)	-	13,796,367	
39	2008	27	-	66,059	(5,008)	-	-	66,059	(5,008)	-	13,857,418	
40	2009	26	-	33,136	-	-	-	33,136	-	-	13,890,553	
41	2010	25	-	446,383	(3,100)	(401,728)	-	446,383	(3,100)	-	14,333,836	
42	2011	24	-	80,471	(317,930)	-	-	80,471	(317,930)	-	14,096,377	
43	2012	23	-	3,943,793	(210,174)	-	301,669	4,245,461	(210,174)	-	18,131,665	
44	2013	22	-	-	(345,737)	-	280,159	280,159	(345,737)	-	18,066,087	
45	2014	21	-	-	(197,064)	-	204,824	204,824	(197,064)	218,717	18,292,563	
46	Total		\$ 13,260,630	\$ 5,182,273	\$ (1,155,708)	\$ (1,155,708)	\$ 786,652	\$ 19,229,555	\$ (1,155,708)	\$ 218,717	\$ 375,275,770	
47	Major Additions/Retirements											
48	2011				\$ (317,930)							
49	2012			3,943,793	\$ (210,174)							
50	2013				\$ (345,737)							
51	2014				\$ (197,064)							
52	Routine Activity			\$ 2,025,132	\$ (84,803)							
53	Historical Interim Activity			0.54%	-0.02%							
54	Forecast Interim Activity			0.00%	-0.02%							
							Major Additions**			Major Retirements		
55	2015	20						-	(4,134)		18,288,430	
56	2016	19						-	(4,133)		18,284,297	
57	2017	18						-	(4,132)		18,280,165	
58	2018	17						-	(4,131)		18,276,034	
59	2019	16						-	(4,130)		18,271,904	
60	2020	15						-	(4,129)		18,267,775	
61	2021	14						-	(4,128)		18,263,647	
62	2022	13						-	(4,127)		18,259,520	

The Empire District Electric Company

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	1970
Retirement Date	2035
Remaining Life	20
Service Life, Yrs	65

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Asbury Plant

Historical and Forecast Plant Additions & Balances
Account: 311 Structures & Improvements

	[A]	[B]	[C]			[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	Vintage Remaining Life		
			Transaction Year			Vintage Year	Advance	Additions	Retirements					
			Balance	Additions	Retirements	Retirements	Additions							
63	2023	12							-	(4,126)		18,255,394		
64	2024	11							-	(4,125)		18,251,269		
65	2025	10							-	(4,124)		18,247,144		
66	2026	9							-	(4,123)		18,243,021		
67	2027	8							-	(4,122)		18,238,899		
68	2028	7							-	(4,122)		18,234,777		
69	2029	6							-	(4,121)		18,230,656		
70	2030	5							-	(4,120)		18,226,537		
71	2031	4							-	(4,119)		18,222,418		
72	2032	3							-	(4,118)		18,218,300		
73	2033	2							-	(4,117)		18,214,183		
74	2034	1							-	(4,116)		18,210,067		
75	2035	0									(18,210,067)	-		
									\$ -	\$ 19,229,555	\$ (1,238,204)	\$ 740,260,209		

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	19,229,555
Forecast Additions	-
Total Additions	19,229,555
Gross Salvage Value	910,503
Less Cost of Removal	1,821,007
Net Salvage Value	(910,503)
Total to be Recovered	20,140,058

Forecast Plant Balances 740,260,209

Whole Life Accrual Rate 2.72%

Cost of Removal Accrual Rate 0.25%

Whole Life Accrual Rate (Excluding Cost of Removal) 2.47%

Depreciable Service Life, years 36.8

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	18,292,563
Forecast Additions	-
Gross Salvage Value	910,503
Less Cost of Removal	1,821,007
Net Salvage Value	(910,503)

Depreciation Reserve Balance 12/31/14 (4,054,373)

Garren Proposed Annual Accrual

Forecast Total Remaining Life Balance 15,148,694

757,434.69

Forecast Plant Balances 364,984,439

Remaining Life Accrual Rate 4.15%

4.14%

The Empire District Electric Company

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Asbury Plant

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	1970
Retirement Date	2035
Service Life, Yrs	65

Historical and Forecast Plant Additions & Balances

Account: 312 Boiler Plant Equipment

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106 Advance Additions	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements		Additions	Retirements		
			Balance	Additions	Retirements						
1	1970	65	12,597,910	49,965	-	(4,869,252)	-	12,647,875	-	-	12,647,875
2	1971	64	248,135	-	-	(33,744)	-	248,135	-	-	12,896,010
3	1972	63	67,779	-	-	(29,910)	-	67,779	-	-	12,963,789
4	1973	62	56,263	-	-	(18,959)	-	56,263	-	-	13,020,052
5	1974	61	207,476	-	-	(179,204)	-	207,476	-	-	13,227,528
6	1975	60	61,298	-	-	(39,703)	-	61,298	-	-	13,288,826
7	1976	59	224,592	-	-	(135,418)	-	224,592	-	-	13,513,418
8	1977	58	208,546	-	-	(93,096)	-	208,546	-	-	13,721,964
9	1978	57	394,454	-	-	(265,979)	-	394,454	-	-	14,116,418
10	1979	56	3,845,385	-	-	(3,656,207)	-	3,845,385	-	-	17,961,803
11	1980	55	150,595	-	-	(58,000)	-	150,595	-	-	18,112,398
12	1981	54	288,683	-	-	(238,480)	-	288,683	-	-	18,401,081
13	1982	53	263,675	-	-	(90,270)	-	263,675	-	-	18,664,756
14	1983	52	347,742	-	-	(197,318)	-	347,742	-	-	19,012,498
15	1984	51	300,303	-	-	(258,014)	-	300,303	-	-	19,312,801
16	1985	50	77,137	-	-	(1,080)	-	77,137	-	-	19,389,938
17	1986	49	1,346,623	-	-	(374,872)	-	1,346,623	-	-	20,736,561
18	1987	48	1,593,575	-	-	(942,143)	-	1,593,575	-	-	22,330,136
19	1988	47	1,526,147	-	-	(174,507)	-	1,526,147	-	-	23,856,283
20	1989	46	872,427	-	-	(433,525)	-	872,427	-	-	24,728,710
21	1990	45	12,451,299	156,409	-	(506,066)	-	12,607,708	-	-	37,336,419
22	1991	44	712,943	-	-	(462,280)	-	712,943	-	-	38,049,362
23	1992	43	798,020	11,867	-	(228,003)	-	809,887	-	-	38,859,248
24	1993	42	1,286,297	-	-	(797,153)	-	1,286,297	-	-	40,145,545
25	1994	41	1,297,618	5,213	-	(396,244)	-	1,302,831	-	-	41,448,377
26	1995	40	1,127,004	-	-	(254,478)	-	1,127,004	-	-	42,575,381
27	1996	39	3,035,892	28,079	-	(574,050)	-	3,063,971	-	-	45,639,352
28	1997	38	1,115,228	-	-	(385,211)	-	1,115,228	-	-	46,754,580
29	1998	37	2,318,768	57,288	-	(47,104)	-	2,376,056	-	-	49,130,635
30	1999	36	-	3,904,565	(2,199,465)	(443,075)	-	3,904,565	(2,199,465)	-	50,835,735
31	2000	35	-	1,819,015	(116,307)	(274,855)	-	1,819,015	(116,307)	-	52,538,443
32	2001	34	-	1,221,566	-	(458,633)	-	1,221,566	-	-	53,760,009
33	2002	33	-	10,841,295	-	(273,729)	-	10,841,295	-	-	64,601,304
34	2003	32	-	943,693	(446,115)	(251,428)	-	943,693	(446,115)	-	65,098,882
35	2004	31	-	1,283,175	(1,944,362)	(830,467)	-	1,283,175	(1,944,362)	-	64,437,694
36	2005	30	-	4,623,075	-	(2,273,662)	-	4,623,075	-	-	69,060,769
37	2006	29	-	478,043	-	(127,309)	-	478,043	-	-	69,538,812
38	2007	28	-	6,644,621	(1,880,069)	(610,592)	-	6,644,621	(1,880,069)	-	74,303,364
39	2008	27	-	32,347,214	(79,015)	(1,696,019)	-	32,347,214	(79,015)	-	106,571,563
40	2009	26	-	494,582	-	(18,009)	0	494,582	-	-	107,066,145
41	2010	25	-	571,874	(312,584)	(33,905)	114,161	686,035	(312,584)	-	107,439,596
42	2011	24	-	243,748	(42,511)	-	98,476	342,224	(42,511)	-	107,739,310
43	2012	23	-	1,090,614	(1,698,211)	-	313,197	1,403,811	(1,698,211)	-	107,444,910
44	2013	22	-	-	(1,957,363)	-	1,148,314	1,148,314	(1,957,363)	391,860	107,027,722
45	2014	21	-	-	(12,355,952)	-	122,554,139	122,554,139	(12,355,952)	(218,717)	217,007,193
46	Total		\$ 48,821,814	\$ 66,815,900	\$ (23,031,952)	\$ (23,031,952)	\$ 124,228,288	\$ 239,866,001	\$ (23,031,952)	\$ 173,144	\$ 2,146,313,202
47	Major Additions/Retirements										
48	2002			\$ 10,841,295							
49	2007			\$ 6,644,621	\$ (1,880,069)						
50	2008			\$ 32,347,214	\$ (1,957,363)						
51	2014			\$ 122,554,139	\$ (12,355,952)						
52	Routine Activity			\$ 18,656,918	\$ (6,838,569)						
53	Historical Interim Activity			0.87%	-0.32%						
54	Forecast Interim Activity			0.00%	-0.32%						
							<u>Major Additions**</u>		<u>Major Retirements</u>		
55	2015	20						-	(691,427)		216,315,766
56	2016	19							(689,224)		215,626,542
57	2017	18							(687,028)		214,939,514
58	2018	17					7,600,000		(684,839)		221,854,675
59	2019	16					5,600,000		(706,872)		226,747,803
60	2020	15							(722,462)		226,025,341
61	2021	14							(720,160)		225,305,181
62	2022	13							(717,866)		224,587,315
63	2023	12							(715,579)		223,871,736
64	2024	11							(713,299)		223,158,437
65	2025	10							(711,026)		222,447,411
66	2026	9							(708,760)		221,738,651
67	2027	8							(706,502)		221,032,149

The Empire District Electric Company	Gross Salvage	5%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-5%
Unit Property: Steam Production, Asbury Plant	Install Date	1970
	Retirement Date	2035
	Service Life, Yrs	65

Historical and Forecast Plant Additions & Balances
Account: 312 Boiler Plant Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year Retirements	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year				Advance	Additions	Retirements		
			Balance	Additions	Retirements		Additions				
68	2028	7						-	(704,251)		220,327,898
69	2029	6						-	(702,007)		219,625,890
70	2030	5						-	(699,771)		218,926,120
71	2031	4						-	(697,541)		218,228,579
72	2032	3						-	(695,318)		217,533,260
73	2033	2						-	(693,103)		216,840,157
74	2034	1						-	(690,895)		216,149,263
75	2035	0								(216,149,263)	-
								\$ 13,200,000	\$ 239,866,001	\$ (37,089,882)	\$ 6,557,594,889

* Through vintage year 1999 the balances are 1999 remaining plant balances.
** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	239,866,001
Forecast Additions	13,200,000
Total Additions	253,066,001
Gross Salvage Value	10,807,463
Less Cost of Removal	21,614,926
Net Salvage Value	(10,807,463)
Total to be Recovered	263,873,464

Forecast Plant Balances 6,557,594,889

Whole Life Accrual Rate	4.02%
Cost of Removal Accrual Rate	0.33%
Whole Life Accrual Rate (Excluding Cost of Removal)	3.69%
Depreciable Service Life, years	24.9

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	217,007,193
Forecast Additions	13,200,000
Gross Salvage Value	10,807,463
Less Cost of Removal	21,614,926
Net Salvage Value	(10,807,463)

Depreciation Reserve Balance 12/31/14	(23,923,643)	Garren Proposed
Forecast Total Remaining Life Balance	217,091,013	Annual Accrual
Forecast Plant Balances	4,411,281,687	10,854,550.65
Remaining Life Accrual Rate	4.92%	5.00%

The Empire District Electric Company

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	1970
Retirement Date	2035
Service Life, Yrs	65

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Asbury Plant

Historical and Forecast Plant Additions & Balances

Account: 314 Turbogenerator Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year Retirements	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Advance		Additions	Retirements			
			Balance	Additions	Retirements	Additions					
1	1970	65	8,192,128	-	-	(4,101,424)	-	8,192,128	-	-	8,192,128
2	1971	64	43,107	-	-	(20,408)	-	43,107	-	-	8,235,235
3	1972	63	1,450	-	-	-	-	1,450	-	-	8,236,685
4	1973	62	1,799	-	-	(1,799)	-	1,799	-	-	8,238,484
5	1974	61	-	-	-	-	-	-	-	-	8,238,484
6	1975	60	7,376	-	-	(6,647)	-	7,376	-	-	8,245,860
7	1976	59	7,330	-	-	(7,330)	-	7,330	-	-	8,253,190
8	1977	58	-	-	-	-	-	-	-	-	8,253,190
9	1978	57	-	-	-	-	-	-	-	-	8,253,190
10	1979	56	20,706	-	-	(5,915)	-	20,706	-	-	8,273,896
11	1980	55	-	-	-	-	-	-	-	-	8,273,896
12	1981	54	351,350	-	-	(351,350)	-	351,350	-	-	8,625,246
13	1982	53	-	-	-	-	-	-	-	-	8,625,246
14	1983	52	10,677	-	-	-	-	10,677	-	-	8,635,923
15	1984	51	10,598	-	-	(10,598)	-	10,598	-	-	8,646,521
16	1985	50	27,959	-	-	(27,959)	-	27,959	-	-	8,674,480
17	1986	49	3,889,736	-	-	(3,468,084)	-	3,889,736	-	-	12,564,216
18	1987	48	4,677	-	-	-	-	4,677	-	-	12,568,893
19	1988	47	226,936	-	-	(176,141)	-	226,936	-	-	12,795,829
20	1989	46	75,782	-	-	(67,172)	-	75,782	-	-	12,871,611
21	1990	45	4,931	-	-	-	-	4,931	-	-	12,876,542
22	1991	44	632,830	-	-	(552,593)	-	632,830	-	-	13,509,372
23	1992	43	11,469	-	-	(11,469)	-	11,469	-	-	13,520,841
24	1993	42	16,859	-	-	-	-	16,859	-	-	13,537,700
25	1994	41	73,804	-	-	-	-	73,804	-	-	13,611,504
26	1995	40	12,296	-	-	-	-	12,296	-	-	13,623,800
27	1996	39	910,483	-	-	(514,915)	-	910,483	-	-	14,534,283
28	1997	38	4,944,045	23,126	-	(480,516)	-	4,967,171	-	-	19,501,454
29	1998	37	1,501,271	-	-	-	-	1,501,271	-	-	21,002,725
30	1999	36	-	52,578	(1,550,734)	-	-	52,578	(1,550,734)	-	19,504,569
31	2000	35	-	1,241,408	-	-	-	1,241,408	-	-	20,745,977
32	2001	34	-	585,311	-	(348,460)	-	585,311	-	-	21,331,288
33	2002	33	-	811,453	-	(119,003)	-	811,453	-	-	22,142,741
34	2003	32	-	-	-	-	-	-	-	-	22,142,741
35	2004	31	-	-	(1,004,131)	-	-	-	(1,004,131)	-	21,138,610
36	2005	30	-	-	-	-	-	-	-	-	21,138,610
37	2006	29	-	352,969	-	(350,227)	-	352,969	-	-	21,491,579
38	2007	28	-	9,649	(55,892)	-	-	9,649	(55,892)	-	21,445,335
39	2008	27	-	705,769	(146,067)	-	0	705,769	(146,067)	-	22,005,037
40	2009	26	-	21,390	-	-	0	21,390	-	-	22,026,428
41	2010	25	-	5,293	(57,662)	-	-	5,293	(57,662)	-	21,974,059
42	2011	24	-	53,875	-	-	-	53,875	-	-	22,027,934
43	2012	23	-	25,559	(27,959)	-	53,760	79,318	(27,959)	-	22,079,293
44	2013	22	-	-	(3,035,784)	-	540,953	540,953	(3,035,784)	-	19,584,462
45	2014	21	-	-	(4,743,782)	-	21,199,234	21,199,234	(4,743,782)	-	36,039,914
46	Total		\$ 20,979,599	\$ 3,888,379	\$ (10,622,011)	\$ (10,622,011)	\$ 21,793,947	\$ 46,661,925	\$ (10,622,011)	\$ -	\$ 677,238,996
47	Major Additions/Retirements										
48	2013		\$ 540,953	\$ (3,035,784)							
49	2014		21,199,234	(4,743,782)							
50											
51											
52	Routine Activity										
53	Historical Interim Activity			0.58%	-0.42%						
54	Forecast Interim Activity			0.00%	-0.42%						
55	2015	20									
56	2016	19							(151,263)		35,888,651
57	2017	18							(150,629)		35,738,022
58	2018	17							(149,996)		35,588,026
59	2019	16							(149,367)		35,438,659
60	2020	15							(148,740)		35,289,919
61	2021	14							(148,116)		35,141,804
62	2022	13							(147,494)		34,994,310
63	2023	12							(146,875)		34,847,435
64	2024	11							(146,258)		34,701,176
65	2025	10							(145,645)		34,555,532
									(145,033)		34,410,499

Major Additions**

Major Retirements

The Empire District Electric Company

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	1970
Retirement Date	2035
Service Life, Yrs	65

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Asbury Plant

Historical and Forecast Plant Additions & Balances

Account: 314 Turbogenerator Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year Retirements	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year				Advance	Additions	Retirements		
			Balance	Additions	Retirements		Additions				
66	2026	9						-	(144,425)		34,266,074
67	2027	8						-	(143,818)		34,122,256
68	2028	7						-	(143,215)		33,979,041
69	2029	6						-	(142,614)		33,836,427
70	2030	5						-	(142,015)		33,694,412
71	2031	4						-	(141,419)		33,552,993
72	2032	3						-	(140,826)		33,412,167
73	2033	2						-	(140,234)		33,271,933
74	2034	1						-	(139,646)		33,132,287
75	2035	0								(33,132,287)	-
							\$ -	\$ 46,661,925	\$ (13,529,638)		\$ 1,367,100,618

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	46,661,925
Forecast Additions	-
Total Additions	46,661,925
Gross Salvage Value	1,656,614
Less Cost of Removal	3,313,229
Net Salvage Value	(1,656,614)
Total to be Recovered	48,318,540

Forecast Plant Balances 1,367,100,618

Whole Life Accrual Rate 3.53%

Cost of Removal Accrual Rate 0.24%

Whole Life Accrual Rate (Excluding Cost of Removal) 3.29%

Depreciable Service Life, years 28.3

Remaining Life Depreciation Rate Calculation

Account Balance - 12/31/14	36,039,914
Forecast Additions	-
Gross Salvage Value	1,656,614
Less Cost of Removal	3,313,229
Net Salvage Value	(1,656,614)

Depreciation Reserve Balance 12/31/14 (3,879,472)

Forecast Total Remaining Life Balance 33,817,057

Forecast Plant Balances 689,861,622

Remaining Life Accrual Rate 4.90%

Garren Proposed

Annual Accrual

1,690,852.86

4.69%

The Empire District Electric Company
Unit Property Depreciation Rate Analysis
Unit Property: Steam Production, Asbury Plant

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	1970
Retirement Date	2035
Service Life, Yrs	65

Historical and Forecast Plant Additions & Balances
Account: 315 Accessory Electric Equipment

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements			
			Balance	Additions	Retirements	Retirements	Additions					
1	1970	65	1,382,577	31,225	-	(257,424)	-	1,413,802	-	-	1,413,802	
2	1971	64	-	-	-	-	-	-	-	-	1,413,802	
3	1972	63	-	-	-	-	-	-	-	-	1,413,802	
4	1973	62	-	-	-	-	-	-	-	-	1,413,802	
5	1974	61	4,334	-	-	-	-	4,334	-	-	1,418,136	
6	1975	60	-	-	-	-	-	-	-	-	1,418,136	
7	1976	59	-	-	-	-	-	-	-	-	1,418,136	
8	1977	58	-	-	-	-	-	-	-	-	1,418,136	
9	1978	57	-	-	-	-	-	-	-	-	1,418,136	
10	1979	56	-	-	-	-	-	-	-	-	1,418,136	
11	1980	55	736	-	-	-	-	736	-	-	1,418,872	
12	1981	54	2,375	-	-	-	-	2,375	-	-	1,421,247	
13	1982	53	-	-	-	-	-	-	-	-	1,421,247	
14	1983	52	-	-	-	-	-	-	-	-	1,421,247	
15	1984	51	-	-	-	-	-	-	-	-	1,421,247	
16	1985	50	-	-	-	-	-	-	-	-	1,421,247	
17	1986	49	836,455	-	-	(40,896)	-	836,455	-	-	2,257,702	
18	1987	48	7,082	-	-	-	-	7,082	-	-	2,264,784	
19	1988	47	6,227	-	-	-	-	6,227	-	-	2,271,011	
20	1989	46	-	-	-	-	-	-	-	-	2,271,011	
21	1990	45	-	-	-	-	-	-	-	-	2,271,011	
22	1991	44	-	-	-	-	-	-	-	-	2,271,011	
23	1992	43	-	-	-	-	-	-	-	-	2,271,011	
24	1993	42	3,638	-	-	-	-	3,638	-	-	2,274,649	
25	1994	41	-	-	-	-	-	-	-	-	2,274,649	
26	1995	40	10,190	-	-	-	-	10,190	-	-	2,284,839	
27	1996	39	37,644	-	-	(37,644)	-	37,644	-	-	2,322,483	
28	1997	38	15,577	-	-	-	-	15,577	-	-	2,338,060	
29	1998	37	7,290	-	-	-	-	7,290	-	-	2,345,350	
30	1999	36	-	-	-	-	-	-	-	-	2,345,350	
31	2000	35	-	-	-	-	-	-	-	-	2,345,350	
32	2001	34	-	-	-	-	-	-	-	-	2,345,350	
33	2002	33	-	-	-	-	-	-	-	-	2,345,350	
34	2003	32	-	-	-	-	-	-	-	-	2,345,350	
35	2004	31	-	-	-	-	-	-	-	-	2,345,350	
36	2005	30	-	-	-	-	-	-	-	-	2,345,350	
37	2006	29	-	-	-	-	-	-	-	-	2,345,350	
38	2007	28	-	11,085	(1,705)	-	-	11,085	(1,705)	-	2,354,730	
39	2008	27	-	-	-	-	-	-	-	1,852,342	4,207,072	
40	2009	26	-	2,620,194	-	-	(0)	2,620,194	-	-	6,827,266	
41	2010	25	-	10,087	(89,408)	-	-	10,087	(89,408)	-	6,747,944	
42	2011	24	-	-	-	-	-	-	-	-	6,747,944	
43	2012	23	-	25,181	(38,352)	-	-	25,181	(38,352)	-	6,734,773	
44	2013	22	-	28,341	(38,673)	-	597,427	625,767	(38,673)	-	7,321,867	
45	2014	21	-	-	(167,827)	-	-	-	(167,827)	-	7,154,041	
46	Total		\$ 2,314,125	\$ 2,726,112	\$ (335,965)	\$ (335,965)	\$ 597,427	\$ 5,637,663	\$ (335,965)	\$ 1,852,342	\$ 119,265,139	
47	Major Additions/Retirements											
48	2009			\$ 2,620,194								
49	2010				\$ (89,408)							
50	2013			\$ 597,427								
51	2014				\$ (167,827)							
52	Routine Activity											
53	Historical Interim Activity											
54	Forecast Interim Activity											
					0.09%	-0.07%						
					0.00%	-0.07%						
							Major Additions**		Major Retirements			
55	2015	20						-	(4,723)		7,149,318	
56	2016	19						-	(4,719)		7,144,599	
57	2017	18						-	(4,716)		7,139,882	
58	2018	17						-	(4,713)		7,135,169	
59	2019	16						-	(4,710)		7,130,459	
60	2020	15						-	(4,707)		7,125,752	
61	2021	14						-	(4,704)		7,121,048	
62	2022	13						-	(4,701)		7,116,347	
63	2023	12						-	(4,698)		7,111,650	
64	2024	11						-	(4,695)		7,106,955	

The Empire District Electric Company

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	1970
Retirement Date	2035
Service Life, Yrs	65

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Asbury Plant

Historical and Forecast Plant Additions & Balances

Account: 315 Accessory Electric Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]			
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*			
			Transaction Year			Vintage Year	Advance	Additions	Retirements					
			Balance	Additions	Retirements	Retirements	Additions							
65	2025	10						-	(4,691)		7,102,264			
66	2026	9						-	(4,688)		7,097,575			
67	2027	8						-	(4,685)		7,092,890			
68	2028	7						-	(4,682)		7,088,208			
69	2029	6						-	(4,679)		7,083,529			
70	2030	5						-	(4,676)		7,078,853			
71	2031	4						-	(4,673)		7,074,180			
72	2032	3						-	(4,670)		7,069,510			
73	2033	2						-	(4,667)		7,064,843			
74	2034	1						-	(4,664)		7,060,180			
75	2035	0								(7,060,180)	-			
											\$ -	\$ 5,637,663	\$ (429,826)	\$ 261,358,349

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	5,637,663
Forecast Additions	-
Total Additions	5,637,663
Gross Salvage Value	353,009
Less Cost of Removal	706,018
Net Salvage Value	(353,009)
Total to be Recovered	5,990,672

Forecast Plant Balances 261,358,349

Whole Life Accrual Rate 2.29%

Cost of Removal Accrual Rate 0.27%

Whole Life Accrual Rate (Excluding Cost of Removal) 2.02%

Depreciable Service Life, years 43.6

Remaining Life Depreciation Rate Calculation

Account Balance - 12/31/14	7,154,041
Forecast Additions	-
Gross Salvage Value	353,009
Less Cost of Removal	706,018
Net Salvage Value	(353,009)

Depreciation Reserve Balance 12/31/14 (2,195,678)

Forecast Total Remaining Life Balance 5,311,372

Forecast Plant Balances 142,093,210

Remaining Life Accrual Rate 3.74%

Garren Proposed Annual Accrual

265,568.60

3.71%

The Empire District Electric Company

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	1970
Retirement Date	2035
Service Life, Yrs	65

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Asbury Plant

Historical and Forecast Plant Additions & Balances

Account: 316 Miscellaneous Plant Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	1970	65	378,805	-	-	(86,416)	-	378,805	-	-	378,805
2	1971	64	5,008	-	-	(4,906)	-	5,008	-	-	383,813
3	1972	63	6,698	-	-	(2,998)	-	6,698	-	-	390,511
4	1973	62	9,550	-	-	(5,148)	-	9,550	-	-	400,061
5	1974	61	8,466	-	-	(319)	-	8,466	-	-	408,527
6	1975	60	11,191	-	-	(232)	-	11,191	-	-	419,718
7	1976	59	9,438	-	-	-	-	9,438	-	-	429,156
8	1977	58	4,645	-	-	(473)	-	4,645	-	-	433,801
9	1978	57	4,158	-	-	(862)	-	4,158	-	-	437,959
10	1979	56	10,249	-	-	-	-	10,249	-	-	448,208
11	1980	55	10,393	-	-	-	-	10,393	-	-	458,601
12	1981	54	28,348	-	-	(15,503)	-	28,348	-	-	486,949
13	1982	53	20,435	-	-	(12,295)	-	20,435	-	-	507,384
14	1983	52	1,916	-	-	-	-	1,916	-	-	509,300
15	1984	51	5,070	-	-	-	-	5,070	-	-	514,370
16	1985	50	8,126	-	-	-	-	8,126	-	-	522,496
17	1986	49	58,491	-	-	(1,582)	-	58,491	-	-	580,987
18	1987	48	60,920	-	-	(318)	-	60,920	-	-	641,907
19	1988	47	57,101	-	-	-	-	57,101	-	-	699,008
20	1989	46	139,742	-	-	(782)	-	139,742	-	-	838,750
21	1990	45	4,102	-	-	-	-	4,102	-	-	842,852
22	1991	44	4,845	-	-	-	-	4,845	-	-	847,697
23	1992	43	77,564	-	-	-	-	77,564	-	-	925,261
24	1993	42	54,920	-	-	(794)	-	54,920	-	-	980,181
25	1994	41	38,387	-	-	(21,620)	-	38,387	-	-	1,018,568
26	1995	40	73,167	-	-	(12,458)	-	73,167	-	-	1,091,735
27	1996	39	22,810	-	-	(2,682)	-	22,810	-	-	1,114,545
28	1997	38	117,747	-	-	(20,426)	-	117,747	-	-	1,232,292
29	1998	37	102,928	-	-	(52,570)	-	102,928	-	-	1,335,220
30	1999	36	-	78,705	(15,503)	-	-	78,705	(15,503)	-	1,398,422
31	2000	35	-	69,546	(4,094)	-	-	69,546	(4,094)	-	1,463,874
32	2001	34	-	60,689	-	(16,402)	-	60,689	-	-	1,524,563
33	2002	33	-	13,953	-	(0)	-	13,953	-	-	1,538,516
34	2003	32	-	14,273	-	(5,988)	-	14,273	-	-	1,552,789
35	2004	31	-	16,876	(53,043)	-	-	16,876	(53,043)	-	1,516,622
36	2005	30	-	42,810	-	-	-	42,810	-	-	1,559,432
37	2006	29	-	5,234	-	-	-	5,234	-	-	1,564,666
38	2007	28	-	146,257	(20,000)	(75,604)	0	146,258	(20,000)	-	1,690,924
39	2008	27	-	329,743	-	-	(0)	329,743	-	-	2,020,666
40	2009	26	-	121,705	-	-	(0)	121,705	-	-	2,142,371
41	2010	25	-	32,678	(21,094)	(14,150)	-	32,678	(21,094)	-	2,153,955
42	2011	24	-	10,965	(9,703)	-	-	10,965	(9,703)	-	2,155,218
43	2012	23	-	183,921	(42,043)	-	64,616	248,538	(42,043)	-	2,361,713
44	2013	22	-	1,433	-	-	154,950	156,383	-	-	2,518,096
45	2014	21	-	-	(225,794)	-	(1,460)	(1,460)	(225,794)	-	2,290,843
46	Total		\$ 1,335,220	\$ 1,128,788	\$ (391,273)	\$ (354,529)	\$ 218,107	\$ 2,682,116	\$ (391,273)	\$ -	\$ 48,731,332
47	Major Additions/Retirements										
48	2008		\$	329,743							
49	2012			248,538							
50	2014				\$	(225,794)					
51											
52	Routine Activity		\$	768,615	\$	(165,479)					
53	Historical Interim Activity			1.58%		-0.34%					
54	Forecast Interim Activity			0.00%		-0.34%					
55	2015	20									
56	2016	19							(7,779)		2,283,064
57	2017	18							(7,753)		2,275,311
58	2018	17							(7,726)		2,267,585
59	2019	16							(7,700)		2,259,884
60	2020	15							(7,674)		2,252,210
61	2021	14							(7,648)		2,244,563
62	2022	13							(7,622)		2,236,941
63	2023	12							(7,596)		2,229,345
64	2024	11							(7,570)		2,221,774
									(7,545)		2,214,230

Major Additions**

Major Retirements

The Empire District Electric Company

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	1970
Retirement Date	2035
Service Life, Yrs	65

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Asbury Plant

Historical and Forecast Plant Additions & Balances

Account: 316 Miscellaneous Plant Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
65	2025	10						-	(7,519)		2,206,711
66	2026	9						-	(7,493)		2,199,217
67	2027	8						-	(7,468)		2,191,749
68	2028	7						-	(7,443)		2,184,307
69	2029	6						-	(7,417)		2,176,889
70	2030	5						-	(7,392)		2,169,497
71	2031	4						-	(7,367)		2,162,130
72	2032	3						-	(7,342)		2,154,788
73	2033	2						-	(7,317)		2,147,471
74	2034	1						-	(7,292)		2,140,179
75	2035	0								(2,140,179)	-
								\$ -	\$ 2,682,116	\$ (541,937)	\$ 92,949,178

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	2,682,116
Forecast Additions	-
Total Additions	2,682,116
Gross Salvage Value	107,009
Less Cost of Removal	214,018
Net Salvage Value	(107,009)
Total to be Recovered	2,789,125

Forecast Plant Balances 92,949,178

Whole Life Accrual Rate 3.00%

Cost of Removal Accrual Rate 0.23%

Whole Life Accrual Rate (Excluding Cost of Removal) 2.77%

Depreciable Service Life, years 33.3

Remaining Life Depreciation Rate Calculation

Account Balance - 12/31/14	2,290,843
Forecast Additions	-
Gross Salvage Value	107,009
Less Cost of Removal	214,018
Net Salvage Value	(107,009)

Depreciation Reserve Balance 12/31/14 (961,930)

Forecast Total Remaining Life Balance 1,435,922

Forecast Plant Balances 44,217,846

Remaining Life Accrual Rate 3.25%

Garren Proposed Annual Accrual

71,796.09

3.13%

Summary by Plant
 The Empire District Electric Company
Energy Center Combustion Turbine

Account	Description	Direct Investment 2014\$	Depreciation Rate
341	Structures & Improvements	2,134,901	0.99%
342	Fuel Holders, Producers & Accessories	1,290,086	0.00%
343	Prime Movers	27,798,738	3.09%
344	Generators	4,737,701	0.00%
345	Accessory Electric Equipment	2,248,690	4.70%
346	Misc Power Equipment	1,813,312	0.00%
Total		40,023,428	2.46% remaining life weighted average rate

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, Energy Center Combustion Turbine	Install Date	1978
	Retirement Date	2026
	Service Life, Yrs	48

Historical and Forecast Plant Additions & Balances
Account: 341 Structures & Improvements

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year			Vintage Year	Advance	Additions	Retirements			
			Balance	Additions	Retirements	Retirements	Additions					
1	1977	49	763	-	-	-	-	763	-	-	763	
2	1978	48	1,453,319	-	-	(13,921)	-	1,453,319	-	-	1,454,082	
3	1979	47	-	-	-	-	-	-	-	-	1,454,082	
4	1980	46	-	-	-	-	-	-	-	-	1,454,082	
5	1981	45	227,761	-	-	(11,365)	-	227,761	-	-	1,681,843	
6	1982	44	1,369	-	-	-	-	1,369	-	-	1,683,212	
7	1983	43	-	-	-	-	-	-	-	-	1,683,212	
8	1984	42	-	-	-	-	-	-	-	-	1,683,212	
9	1985	41	-	-	-	-	-	-	-	-	1,683,212	
10	1986	40	-	-	-	-	-	-	-	-	1,683,212	
11	1987	39	-	-	-	-	-	-	-	-	1,683,212	
12	1988	38	-	-	-	-	-	-	-	-	1,683,212	
13	1989	37	-	-	-	-	-	-	-	-	1,683,212	
14	1990	36	-	-	-	-	-	-	-	-	1,683,212	
15	1991	35	-	-	-	-	-	-	-	-	1,683,212	
16	1992	34	-	-	-	-	-	-	-	-	1,683,212	
17	1993	33	-	-	-	-	-	-	-	-	1,683,212	
18	1994	32	1,786	-	-	-	-	1,786	-	-	1,684,998	
19	1995	31	-	-	-	-	-	-	-	-	1,684,998	
20	1996	30	-	-	-	-	-	-	-	-	1,684,998	
21	1997	29	11,045	-	-	-	-	11,045	-	-	1,696,043	
22	1998	28	39,665	-	-	-	-	39,665	-	-	1,735,708	
23	1999	27	-	113,958	-	-	-	113,958	-	-	1,849,666	
24	2000	26	-	35,111	-	-	-	35,111	-	-	1,884,777	
25	2001	25	-	-	-	-	-	-	-	-	1,884,777	
26	2002	24	-	-	-	-	-	-	-	-	1,884,777	
27	2003	23	-	-	(1,657)	-	-	-	(1,657)	-	1,883,120	
28	2004	22	-	50,612	-	-	-	50,612	-	-	1,933,732	
29	2005	21	-	-	-	-	-	-	-	-	1,933,732	
30	2006	20	-	-	-	-	-	-	-	-	1,933,732	
31	2007	19	-	8,819	-	-	-	8,819	-	-	1,942,551	
31	2008	18	-	5,705	-	-	-	5,705	-	-	1,948,256	
32	2009	17	-	-	-	-	-	-	-	-	1,948,256	
33	2010	16	-	11,345	-	-	-	11,345	-	-	1,959,601	
34	2011	15	-	5,095	(23,057)	-	-	5,095	(23,057)	-	1,941,639	
35	2012	14	-	10,381	-	-	-	10,381	-	-	1,952,020	
36	2013	13	-	-	-	-	176,966	176,966	-	-	2,128,986	
37	2014	12	-	-	(572)	-	6,487	6,487	(572)	-	2,134,901	
38	Total		\$ 1,735,708	\$ 241,026	\$ (25,286)	\$ (25,286)	\$ 183,453	\$ 2,160,187	\$ (25,286)	\$ -	\$ 65,874,664	
39	Major Additions/Retirements											
40												
41												
42												
43												
44	Routine Activity		\$	424,479	\$	(25,286)						
45	Historical Interim Activity			0.64%		-0.04%						
46	Forecast Interim Activity			0.00%		-0.04%						
							<u>Major Additions**</u>					
47	2015	11						-	(819)		2,134,081	
48	2016	10						-	(819)		2,133,262	
49	2017	9						-	(819)		2,132,443	
50	2018	8						-	(819)		2,131,625	
51	2019	7						-	(818)		2,130,807	
52	2020	6						-	(818)		2,129,989	
53	2021	5						-	(818)		2,129,171	
54	2022	4						-	(817)		2,128,354	
55	2023	3	UNIT 1 RETIRES 2023					-	(817)		2,127,537	
56	2024	2						-	(817)		2,126,720	
57	2025	1						-	(816)		2,125,904	
58	2026	0								(2,125,904)	-	
							\$ 2,160,187	\$ (34,283)			\$ 89,304,556	

* Through vintage year 1999 the balances are 1999 remaining plant balances.
** From 2015 capital budget

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, Energy Center Combustion Turbine	Install Date	1978
	Retirement Date	2026
	Service Life, Yrs	48

Historical and Forecast Plant Additions & Balances
Account: 341 Structures & Improvements

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Advance		Additions	Retirements			
			Balance	Additions	Retirements	Retirements			Additions		

Whole Life Depreciation Rate Calculation

Historical Additions	2,160,187
Forecast Additions	-
Total Additions	2,160,187
Gross Salvage Value	170,072
Less Cost of Removal	212,590
Net Salvage Value	(42,518)
Total to be Recovered	2,202,705

Forecast Plant Balances 89,304,556

Whole Life Accrual Rate	2.47%
Cost of Removal Accrual Rate	0.24%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.23%

Depreciable Service Life, years 40.5

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	2,134,901
Forecast Additions	-
Gross Salvage Value	170,072
Less Cost of Removal	212,590
Net Salvage Value	(42,518)

Depreciation Reserve Balance 12/31/14 (1,945,178)

Garren Proposed Annual Accrual

Forecast Total Remaining Life Balance	232,241	21,112.78
Forecast Plant Balances	23,429,892	
Remaining Life Accrual Rate	0.99%	0.99%

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, Energy Center Combustion Turbine	Install Date	1978
	Retirement Date	2026
	Service Life, Yrs	48

Historical and Forecast Plant Additions & Balances
Account: 342 Fuel Holders, Producers & Accessories

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year			Vintage Year	Advance	Additions	Retirements			
			Balance	Additions	Retirements	Retirements	Additions					
1	1977	49	-	-	-	-	-	-	-	-		
2	1978	48	877,616	-	-	(1,058)	-	877,616	-	877,616		
3	1979	47	-	-	-	-	-	-	-	877,616		
4	1980	46	-	-	-	-	-	-	-	877,616		
5	1981	45	98,049	-	-	(96,303)	-	98,049	-	975,665		
6	1982	44	1,310	-	-	-	-	1,310	-	976,975		
7	1983	43	489	-	-	-	-	489	-	977,464		
8	1984	42	-	-	-	-	-	-	-	977,464		
9	1985	41	-	-	-	-	-	-	-	977,464		
10	1986	40	-	-	-	-	-	-	-	977,464		
11	1987	39	4,948	-	-	-	-	4,948	-	982,412		
12	1988	38	-	-	-	-	-	-	-	982,412		
13	1989	37	-	-	-	-	-	-	-	982,412		
14	1990	36	-	-	-	-	-	-	-	982,412		
15	1991	35	-	-	-	-	-	-	-	982,412		
16	1992	34	-	-	-	-	-	-	-	982,412		
17	1993	33	-	-	-	-	-	-	-	982,412		
18	1994	32	-	-	-	-	-	-	-	982,412		
19	1995	31	183,052	-	-	-	-	183,052	-	1,165,464		
20	1996	30	-	-	-	-	-	-	-	1,165,464		
21	1997	29	-	-	-	-	-	-	-	1,165,464		
22	1998	28	-	-	-	-	-	-	-	1,165,464		
23	1999	27	-	-	-	-	-	-	-	1,165,464		
24	2000	26	-	42,527	-	-	-	42,527	-	1,207,991		
25	2001	25	-	-	-	-	-	-	-	1,207,991		
26	2002	24	-	-	-	-	-	-	-	1,207,991		
27	2003	23	-	1,363	-	-	-	1,363	-	1,209,354		
28	2004	22	-	-	-	-	-	-	-	1,209,354		
29	2005	21	-	78,675	-	-	-	78,675	-	1,288,029		
30	2006	20	-	36,643	-	-	-	36,643	-	1,324,672		
31	2007	19	-	-	-	-	-	-	-	1,324,672		
31	2008	18	-	-	-	-	-	-	-	1,324,672		
32	2009	17	-	62,775	-	-	(0)	62,775	-	1,387,447		
33	2010	16	-	-	-	-	-	-	-	1,387,447		
34	2011	15	-	-	(96,303)	-	-	-	(96,303)	1,291,143		
35	2012	14	-	-	-	-	-	-	-	1,291,143		
36	2013	13	-	-	-	-	-	-	-	1,291,143		
37	2014	12	-	-	(1,058)	-	-	-	(1,058)	1,290,086		
38	Total		\$ 1,165,464	\$ 221,983	\$ (97,361)	\$ (97,361)	\$ (0)	\$ 1,387,447	\$ (97,361)	\$ -	\$ 41,425,095	
39	Major Additions/Retirements											
40												
41												
42												
43												
44	Routine Activity			\$ 221,983	\$ (97,361)							
45	Historical Interim Activity			0.54%	-0.24%							
46	Forecast Interim Activity			0.00%	-0.24%							
Major Additions**												
47	2015	11						-	(3,032)		1,287,054	
48	2016	10						-	(3,025)		1,284,029	
49	2017	9						-	(3,018)		1,281,011	
50	2018	8						-	(3,011)		1,278,000	
51	2019	7						-	(3,004)		1,274,997	
52	2020	6						-	(2,997)		1,272,000	
53	2021	5						-	(2,990)		1,269,010	
54	2022	4						-	(2,983)		1,266,028	
55	2023	3	UNIT 1 RETIRES 2023					-	(2,976)		1,263,052	
56	2024	2						-	(2,969)		1,260,084	
57	2025	1						-	(2,962)		1,257,122	
58	2026	0						-	(2,955)		1,254,167	
										(1,257,122)		
										\$ 1,387,447	\$ (130,324)	\$ 55,417,483

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, Energy Center Combustion Turbine	Install Date	1978
	Retirement Date	2026
	Service Life, Yrs	48

Historical and Forecast Plant Additions & Balances
Account: 342 Fuel Holders, Producers & Accessories

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year				Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				

Whole Life Depreciation Rate Calculation

Historical Additions	1,387,447
Forecast Additions	-
Total Additions	1,387,447
Gross Salvage Value	100,570
Less Cost of Removal	125,712
Net Salvage Value	(25,142)
Total to be Recovered	1,412,589

Forecast Plant Balances 55,417,483

Whole Life Accrual Rate	2.55%
Cost of Removal Accrual Rate	0.23%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.32%

Depreciable Service Life, years 39.2

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	1,290,086
Forecast Additions	-
Gross Salvage Value	100,570
Less Cost of Removal	125,712
Net Salvage Value	(25,142)

Depreciation Reserve Balance 12/31/14 (1,565,630)

Garren Proposed Annual Accrual

Forecast Total Remaining Life Balance	(250,402)	(22,763.80)
Forecast Plant Balances	13,992,388	
Remaining Life Accrual Rate	-1.79%	-1.8%

The Empire District Electric Company	Gross Salvage	10%
	Cost of Removal	5%
Unit Property Depreciation Rate Analysis	Net Salvage	5%
Unit Property: Other Production, Energy Center Combustion Turbine	Install Date	1978
	Retirement Date	2026
	Service Life, Yrs	48

Historical and Forecast Plant Additions & Balances
Account: 343 Prime Movers

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	1977	49	-	-	-	-	-	-	-	-	
2	1978	48	7,750,964	-	-	(237,522)	-	7,750,964	-	7,750,964	
3	1979	47	-	-	-	-	-	-	-	7,750,964	
4	1980	46	-	-	-	-	-	-	-	7,750,964	
5	1981	45	8,758,466	-	-	(742,138)	-	8,758,466	-	16,509,430	
6	1982	44	-	-	-	-	-	-	-	16,509,430	
7	1983	43	-	-	-	-	-	-	-	16,509,430	
8	1984	42	-	-	-	-	-	-	-	16,509,430	
9	1985	41	-	-	-	-	-	-	-	16,509,430	
10	1986	40	7,094	-	-	-	-	7,094	-	16,516,524	
11	1987	39	-	-	-	-	-	-	-	16,516,524	
12	1988	38	2,027	-	-	-	-	2,027	-	16,518,551	
13	1989	37	-	-	-	-	-	-	-	16,518,551	
14	1990	36	9,866	-	-	-	-	9,866	-	16,528,417	
15	1991	35	2,422	-	-	-	-	2,422	-	16,530,839	
16	1992	34	-	-	-	-	-	-	-	16,530,839	
17	1993	33	-	-	-	-	-	-	-	16,530,839	
18	1994	32	-	-	-	-	-	-	-	16,530,839	
19	1995	31	892,976	-	-	-	-	892,976	-	17,423,815	
20	1996	30	3,257,394	-	-	(752,122)	-	3,257,394	-	20,681,209	
21	1997	29	716,643	-	-	(644,122)	-	716,643	-	21,397,852	
22	1998	28	17,178	-	-	-	-	17,178	-	21,415,030	
23	1999	27	-	4,787,367	(52,189)	(890,172)	-	4,787,367	(52,189)	26,150,208	
24	2000	26	-	-	(138,000)	-	-	-	(138,000)	26,012,208	
25	2001	25	-	-	-	-	-	-	-	26,012,208	
26	2002	24	-	13,736	-	-	-	13,736	-	26,025,944	
27	2003	23	-	-	(387,855)	-	-	-	(387,855)	25,638,089	
28	2004	22	-	787,282	-	-	-	787,282	-	26,425,371	
29	2005	21	-	-	(166,824)	-	-	-	(166,824)	26,258,547	
30	2006	20	-	-	(740,497)	-	-	-	(740,497)	25,518,050	
31	2007	19	-	1,232,771	(629,194)	-	-	1,232,771	(629,194)	26,121,627	
31	2008	18	-	-	(14,928)	-	-	-	(14,928)	26,106,699	
32	2009	17	-	25,188	-	-	0	25,188	-	26,131,887	
33	2010	16	-	1,243,520	(2,164)	-	-	1,243,520	(2,164)	27,373,244	
34	2011	15	-	93,893	(1,069,255)	-	-	93,893	(1,069,255)	26,397,882	
35	2012	14	-	-	-	-	423,720	423,720	-	26,821,602	
36	2013	13	-	-	-	-	249,795	249,795	-	27,071,397	
37	2014	12	-	-	(65,171)	-	846,032	846,032	(65,171)	27,998,738	
38	Total		\$ 21,415,030	\$ 8,183,758	\$ (3,266,077)	\$ (3,266,077)	\$ 1,519,547	\$ 31,118,335	\$ (3,266,077)	\$ (53,520)	\$ 757,303,572
39	Major Additions/Retirements										
40	1999			\$ 4,787,367							
41	2007			\$ 1,232,771	\$ (629,194)						
42	2010			\$ 1,243,520							
43	2011				\$ (1,069,255)						
44	Routine Activity			\$ 2,439,646	\$ (1,567,628)						
45	Historical Interim Activity				0.32%	-0.21%					
46	Forecast Interim Activity				0.00%	-0.21%					
								Major Additions**			
47	2015	11						-	(57,544)		27,741,195
48	2016	10						-	(57,425)		27,683,770
49	2017	9					3,050,000	-	(57,306)		30,676,464
50	2018	8						-	(63,501)		30,612,964
51	2019	7						-	(63,369)		30,549,594
52	2020	6						-	(63,238)		30,486,356
53	2021	5						-	(63,107)		30,423,249
54	2022	4						-	(62,977)		30,360,273
55	2023	3	UNIT 1 RETIRES 2023					-	(62,846)	7,750,964	38,048,391
56	2024	2						-	(78,761)		37,969,630
57	2025	1						-	(78,598)		37,891,032
58	2026	0								(37,891,032)	-
								\$ 31,118,335	\$ (3,974,747)		\$ 1,109,746,491

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

The Empire District Electric Company	Gross Salvage	10%
	Cost of Removal	5%
Unit Property Depreciation Rate Analysis	Net Salvage	5%
Unit Property: Other Production, Energy Center Combustion Turbine	Install Date	1978
	Retirement Date	2026
	Service Life, Yrs	48

Historical and Forecast Plant Additions & Balances

Account: 343 Prime Movers

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year				Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions			Retirements	

Whole Life Depreciation Rate Calculation

Historical Additions	31,118,335
Forecast Additions	-
Total Additions	31,118,335
Gross Salvage Value	3,789,103
Less Cost of Removal	1,894,552
Net Salvage Value	1,894,552
Total to be Recovered	29,223,783

Forecast Plant Balances 1,109,746,491

Whole Life Accrual Rate 2.63%

Cost of Removal Accrual Rate 0.17%

Whole Life Accrual Rate (Excluding Cost of Removal) 2.46%

Depreciable Service Life, years 38.0

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	27,798,738
Forecast Additions	-
Gross Salvage Value	3,789,103
Less Cost of Removal	1,894,552
Net Salvage Value	1,894,552

Depreciation Reserve Balance 12/31/14 (16,468,237)

Garren Proposed

Forecast Total Remaining Life Balance 9,435,949

Annual Accrual

857,814

Forecast Plant Balances 352,442,919

Remaining Life Accrual Rate 2.68%

3.1%

The Empire District Electric Company Gross Salvage 10%
 Cost of Removal 5%
 Unit Property Depreciation Rate Analysis Net Salvage 5%
 Unit Property: Other Production, Energy Center Combustion Turbine Install Date 1978
 Retirement Date 2026
 Service Life, Yrs 48

Historical and Forecast Plant Additions & Balances
 Account: 344 Generators

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106 Advance Additions	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements		Additions	Retirements		
			Balance	Additions	Retirements						
1	1977	49	-	-	-	-	-	-	-	-	
2	1978	48	1,884,020	-	-	(12,000)	-	1,884,020	-	1,884,020	
3	1979	47	-	-	-	-	-	-	-	1,884,020	
4	1980	46	-	-	-	-	-	-	-	1,884,020	
5	1981	45	2,267,290	-	-	-	-	2,267,290	-	4,151,310	
6	1982	44	1,766	-	-	-	-	1,766	-	4,153,076	
7	1983	43	-	-	-	-	-	-	-	4,153,076	
8	1984	42	-	-	-	-	-	-	-	4,153,076	
9	1985	41	-	-	-	-	-	-	-	4,153,076	
10	1986	40	1,225	-	-	-	-	1,225	-	4,154,301	
11	1987	39	-	-	-	-	-	-	-	4,154,301	
12	1988	38	-	-	-	-	-	-	-	4,154,301	
13	1989	37	-	-	-	-	-	-	-	4,154,301	
14	1990	36	6,082	-	-	-	-	6,082	-	4,160,383	
15	1991	35	-	-	-	-	-	-	-	4,160,383	
16	1992	34	-	-	-	-	-	-	-	4,160,383	
17	1993	33	-	-	-	-	-	-	-	4,160,383	
18	1994	32	-	-	-	-	-	-	-	4,160,383	
19	1995	31	-	-	-	-	-	-	-	4,160,383	
20	1996	30	-	-	-	-	-	-	-	4,160,383	
21	1997	29	-	-	-	-	-	-	-	4,160,383	
22	1998	28	-	-	-	-	-	-	-	4,160,383	
23	1999	27	-	-	-	-	-	-	-	4,160,383	
24	2000	26	-	-	-	-	-	-	-	4,160,383	
25	2001	25	-	-	-	-	-	-	-	4,160,383	
26	2002	24	-	-	-	-	-	-	-	4,160,383	
27	2003	23	-	-	-	-	-	-	-	4,160,383	
28	2004	22	-	356,076	-	-	-	356,076	-	4,516,459	
29	2005	21	-	-	-	-	-	-	-	4,516,459	
30	2006	20	-	-	-	-	-	-	-	4,516,459	
31	2007	19	-	-	-	-	-	-	-	4,516,459	
31	2008	18	-	-	(12,000)	-	-	(12,000)	-	4,504,459	
32	2009	17	-	-	-	-	-	-	-	4,504,459	
33	2010	16	-	-	-	-	-	-	-	4,504,459	
34	2011	15	-	-	-	-	-	-	-	4,504,459	
35	2012	14	-	136,298	-	-	-	136,298	-	4,640,757	
36	2013	13	-	-	-	-	-	-	-	4,640,757	
37	2014	12	-	-	-	-	-	-	96,944	4,737,701	
38	Total		\$ 4,160,383	\$ 492,374	\$ (12,000)	\$ (12,000)	\$ -	\$ 4,652,757	\$ (12,000)	\$ 96,944	\$ 151,381,127

39 Major Additions/Retirements

40

41

42

43

44 Routine Activity

45 Historical Interim Activity

46 Forecast Interim Activity

\$ 492,374 \$ (12,000)
 0.33% -0.01%
 0.00% -0.01%

Major Additions**

47	2015	11	-	-	-	-	-	(376)	-	4,737,326
48	2016	10	-	-	-	-	-	(376)	-	4,736,950
49	2017	9	-	-	-	-	-	(375)	-	4,736,575
50	2018	8	-	-	-	-	-	(375)	-	4,736,199
51	2019	7	-	-	-	-	-	(375)	-	4,735,824
52	2020	6	-	-	-	-	-	(375)	-	4,735,448
53	2021	5	-	-	-	-	-	(375)	-	4,735,073
54	2022	4	-	-	-	-	-	(375)	-	4,734,698
55	2023	3	-	-	-	-	-	(375)	1,884,020	6,618,342
56	2024	2	-	-	-	-	-	(525)	-	6,617,818
57	2025	1	-	-	-	-	-	(525)	-	6,617,293
58	2026	0	-	-	-	-	-	-	(6,617,293)	
								\$ 4,652,757	\$ (16,428)	\$ 209,122,671

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	4,652,757
Forecast Additions	-
Total Additions	4,652,757
Gross Salvage Value	661,729
Less Cost of Removal	330,865
Net Salvage Value	330,865
Total to be Recovered	4,321,892

Forecast Plant Balances 209,122,671

Whole Life Accrual Rate	2.07%
Cost of Removal Accrual Rate	0.16%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.91%

Depreciable Service Life, years 48.4

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	4,737,701
Forecast Additions	-
Gross Salvage Value	661,729
Less Cost of Removal	330,865
Net Salvage Value	330,865

Depreciation Reserve Balance 12/31/14 (6,737,484)

Forecast Total Remaining Life Balance	(2,330,648)
Forecast Plant Balances	57,741,545
Remaining Life Accrual Rate	-4.04%

Garren Proposed
 Annual Accrual
 (211,877.06)

-4.5%

The Empire District Electric Company
Unit Property Depreciation Rate Analysis
Unit Property: Other Production, Energy Center Combustion Turbine

Gross Salvage	8%
Cost of Removal	10%
Net Salvage	-2%
Install Date	1978
Retirement Date	2026
Service Life, Yrs	48

Historical and Forecast Plant Additions & Balances
Account: 345 Accessory Electric Equipment

Line	Vintage Year	Vintage Age	Reported Per Books			Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year		Vintage Year Retirements		Additions	Retirements			
			Balance	Additions		Retirements			Additions	Retirements	
1	1977	49	-	-	-	-	-	-	-		
2	1978	48	258,607	-	-	-	258,607	-	258,607		
3	1979	47	-	-	-	-	-	-	258,607		
4	1980	46	-	-	-	-	-	-	258,607		
5	1981	45	63,365	-	-	-	63,365	-	321,972		
6	1982	44	-	-	-	-	-	-	321,972		
7	1983	43	-	-	-	-	-	-	321,972		
8	1984	42	-	-	-	-	-	-	321,972		
9	1985	41	-	-	-	-	-	-	321,972		
10	1986	40	-	-	-	-	-	-	321,972		
11	1987	39	-	-	-	-	-	-	321,972		
12	1988	38	-	-	-	-	-	-	321,972		
13	1989	37	-	-	-	-	-	-	321,972		
14	1990	36	-	-	-	-	-	-	321,972		
15	1991	35	-	-	-	-	-	-	321,972		
16	1992	34	-	-	-	-	-	-	321,972		
17	1993	33	-	-	-	-	-	-	321,972		
18	1994	32	-	-	-	-	-	-	321,972		
19	1995	31	-	-	-	-	-	-	321,972		
20	1996	30	-	-	-	-	-	-	321,972		
21	1997	29	-	-	-	-	-	-	321,972		
22	1998	28	-	-	-	-	-	-	321,972		
23	1999	27	-	-	-	-	-	-	321,972		
24	2000	26	-	-	-	-	-	-	321,972		
25	2001	25	-	-	-	-	-	-	321,972		
26	2002	24	-	17,443	-	-	17,443	-	339,415		
27	2003	23	-	-	-	-	-	-	339,415		
28	2004	22	-	-	-	-	-	-	339,415		
29	2005	21	-	43,425	-	-	43,425	-	382,840		
30	2006	20	-	16,545	-	-	16,545	-	399,385		
31	2007	19	-	-	-	-	-	-	399,385		
31	2008	18	-	5,342	-	-	5,342	1,687,137	2,091,864		
32	2009	17	-	-	-	-	-	-	2,091,864		
33	2010	16	-	-	-	-	-	-	2,091,864		
34	2011	15	-	-	-	-	-	-	2,091,864		
35	2012	14	-	-	-	-	-	-	2,091,864		
36	2013	13	-	-	-	-	-	-	2,091,864		
37	2014	12	-	-	-	200,251	200,251	(43,425)	2,248,690		
38	Total		\$ 321,972	\$ 82,755	\$ -	\$ -	\$ 200,251	\$ 604,978	\$ -	\$ 1,643,712	\$ 24,536,962
39	Major Additions/Retirements										
40											
41											
42											
43											
44	Routine Activity		\$ 283,006	\$ -							
45	Historical Interim Activity			1.15%	0.00%						
46	Forecast Interim Activity			0.00%	0.00%						
							Major Additions**				
47	2015	11					-	-			2,248,690
48	2016	10					-	-			2,248,690
49	2017	9					-	-			2,248,690
50	2018	8					-	-			2,248,690
51	2019	7					-	-			2,248,690
52	2020	6					-	-			2,248,690
53	2021	5					-	-			2,248,690
54	2022	4					-	-			2,248,690
55	2023	3	UNIT 1 RETIRES 2023				-	-			2,248,690
56	2024	2					-	-			2,248,690
57	2025	1					-	-			2,248,690
58	2026	0					-	-			2,248,690
									(2,248,690)		-
							\$ 604,978	\$ -			\$ 49,272,552

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, Energy Center Combustion Turbine	Install Date	1978
	Retirement Date	2026
	Service Life, Yrs	48

Historical and Forecast Plant Additions & Balances
Account: 345 Accessory Electric Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Advance		Additions	Retirements			
			Balance	Additions	Retirements	Retirements			Additions		

Whole Life Depreciation Rate Calculation

Historical Additions	604,978
Forecast Additions	-
Total Additions	604,978
Gross Salvage Value	179,895
Less Cost of Removal	224,869
Net Salvage Value	(44,974)
Total to be Recovered	649,952

Forecast Plant Balances 49,272,552

Whole Life Accrual Rate 1.32%

Cost of Removal Accrual Rate 0.46%

Whole Life Accrual Rate (Excluding Cost of Removal) 0.86%

Depreciable Service Life, years 75.8

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	2,248,690
Forecast Additions	-
Gross Salvage Value	179,895
Less Cost of Removal	224,869
Net Salvage Value	(44,974)

Depreciation Reserve Balance 12/31/14 (1,129,918)

Garren Proposed

Forecast Total Remaining Life Balance 1,163,746

Annual Accrual

Forecast Plant Balances 24,735,590

Remaining Life Accrual Rate 4.70%

105,795.10

4.70%

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, Energy Center Combustion Turbine	Install Date	1978
	Retirement Date	2026
	Service Life, Yrs	48

Historical and Forecast Plant Additions & Balances
Account: 346 Misc Power Equipment

Line	Vintage Year	Vintage Age	Reported Per Books			Account 106		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance Additions	Additions	Retirements		
			Balance	Additions	Retirements						
1	1977	49	-	-	-	-	-	-	-	-	
2	1978	48	47,757	-	-	(13,623)	-	47,757	-	47,757	
3	1979	47	-	-	-	-	-	-	-	47,757	
4	1980	46	356	-	-	(356)	-	356	-	48,113	
5	1981	45	990,166	-	-	(4,965)	-	990,166	-	1,038,279	
6	1982	44	8,388	-	-	(1,311)	-	8,388	-	1,046,667	
7	1983	43	16,388	-	-	-	-	16,388	-	1,063,055	
8	1984	42	-	-	-	-	-	-	-	1,063,055	
9	1985	41	4,078	-	-	(811)	-	4,078	-	1,067,133	
10	1986	40	2,024	-	-	-	-	2,024	-	1,069,157	
11	1987	39	6,465	-	-	(3,657)	-	6,465	-	1,075,622	
12	1988	38	7,375	-	-	(536)	-	7,375	-	1,082,997	
13	1989	37	18,665	-	-	(15,682)	-	18,665	-	1,101,662	
14	1990	36	-	-	-	-	-	-	-	1,101,662	
15	1991	35	1,587	-	-	-	-	1,587	-	1,103,249	
16	1992	34	-	-	-	-	-	-	-	1,103,249	
17	1993	33	-	-	-	-	-	-	-	1,103,249	
18	1994	32	1,899	-	-	-	-	1,899	-	1,105,148	
19	1995	31	-	-	-	-	-	-	-	1,105,148	
20	1996	30	10,526	-	-	(4,796)	-	10,526	-	1,115,674	
21	1997	29	3,913	-	-	-	-	3,913	-	1,119,587	
22	1998	28	9,903	-	-	-	-	9,903	-	1,129,490	
23	1999	27	-	8,711	-	(8,170)	-	8,711	-	1,138,201	
24	2000	26	-	35,181	-	(1,251)	-	35,181	-	1,173,382	
25	2001	25	-	-	-	-	-	-	-	1,173,382	
26	2002	24	-	48,967	-	(8,379)	-	48,967	-	1,222,349	
27	2003	23	-	48,373	(17,157)	(45,877)	-	48,373	(17,157)	1,253,565	
28	2004	22	-	14,909	-	-	-	14,909	-	1,268,474	
29	2005	21	-	52,126	-	-	-	52,126	-	1,320,600	
30	2006	20	-	20,484	-	-	-	20,484	-	1,341,084	
31	2007	19	-	15,414	-	-	0	15,414	-	1,356,498	
31	2008	18	-	9,926	-	-	-	9,926	-	1,366,424	
32	2009	17	-	357,787	(6,112)	-	(0)	357,787	(6,112)	1,718,099	
33	2010	16	-	47,179	(4,796)	-	-	47,179	(4,796)	1,760,483	
34	2011	15	-	8,545	(77,268)	-	-	8,545	(77,268)	1,691,759	
35	2012	14	-	6,138	-	-	-	6,138	-	1,697,897	
36	2013	13	-	-	-	-	21,970	21,970	-	1,719,867	
37	2014	12	-	-	(4,080)	-	97,524	97,524	(4,080)	1,813,312	
38	Total		\$ 1,129,490	\$ 673,741	\$ (109,413)	\$ (109,413)	\$ 119,494	\$ 1,922,725	\$ (109,413)	\$ -	\$ 42,753,086
39	Major Additions/Retirements										
40	2009		\$	357,787							
41	2011				(77,268)						
42	2014		\$	97,524							
43											
44	Routine Activity		\$	337,923	\$	(32,144)					
45	Historical Interim Activity			0.79%	-0.08%						
46	Forecast Interim Activity			0.00%	-0.08%						
							Major Additions**				
47	2015	11						-	(1,363)		1,811,948
48	2016	10						-	(1,362)		1,810,586
49	2017	9						-	(1,361)		1,809,225
50	2018	8						-	(1,360)		1,807,865
51	2019	7						-	(1,359)		1,806,505
52	2020	6						-	(1,358)		1,805,147
53	2021	5						-	(1,357)		1,803,790
54	2022	4						-	(1,356)		1,802,434
55	2023	3	UNIT 1 RETIRES 2023					-	(1,355)	47,757	1,848,835
56	2024	2						-	(1,390)		1,847,445
57	2025	1						-	(1,389)		1,846,056
58	2026	0								(1,846,056)	-
								\$ 1,922,725	\$ (124,425)		\$ 62,752,923

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, Energy Center Combustion Turbine	Install Date	1978
	Retirement Date	2026
	Service Life, Yrs	48

Historical and Forecast Plant Additions & Balances
Account: 346 Misc Power Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Advance		Additions	Retirements			
			Balance	Additions	Retirements	Retirements			Additions		

Whole Life Depreciation Rate Calculation

Historical Additions	1,922,725
Forecast Additions	-
Total Additions	1,922,725
Gross Salvage Value	147,685
Less Cost of Removal	184,606
Net Salvage Value	(36,921)
Total to be Recovered	1,959,646

Forecast Plant Balances 62,752,923

Whole Life Accrual Rate	3.12%
Cost of Removal Accrual Rate	0.29%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.83%

Depreciable Service Life, years 32.0

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	1,813,312
Forecast Additions	-
Gross Salvage Value	147,685
Less Cost of Removal	184,606
Net Salvage Value	(36,921)

Depreciation Reserve Balance 12/31/14	(3,163,476)	Garren Proposed
Forecast Total Remaining Life Balance	(1,313,243)	Annual Accrual
Forecast Plant Balances	19,999,837	
Remaining Life Accrual Rate	-6.57%	-6.58%

Account	Description	Direct Investment 2014\$	Depreciation Rate
341	Structures & Improvements	1,147,718	3.15%
342	Fuel Holders, Producers & Accessories	1,467,461	2.82%
343	Prime Movers	48,234,546	3.12%
344	Generators	519,289	3.20%
345	Accessory Electric Equipment	3,298,748	2.93%
346	Misc Power Equipment	1,105,378	2.73%
Total		55,773,139	3.09% remaining life weighted average rate

0
 Gross Salvage 8%
 Cost of Removal 10%
 Net Salvage -2%
 Unit Property Depreciation Rate Analysis
 Unit Property: Other Production, Install Date 2003
 Retirement Date 2043
 Service Life, Yrs 40

Historical and Forecast Plant Additions & Balances
Account: 341 Structures & Improvements

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	2003	40	-	1,106,408	-	-	-	1,106,408	-	-	1,106,408
2	2004	39	-	-	-	-	-	-	-	-	1,106,408
3	2005	38	-	-	-	-	-	-	-	-	1,106,408
4	2006	37	-	-	-	-	-	-	-	-	1,106,408
5	2007	36	-	-	-	-	-	-	-	-	1,106,408
6	2008	35	-	-	-	-	-	-	-	-	1,106,408
7	2009	34	-	-	-	-	-	-	-	-	1,106,408
8	2010	33	-	-	-	-	-	-	-	-	1,106,408
9	2011	32	-	27,476	-	-	-	27,476	-	-	1,133,884
10	2012	31	-	-	-	-	-	-	-	-	1,133,884
11	2013	30	-	-	-	-	13,834	13,834	-	-	1,147,718
12	2014	29	-	-	-	-	-	-	-	-	1,147,718
13	Total		\$ -	\$ 1,133,884	\$ -	\$ -	\$ 13,834	\$ 1,147,718	\$ -	\$ -	\$ 13,414,467
14	Major Additions/Retirements										
15	2003			\$ 1,106,408							
16											
17	Routine Activity										
18	Historical Interim Activity			\$ 27,476	\$ -						
19	Forecast Interim Activity			0.00%	0.00%						
20	2015	28									1,147,718
21	2016	27									1,147,718
22	2017	26									1,147,718
23	2018	25									1,147,718
24	2019	24									1,147,718
25	2020	23									1,147,718
26	2021	22									1,147,718
27	2022	21									1,147,718
28	2023	20									1,147,718
29	2024	19									1,147,718
30	2025	18									1,147,718
31	2026	17									1,147,718
32	2027	16									1,147,718
33	2028	15									1,147,718
34	2029	14									1,147,718
35	2030	13									1,147,718
36	2031	12									1,147,718
37	2032	11									1,147,718
38	2033	10									1,147,718
39	2034	9									1,147,718
40	2035	8									1,147,718
41	2036	7									1,147,718
42	2037	6									1,147,718
43	2038	5									1,147,718
44	2039	4									1,147,718
45	2040	3									1,147,718
46	2041	2									1,147,718
47	2042	1									1,147,718
48	2043	0							(1,147,718)		-
			\$ -	\$ 1,147,718	\$ -			\$ -			\$ 45,550,565

* Through vintage year 1999 the balances are 1999 remaining plant balances.
 ** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	1,147,718
Forecast Additions	-
Total Additions	1,147,718
Gross Salvage Value	91,817
Less Cost of Removal	114,772
Net Salvage Value	(22,954)
Total to be Recovered	1,170,672

Forecast Plant Balances 45,550,565

Whole Life Accrual Rate 2.57%
 Cost of Removal Accrual Rate 0.25%
 Whole Life Accrual Rate (Excluding Cost of Removal) 2.32%

Depreciable Service Life, years 38.9

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	1,147,718
Forecast Additions	-
Gross Salvage Value	91,817
Less Cost of Removal	114,772
Net Salvage Value	(22,954)

Depreciation Reserve Balance 12/31/14 (157,634)

Forecast Total Remaining Life Balance 1,013,039
 Forecast Plant Balances 32,136,098
 Remaining Life Accrual Rate 3.15%

Garren Proposed

Annual Accrual 36,179.95
 3.15%

0	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production,	Install Date	2003
	Retirement Date	2043
	Service Life, Yrs	40

Historical and Forecast Plant Additions & Balances
Account: 342 Fuel Holders, Producers & Accessories

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	2003	40	-	1,390,887	-	(23,725)	-	1,390,887	-	-	1,390,887
2	2004	39	-	-	-	-	-	-	-	-	1,390,887
3	2005	38	-	-	-	-	-	-	-	-	1,390,887
4	2006	37	-	-	-	-	-	-	-	-	1,390,887
5	2007	36	-	-	-	-	-	-	-	-	1,390,887
6	2008	35	-	-	-	-	-	-	-	-	1,390,887
7	2009	34	-	32,501	-	-	-	32,501	-	-	1,423,388
8	2010	33	-	-	-	-	-	-	-	-	1,423,388
9	2011	32	-	-	(23,725)	-	-	-	(23,725)	-	1,399,663
10	2012	31	-	-	-	-	-	-	-	-	1,399,663
11	2013	30	-	-	-	-	-	-	-	-	1,399,663
12	2014	29	-	-	-	-	67,798	67,798	-	-	1,467,461
13	Total		\$ -	\$ 1,423,388	\$ (23,725)	\$ (23,725)	\$ 67,798	\$ 1,491,186	\$ (23,725)	\$ -	\$ 16,858,546
14	Major Additions/Retirements										
15	2003			\$ 1,390,887							
16											
17	Routine Activity			\$ 32,501	\$ (23,725)						
18	Historical Interim Activity			0.19%	-0.14%						
19	Forecast Interim Activity			0.00%	-0.14%						
20	2015	28									
21	2016	27							(2,065)		1,465,396
22	2017	26							(2,062)		1,463,334
23	2018	25							(2,059)		1,461,274
24	2019	24							(2,056)		1,459,218
25	2020	23							(2,054)		1,457,164
26	2021	22							(2,051)		1,455,114
27	2022	21							(2,048)		1,453,066
28	2023	20							(2,045)		1,451,021
29	2024	19							(2,042)		1,448,979
30	2025	18							(2,039)		1,446,940
31	2026	17							(2,036)		1,444,904
32	2027	16							(2,033)		1,442,870
33	2028	15							(2,031)		1,440,840
34	2029	14							(2,028)		1,438,812
35	2030	13							(2,025)		1,436,787
36	2031	12							(2,022)		1,434,765
37	2032	11							(2,019)		1,432,746
38	2033	10							(2,016)		1,430,730
39	2034	9							(2,013)		1,428,717
40	2035	8							(2,011)		1,426,706
41	2036	7							(2,008)		1,424,698
42	2037	6							(2,005)		1,422,693
43	2038	5							(2,002)		1,420,691
44	2039	4							(1,999)		1,418,692
45	2040	3							(1,997)		1,416,695
46	2041	2							(1,994)		1,414,702
47	2042	1							(1,991)		1,412,711
48	2043	0							(1,988)		1,410,723
										(1,410,723)	-
			\$ -	\$ 1,491,186	\$ (80,463)						\$ 57,119,535

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	1,491,186
Forecast Additions	-
Total Additions	1,491,186
Gross Salvage Value	112,858
Less Cost of Removal	141,072
Net Salvage Value	(28,214)
Total to be Recovered	1,519,400

Forecast Plant Balances 57,119,535

Whole Life Accrual Rate	2.66%
Cost of Removal Accrual Rate	0.25%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.41%

Depreciable Service Life, years 37.6

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	1,467,461
Forecast Additions	-
Gross Salvage Value	112,858
Less Cost of Removal	141,072
Net Salvage Value	(28,214)

Depreciation Reserve Balance 12/31/14 (337,597)

Forecast Total Remaining Life Balance 1,158,079

Forecast Plant Balances 40,260,988

Remaining Life Accrual Rate 2.88%

Garren Proposed

Annual Accrual

41,359.97

2.82%

0
 Unit Property Depreciation Rate Analysis
 Unit Property: Other Production,
 Historical and Forecast Plant Additions & Balances
 Account: 343 Prime Movers

Gross Salvage	10%
Cost of Removal	5%
Net Salvage	5%
Install Date	2003
Retirement Date	2043
Service Life, Yrs	40

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements		Additions	Retirements		
			Balance	Additions	Retirements		Additions			Retirements	
1	2003	40	-	47,703,864	-	(1,082,775)	-	47,703,864	-	-	47,703,864
2	2004	39	-	-	-	-	-	-	-	-	47,703,864
3	2005	38	-	5,738	-	-	-	5,738	-	-	47,709,602
4	2006	37	-	-	-	-	-	-	-	-	47,709,602
5	2007	36	-	-	-	-	-	-	-	-	47,709,602
6	2008	35	-	-	-	-	-	-	-	-	47,709,602
7	2009	34	-	1,536,672	(1,024,044)	-	-	1,536,672	(1,024,044)	-	48,222,231
8	2010	33	-	71,046	(0)	-	-	71,046	(0)	-	48,293,277
9	2011	32	-	-	(58,731)	-	-	-	(58,731)	-	48,234,546
10	2012	31	-	-	-	-	-	-	-	-	48,234,546
11	2013	30	-	-	-	-	-	-	-	-	48,234,546
12	2014	29	-	-	-	-	-	-	-	-	48,234,546
13	Total		\$ -	\$ 49,317,321	\$ (1,082,775)	\$ (1,082,775)	\$ -	\$ 49,317,321	\$ (1,082,775)	\$ -	\$ 575,699,829

14 Major Additions/Retirements
 15 2003 \$ 47,703,864
 16 2009 \$ (1,024,044)
 17 Routine Activity \$ 1,613,456 \$ (58,731)
 18 Historical Interim Activity 0.28% -0.01%
 19 Forecast Interim Activity 0.00% -0.01%

Line	Vintage Year	Vintage Age	Major Additions**				Adjusted Transaction Year	Transfers and Adjustments	End of Year Plant Balance*		
			Balance	Additions	Retirements	Retirements					
20	2015	28	-	-	-	-	(4,921)	48,229,625			
21	2016	27	-	-	-	-	(4,920)	48,224,704			
22	2017	26	-	-	-	-	(4,920)	48,219,785			
23	2018	25	-	-	-	-	(4,919)	48,214,865			
24	2019	24	-	-	-	3,050,000	(4,919)	48,209,947			
25	2020	23	-	-	-	-	(4,918)	48,205,028			
26	2021	22	-	-	-	-	(4,918)	48,200,111			
27	2022	21	-	-	-	-	(4,917)	48,195,193			
28	2023	20	-	-	-	-	(4,917)	48,190,277			
29	2024	19	-	-	-	-	(4,916)	48,185,361			
30	2025	18	-	-	-	-	(4,916)	48,180,445			
31	2026	17	-	-	-	-	(4,915)	48,175,530			
32	2027	16	-	-	-	-	(4,915)	48,170,615			
33	2028	15	-	-	-	-	(4,914)	48,165,701			
34	2029	14	-	-	-	-	(4,914)	48,160,787			
35	2030	13	-	-	-	-	(4,913)	48,155,874			
36	2031	12	-	-	-	-	(4,913)	48,150,961			
37	2032	11	-	-	-	-	(4,912)	48,146,049			
38	2033	10	-	-	-	-	(4,912)	48,141,137			
39	2034	9	-	-	-	-	(4,911)	48,136,226			
40	2035	8	-	-	-	-	(4,911)	48,131,315			
41	2036	7	-	-	-	-	(4,910)	48,126,405			
42	2037	6	-	-	-	-	(4,910)	48,121,495			
43	2038	5	-	-	-	-	(4,909)	48,116,586			
44	2039	4	-	-	-	-	(4,909)	48,111,677			
45	2040	3	-	-	-	-	(4,908)	48,106,769			
46	2041	2	-	-	-	-	(4,908)	48,101,861			
47	2042	1	-	-	-	-	(4,907)	48,096,954			
48	2043	0	-	-	-	-	-	-	(48,096,954)	-	
								\$ 3,050,000	\$ 49,317,321	\$ (1,220,367)	\$ 1,924,271,108

* Through vintage year 1999 the balances are 1999 remaining plant balances.
 ** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	49,317,321
Forecast Additions	3,050,000
Total Additions	52,367,321
Gross Salvage Value	4,809,695
Less Cost of Removal	2,404,848
Net Salvage Value	2,404,848
Total to be Recovered	49,962,473

Forecast Plant Balances 1,924,271,108

Whole Life Accrual Rate 2.60%
 Cost of Removal Accrual Rate 0.12%
 Whole Life Accrual Rate (Excluding Cost of Removal) 2.47%
 Depreciable Service Life, years 38.5

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	48,234,546
Forecast Additions	3,050,000
Gross Salvage Value	4,809,695
Less Cost of Removal	2,404,848
Net Salvage Value	2,404,848

Depreciation Reserve Balance 12/31/14 (6,756,732) **Garren Proposed Annual Accrual**
 Forecast Total Remaining Life Balance 42,122,966 1,504,392
 Forecast Plant Balances 1,348,571,279
 Remaining Life Accrual Rate 3.12% 3.12%

0
 Unit Property Depreciation Rate Analysis
 Unit Property: Other Production,
 Gross Salvage 10%
 Cost of Removal 5%
 Net Salvage 5%
 Install Date 2003
 Retirement Date 2043
 Service Life, Yrs 40

Historical and Forecast Plant Additions & Balances
 Account: 344 Generators

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	2003	40	-	508,989	-	(43,688)	-	508,989	-	-	508,989
2	2004	39	-	-	-	-	-	-	-	-	508,989
3	2005	38	-	-	-	-	-	-	-	-	508,989
4	2006	37	-	11,382	-	-	-	11,382	-	-	520,371
5	2007	36	-	-	-	-	-	-	-	-	520,371
6	2008	35	-	11,382	-	-	-	11,382	-	-	531,753
7	2009	34	-	-	-	-	-	-	-	-	531,753
8	2010	33	-	31,224	-	-	-	31,224	-	-	562,977
9	2011	32	-	-	(43,688)	-	-	-	(43,688)	-	519,289
10	2012	31	-	-	-	-	-	-	-	-	519,289
11	2013	30	-	-	-	-	-	-	-	-	519,289
12	2014	29	-	-	-	-	-	-	-	-	519,289
13	Total		\$ -	\$ 562,977	\$ (43,688)	\$ (43,688)	\$ -	\$ 562,977	\$ (43,688)	\$ -	\$ 6,271,346
14	Major Additions/Retirements										
15	2003			\$ 508,989							
16											
17	Routine Activity										
18	Historical Interim Activity										
19	Forecast Interim Activity										
20	Major Additions**										
20	2015	28						-	-		519,289
21	2016	27						-	-		519,289
22	2017	26						-	-		519,289
23	2018	25						-	-		519,289
24	2019	24						-	-		519,289
25	2020	23						-	-		519,289
26	2021	22						-	-		519,289
27	2022	21						-	-		519,289
28	2023	20						-	-		519,289
29	2024	19						-	-		519,289
30	2025	18						-	-		519,289
31	2026	17						-	-		519,289
32	2027	16						-	-		519,289
33	2028	15						-	-		519,289
34	2029	14						-	-		519,289
35	2030	13						-	-		519,289
36	2031	12						-	-		519,289
37	2032	11						-	-		519,289
38	2033	10						-	-		519,289
39	2034	9						-	-		519,289
40	2035	8						-	-		519,289
41	2036	7						-	-		519,289
42	2037	6						-	-		519,289
43	2038	5						-	-		519,289
44	2039	4						-	-		519,289
45	2040	3						-	-		519,289
46	2041	2						-	-		519,289
47	2042	1						-	-		519,289
48	2043	0							(519,289)		-
			\$ -	\$ 562,977	\$ (43,688)			\$ 562,977	\$ (43,688)	\$ -	\$ 20,811,426

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	562,977
Forecast Additions	-
Total Additions	562,977
Gross Salvage Value	51,929
Less Cost of Removal	25,964
Net Salvage Value	25,964
Total to be Recovered	537,012

Forecast Plant Balances 20,811,426

Whole Life Accrual Rate 2.58%
 Cost of Removal Accrual Rate 0.12%
 Whole Life Accrual Rate (Excluding Cost of Removal) 2.46%

Depreciable Service Life, years 38.8

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	519,289
Forecast Additions	-
Gross Salvage Value	51,929
Less Cost of Removal	25,964
Net Salvage Value	25,964

Depreciation Reserve Balance 12/31/14 (27,820)

Forecast Total Remaining Life Balance 465,504

Forecast Plant Balances 14,540,081

Remaining Life Accrual Rate 3.20%

Garren Proposed

Annual Accrual

16,625.13

3.20%

0
 Unit Property Depreciation Rate Analysis
 Unit Property: Other Production,
 Historical and Forecast Plant Additions & Balances
 Account: 345 Accessory Electric Equipment

Gross Salvage 8%
 Cost of Removal 10%
 Net Salvage -2%
 Install Date 2003
 Retirement Date 2043
 Service Life, Yrs 40

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106 Advance Additions	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements		Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions	Additions	Retirements		
1	2003	40	-	3,351,545	-	(156,431)	-	3,351,545	-	-	3,351,545
2	2004	39	-	-	-	-	-	-	-	-	3,351,545
3	2005	38	-	-	-	-	-	-	-	-	3,351,545
4	2006	37	-	-	-	-	-	-	-	-	3,351,545
5	2007	36	-	-	-	-	-	-	-	-	3,351,545
6	2008	35	-	-	-	-	-	-	-	-	3,351,545
7	2009	34	-	88,172	-	-	0	88,172	-	-	3,439,717
8	2010	33	-	-	(62,247)	-	-	-	(62,247)	-	3,377,470
9	2011	32	-	15,461	(86,884)	-	-	15,461	(86,884)	-	3,306,048
10	2012	31	-	-	-	-	-	-	-	-	3,306,048
11	2013	30	-	-	-	-	-	-	-	-	3,306,048
12	2014	29	-	-	(7,300)	-	-	-	(7,300)	-	3,298,748
13	Total		\$ -	\$ 3,455,179	\$ (156,431)	\$ (156,431)	\$ 0	\$ 3,455,179	\$ (156,431)	\$ -	\$ 40,143,351

14	Major Additions/Retirements										
15	2003		\$ 3,351,545								
16	2011			\$ (86,884)							
17	Routine Activity		\$ 103,633	\$ (69,547)							
18	Historical Interim Activity		0.26%	-0.17%							
19	Forecast Interim Activity		0.00%	-0.17%							

Line	Vintage Year	Vintage Age	Major Additions**				Adjusted Transaction Year Additions	Adjusted Transaction Year Retirements	Transfers and Adjustments	End of Year Plant Balance*	
			Balance	Additions	Retirements	Retirements					
20	2015	28					-	(5,715)	-	3,293,033	
21	2016	27					-	(5,705)	-	3,287,328	
22	2017	26					-	(5,695)	-	3,281,633	
23	2018	25					-	(5,685)	-	3,275,947	
24	2019	24					-	(5,675)	-	3,270,272	
25	2020	23					-	(5,666)	-	3,264,606	
26	2021	22					-	(5,656)	-	3,258,950	
27	2022	21					-	(5,646)	-	3,253,304	
28	2023	20					-	(5,636)	-	3,247,668	
29	2024	19					-	(5,626)	-	3,242,041	
30	2025	18					-	(5,617)	-	3,236,425	
31	2026	17					-	(5,607)	-	3,230,818	
32	2027	16					-	(5,597)	-	3,225,220	
33	2028	15					-	(5,588)	-	3,219,633	
34	2029	14					-	(5,578)	-	3,214,055	
35	2030	13					-	(5,568)	-	3,208,487	
36	2031	12					-	(5,559)	-	3,202,928	
37	2032	11					-	(5,549)	-	3,197,379	
38	2033	10					-	(5,539)	-	3,191,840	
39	2034	9					-	(5,530)	-	3,186,310	
40	2035	8					-	(5,520)	-	3,180,790	
41	2036	7					-	(5,511)	-	3,175,279	
42	2037	6					-	(5,501)	-	3,169,778	
43	2038	5					-	(5,492)	-	3,164,287	
44	2039	4					-	(5,482)	-	3,158,805	
45	2040	3					-	(5,473)	-	3,153,332	
46	2041	2					-	(5,463)	-	3,147,869	
47	2042	1					-	(5,454)	-	3,142,415	
48	2043	0							(3,142,415)	-	-
			\$ -	\$ 3,455,179	\$ (312,763)						\$ 130,223,782

* Through vintage year 1999 the balances are 1999 remaining plant balances.
 ** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	3,455,179
Forecast Additions	-
Total Additions	3,455,179
Gross Salvage Value	251,393
Less Cost of Removal	314,242
Net Salvage Value	(62,848)
Total to be Recovered	3,518,027

Forecast Plant Balances 130,223,782

Whole Life Accrual Rate 2.70%
 Cost of Removal Accrual Rate 0.24%
 Whole Life Accrual Rate (Excluding Cost of Removal) 2.46%

Depreciable Service Life, years 37.0

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	3,298,748
Forecast Additions	-
Gross Salvage Value	251,393
Less Cost of Removal	314,242
Net Salvage Value	(62,848)

Depreciation Reserve Balance 12/31/14 (658,318)

Forecast Total Remaining Life Balance 2,703,278

Forecast Plant Balances 90,080,431

Remaining Life Accrual Rate 3.00%

Garren Proposed

Annual Accrual

96,546

2.93%

0
 Unit Property Depreciation Rate Analysis
 Unit Property: Other Production,
 Historical and Forecast Plant Additions & Balances
 Account: 346 Misc Power Equipment

Gross Salvage	8%
Cost of Removal	10%
Net Salvage	-2%
Install Date	2003
Retirement Date	2043
Service Life, Yrs	40

Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year Retirements	Account 106 Advance Additions	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year					Additions	Retirements		
			Balance	Additions	Retirements						
1	2003	40	-	1,034,531	-	(5,168)	-	1,034,531	-	-	1,034,531
2	2004	39	-	14,906	-	-	-	14,906	-	-	1,049,437
3	2005	38	-	-	-	-	-	-	-	-	1,049,437
4	2006	37	-	-	-	-	-	-	-	-	1,049,437
5	2007	36	-	-	-	-	-	-	-	-	1,049,437
6	2008	35	-	-	-	-	-	-	-	-	1,049,437
7	2009	34	-	-	-	-	-	-	-	-	1,049,437
8	2010	33	-	61,110	-	-	-	61,110	-	-	1,110,547
9	2011	32	-	-	(5,168)	-	-	-	(5,168)	-	1,105,378
10	2012	31	-	-	-	-	-	-	-	-	1,105,378
11	2013	30	-	-	-	-	-	-	-	-	1,105,378
12	2014	29	-	-	-	-	-	-	-	-	1,105,378
13	Total		\$ -	\$ 1,110,547	\$ (5,168)	\$ (5,168)	\$ -	\$ 1,110,547	\$ (5,168)	\$ -	\$ 12,863,213

14 Major Additions/Retirements
 15 2003 \$ 1,034,531
 16
 17 Routine Activity \$ 76,016 \$ (5,168)
 18 Historical Interim Activity 0.59% -0.04%
 19 Forecast Interim Activity 0.00% -0.04%

Line	Vintage Year	Vintage Age	Major Additions**		End of Year Plant Balance*
20	2015	28	-	(444)	1,104,934
21	2016	27	-	(444)	1,104,490
22	2017	26	-	(444)	1,104,046
23	2018	25	-	(444)	1,103,603
24	2019	24	-	(443)	1,103,159
25	2020	23	-	(443)	1,102,716
26	2021	22	-	(443)	1,102,273
27	2022	21	-	(443)	1,101,830
28	2023	20	-	(443)	1,101,387
29	2024	19	-	(443)	1,100,945
30	2025	18	-	(442)	1,100,502
31	2026	17	-	(442)	1,100,060
32	2027	16	-	(442)	1,099,618
33	2028	15	-	(442)	1,099,176
34	2029	14	-	(442)	1,098,735
35	2030	13	-	(441)	1,098,293
36	2031	12	-	(441)	1,097,852
37	2032	11	-	(441)	1,097,411
38	2033	10	-	(441)	1,096,970
39	2034	9	-	(441)	1,096,529
40	2035	8	-	(441)	1,096,089
41	2036	7	-	(440)	1,095,648
42	2037	6	-	(440)	1,095,208
43	2038	5	-	(440)	1,094,768
44	2039	4	-	(440)	1,094,328
45	2040	3	-	(440)	1,093,888
46	2041	2	-	(440)	1,093,449
47	2042	1	-	(439)	1,093,009
48	2043	0	-	-	-
			\$ -	\$ (17,537)	\$ 43,634,131

* Through vintage year 1999 the balances are 1999 remaining plant balances.
 ** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	1,110,547
Forecast Additions	-
Total Additions	1,110,547
Gross Salvage Value	87,441
Less Cost of Removal	109,301
Net Salvage Value	(21,860)
Total to be Recovered	1,132,407
Forecast Plant Balances	43,634,131
Whole Life Accrual Rate	2.60%
Cost of Removal Accrual Rate	0.25%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.34%
Depreciable Service Life, years	38.5

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	1,105,378
Forecast Additions	-
Gross Salvage Value	87,441
Less Cost of Removal	109,301
Net Salvage Value	(21,860)

Depreciation Reserve Balance 12/31/14	(282,393)	Garren Proposed
Forecast Total Remaining Life Balance	844,845	Annual Accrual
Forecast Plant Balances	30,770,919	30,173
Remaining Life Accrual Rate	2.75%	2.73%

Summary by Plant
The Empire District Electric Company
latan 1

Account	Description	Direct Investment 2014\$	Depreciation Rate
311	Structure & Improvements	4,359,286	1.72%
312	Boiler Plant Equipment	73,879,236	2.59%
314	Turbo Generator Equipment	11,115,815	2.26%
315	Accessory Electric Equipment	6,916,869	2.47%
316	Misc Power Equipment	1,414,804	1.34%
Total		97,686,010	2.49% remaining life weighted average rate

The Empire District Electric Company
Unit Property Depreciation Rate Analysis
Unit Property: Steam Production, Iatan 1

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	1980
Retirement Date	2040
Service Life, Yrs	60

Historical and Forecast Plant Additions & Balances
Account: 311 Structures & Improvements

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E] [F]				[G]	[H] [I]		[J]	[K]
			Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Retirements	Retirements	Advance	Additions	Retirements		
Balance	Additions	Retirements	Retirements	Additions			Additions			Retirements	
1	1980	60	3,179,510	-	-	(191,459)	-	3,179,510	-	-	3,179,510
2	1981	59	-	-	-	-	-	-	-	-	3,179,510
3	1982	58	-	-	-	-	-	-	-	-	3,179,510
4	1983	57	50,794	-	-	(1,984)	-	50,794	-	-	3,230,304
5	1984	56	2,939	-	-	-	-	2,939	-	-	3,233,243
6	1985	55	8,370	-	-	-	-	8,370	-	-	3,241,613
7	1986	54	2,000	-	-	-	-	2,000	-	-	3,243,613
8	1987	53	-	-	-	-	-	-	-	-	3,243,613
9	1988	52	-	-	-	-	-	-	-	-	3,243,613
10	1989	51	1,670	-	-	-	-	1,670	-	-	3,245,283
11	1990	50	4,939	-	-	-	-	4,939	-	-	3,250,222
12	1991	49	51,815	-	-	(16,565)	-	51,815	-	-	3,302,037
13	1992	48	118,212	-	-	(1,986)	-	118,212	-	-	3,420,249
14	1993	47	-	-	-	-	-	-	-	-	3,420,249
15	1994	46	176,285	-	-	(607)	-	176,285	-	-	3,596,534
16	1995	45	51,965	-	-	(2,699)	-	51,965	-	-	3,648,499
17	1996	44	168,815	-	-	(3,818)	-	168,815	-	-	3,817,314
18	1997	43	16,480	-	-	-	-	16,480	-	-	3,833,794
19	1998	42	18,183	-	-	(4,932)	-	18,183	-	-	3,851,977
20	1999	41	-	3,495	-	-	-	3,495	-	-	3,855,472
21	2000	40	-	9,462	-	(1,419)	-	9,462	-	-	3,864,934
22	2001	39	-	6,592	-	-	-	6,592	-	-	3,871,526
23	2002	38	-	6,079	-	(1,909)	-	6,079	-	-	3,877,605
24	2003	37	-	21,394	-	(1,858)	-	21,394	-	-	3,898,999
25	2004	36	-	7,910	-	(595)	-	7,910	-	-	3,906,909
26	2005	35	-	8,161	-	-	-	8,161	-	-	3,915,070
27	2006	34	-	21,064	-	(5,167)	-	21,064	-	-	3,936,134
28	2007	33	-	13,200	(68,236)	-	-	13,200	(68,236)	-	3,881,098
29	2008	32	-	18,548	-	-	10,539	29,087	-	-	3,910,184
30	2009	31	-	429,939	-	-	(8,393)	421,546	-	-	4,331,730
31	2010	30	-	2,910	(11,158)	-	64,846	67,756	(11,158)	-	4,388,328
32	2011	29	-	49,224	(607)	-	46,468	95,692	(607)	-	4,483,413
33	2012	28	-	585	-	-	29,567	30,152	-	-	4,513,565
34	2013	27	-	-	-	-	716	716	-	-	4,514,281
35	2014	26	-	-	(154,996)	-	-	-	(154,996)	-	4,359,286
36	Total		\$ 3,851,977	\$ 598,563	\$ (234,997)	\$ (234,997)	\$ 143,743	\$ 4,594,282	\$ (234,997)	\$ -	\$ 129,869,220
37	Major Additions/Retirements										
38	2009		\$	429,939							
39											
40											
41											
42	Routine Activity		\$	312,366	\$	(234,997)					
43	Historical Interim Activity			0.24%		-0.18%					
44	Forecast Interim Activity			0.00%		-0.18%					
							Major Additions**				
45	2015	25						(7,888)			4,351,397
46	2016	24						(7,874)			4,343,524
47	2017	23						(7,860)			4,335,664
48	2018	22						(7,845)			4,327,819
49	2019	21						(7,831)			4,319,988
50	2020	20						(7,817)			4,312,171
51	2021	19						(7,803)			4,304,368
52	2022	18						(7,789)			4,296,579
53	2023	17						(7,775)			4,288,805
54	2024	16						(7,761)			4,281,044
55	2025	15						(7,747)			4,273,297
56	2026	14						(7,732)			4,265,565
57	2027	13						(7,718)			4,257,847
58	2028	12						(7,705)			4,250,142
59	2029	11						(7,691)			4,242,451
60	2030	10						(7,677)			4,234,775
61	2031	9						(7,663)			4,227,112
62	2032	8						(7,649)			4,219,463
63	2033	7						(7,635)			4,211,828

The Empire District Electric Company	Gross Salvage	5%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-5%
Unit Property: Steam Production, Iatan 1	Install Date	1980
	Retirement Date	2040
	Service Life, Yrs	60

Historical and Forecast Plant Additions & Balances
Account: 311 Structures & Improvements

	[A]	[B]	[C]			[D]	[E]	[F]	[G]	[H]		[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Vintage Year	Account 106 Advance Additions	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*		
			Transaction Year			Retirements			Additions	Retirements				
			Balance	Additions	Retirements									
64	2034	6						-	(7,621)			4,204,207		
65	2035	5						-	(7,607)			4,196,599		
66	2036	4						-	(7,594)			4,189,006		
67	2037	3						-	(7,580)			4,181,426		
68	2038	2						-	(7,566)			4,173,859		
69	2039	1						-	(7,553)			4,166,307		
70	2040	0									(4,166,307)	-		
								\$ -	\$ 4,594,282	\$ (427,976)		\$ 236,324,461		

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	4,594,282
Forecast Additions	-
Total Additions	4,594,282
Gross Salvage Value	208,315
Less Cost of Removal	416,631
Net Salvage Value	(208,315)
Total to be Recovered	4,802,598

Forecast Plant Balances 236,324,461

Whole Life Accrual Rate 2.03%

Cost of Removal Accrual Rate 0.18%

Whole Life Accrual Rate (Excluding Cost of Removal) 1.86%

Depreciable Service Life, years 49.2

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	4,359,286
Forecast Additions	-
Gross Salvage Value	208,315
Less Cost of Removal	416,631
Net Salvage Value	(208,315)

Depreciation Reserve Balance 12/31/14 (2,692,543)

Forecast Total Remaining Life Balance 1,875,058

Forecast Plant Balances 106,455,241

Remaining Life Accrual Rate 1.76%

Garren Proposed Annual Accrual

75,002.31

1.72%

The Empire District Electric Company	Gross Salvage	5%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-5%
Unit Property: Steam Production, Iatan 1	Install Date	1980
	Retirement Date	2040
	Service Life, Yrs	60

Historical and Forecast Plant Additions & Balances
Account: 312 Boiler Plant Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	1980	60	26,030,607	-	-	(7,381,186)	-	26,030,607	-	-	26,030,607
2	1981	59	-	-	-	-	-	-	-	-	26,030,607
3	1982	58	-	-	-	-	-	-	-	-	26,030,607
4	1983	57	159,024	-	-	(48,946)	-	159,024	-	-	26,189,631
5	1984	56	133,092	-	-	(113,550)	-	133,092	-	-	26,322,723
6	1985	55	43,315	-	-	(3,104)	-	43,315	-	-	26,366,038
7	1986	54	22,975	-	-	-	-	22,975	-	-	26,389,013
8	1987	53	63,339	-	-	(750)	-	63,339	-	-	26,452,352
9	1988	52	6,996	-	-	-	-	6,996	-	-	26,459,348
10	1989	51	107,911	-	-	(5,836)	-	107,911	-	-	26,567,259
11	1990	50	48,647	-	-	(34,703)	-	48,647	-	-	26,615,906
12	1991	49	273,477	1,405	-	(3,319)	-	274,882	-	-	26,890,788
13	1992	48	321,108	-	-	(61,375)	-	321,108	-	-	27,211,896
14	1993	47	-	-	-	-	-	-	-	-	27,211,896
15	1994	46	179,351	-	-	(30,137)	-	179,351	-	-	27,391,247
16	1995	45	63,212	-	-	(23,312)	-	63,212	-	-	27,454,459
17	1996	44	380,926	-	-	(38,328)	-	380,926	-	-	27,835,385
18	1997	43	165,192	-	-	(3,658)	-	165,192	-	-	28,000,577
19	1998	42	36,366	-	-	(12,402)	-	36,366	-	-	28,036,943
20	1999	41	-	23,451	-	-	-	23,451	-	-	28,060,394
21	2000	40	-	354,275	-	(113,677)	-	354,275	-	-	28,414,669
22	2001	39	-	143,555	-	(15,155)	-	143,555	-	-	28,558,224
23	2002	38	-	635,875	-	(54,173)	-	635,875	-	-	29,194,099
24	2003	37	-	487,438	-	(35,083)	-	487,438	-	-	29,681,537
25	2004	36	-	244,257	-	(25,989)	-	244,257	-	-	29,925,794
26	2005	35	-	336,763	-	(17,043)	-	336,763	-	-	30,262,557
27	2006	34	-	169,927	-	(28,160)	0	169,928	-	-	30,432,485
28	2007	33	-	1,370,358	(1,803,878)	(89,014)	(0)	1,370,357	(1,803,878)	-	29,998,964
29	2008	32	-	526,333	(167,584)	(18,665)	(0)	526,332	(167,584)	-	30,357,712
30	2009	31	-	42,940,755	-	(7,107)	796,426	43,737,181	-	-	74,094,893
31	2010	30	-	24,344	(5,353,488)	(244)	263,448	287,792	(5,353,488)	-	69,029,197
32	2011	29	-	187,603	(712,330)	-	2,818,317	3,005,919	(712,330)	-	71,322,787
33	2012	28	-	-	(244)	-	744,534	744,534	(244)	-	72,067,076
34	2013	27	-	-	-	-	1,638,150	1,638,150	-	-	73,705,226
35	2014	26	-	-	(127,392)	-	301,402	301,402	(127,392)	-	73,879,236
36	Total		\$ 28,035,538	\$ 47,446,338	\$ (8,164,916)	\$ (8,164,916)	\$ 6,562,276	\$ 82,044,152	\$ (8,164,916)	\$ -	\$ 1,238,472,131
37	Major Additions/Retirements										
38	2007				\$ (1,803,878)						
39	2009		\$ 42,940,755								
40	2010				\$ (5,353,488)						
41											
42	Routine Activity		\$ 11,067,859	\$ (1,007,550)							
43	Historical Interim Activity			0.89%	-0.08%						
44	Forecast Interim Activity			0.00%	-0.08%						
<u>Major Additions**</u>											
45	2015	25						-	(60,104)		73,819,133
46	2016	24						-	(60,055)		73,759,078
47	2017	23						-	(60,006)		73,699,071
48	2018	22						-	(59,957)		73,639,114
49	2019	21						-	(59,909)		73,579,206
50	2020	20						-	(59,860)		73,519,346
51	2021	19						-	(59,811)		73,459,535
52	2022	18						-	(59,762)		73,399,772
53	2023	17						-	(59,714)		73,340,058
54	2024	16						-	(59,665)		73,280,393
55	2025	15						-	(59,617)		73,220,776
56	2026	14						-	(59,568)		73,161,208
57	2027	13						-	(59,520)		73,101,688
58	2028	12						-	(59,471)		73,042,217
59	2029	11						-	(59,423)		72,982,794
60	2030	10						-	(59,375)		72,923,420
61	2031	9						-	(59,326)		72,864,093
62	2032	8						-	(59,278)		72,804,815

The Empire District Electric Company
 Gross Salvage 5%
 Cost of Removal 10%
Unit Property Depreciation Rate Analysis
 Net Salvage -5%
Unit Property: Steam Production, Iatan 1
 Install Date 1980
 Retirement Date 2040
 Service Life, Yrs 60

Historical and Forecast Plant Additions & Balances
Account: 312 Boiler Plant Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year			Vintage Year Retirements	Advance Additions	Additions	Retirements			
			Balance	Additions	Retirements							
63	2033	7						-	(59,230)		72,745,586	
64	2034	6						-	(59,182)		72,686,404	
65	2035	5						-	(59,133)		72,627,270	
66	2036	4						-	(59,085)		72,568,185	
67	2037	3						-	(59,037)		72,509,148	
68	2038	2						-	(58,989)		72,450,159	
69	2039	1						-	(58,941)		72,391,217	
70	2040	0								(72,391,217)	-	
								\$	-	\$ 82,044,152	\$ (9,652,935)	\$ 3,066,045,818

* Through vintage year 1999 the balances are 1999 remaining plant balances.
 ** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	82,044,152
Forecast Additions	-
Total Additions	82,044,152
Gross Salvage Value	3,619,561
Less Cost of Removal	7,239,122
Net Salvage Value	(3,619,561)
Total to be Recovered	85,663,713
Forecast Plant Balances	3,066,045,818

Whole Life Accrual Rate	2.79%
Cost of Removal Accrual Rate	0.24%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.56%
Depreciable Service Life, years	35.8

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	73,879,236
Forecast Additions	-
Gross Salvage Value	3,619,561
Less Cost of Removal	7,239,122
Net Salvage Value	(3,619,561)

Depreciation Reserve Balance 12/31/14	(29,738,977)	Garren Proposed
Forecast Total Remaining Life Balance	47,759,820	Annual Accrual
Forecast Plant Balances	1,827,573,687	1,910,393
Remaining Life Accrual Rate	2.61%	2.59%

The Empire District Electric Company
Unit Property Depreciation Rate Analysis
Unit Property: Steam Production, Iatan 1

Gross Salvage 5%
Cost of Removal 10%
Net Salvage -5%
Install Date 1980
Retirement Date 2040
Service Life, Yrs 60

Historical and Forecast Plant Additions & Balances
Account: 314 Turbogenerator Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance Additions	Additions	Retirements		
			Balance	Additions	Retirements						
1	1980	60	7,168,194	-	-	(1,172,909)	-	7,168,194	-	-	7,168,194
2	1981	59	-	-	-	-	-	-	-	-	7,168,194
3	1982	58	-	-	-	-	-	-	-	-	7,168,194
4	1983	57	14,962	-	-	(1,163)	-	14,962	-	-	7,183,156
5	1984	56	4,814	-	-	-	-	4,814	-	-	7,187,970
6	1985	55	9,230	-	-	(9,230)	-	9,230	-	-	7,197,200
7	1986	54	-	-	-	-	-	-	-	-	7,197,200
8	1987	53	44,068	-	-	(3,029)	-	44,068	-	-	7,241,268
9	1988	52	7	-	-	-	-	7	-	-	7,241,275
10	1989	51	900	-	-	-	-	900	-	-	7,242,175
11	1990	50	9,097	-	-	-	-	9,097	-	-	7,251,272
12	1991	49	146,125	-	-	-	-	146,125	-	-	7,397,397
13	1992	48	243,821	-	-	-	-	243,821	-	-	7,641,218
14	1993	47	-	-	-	-	-	-	-	-	7,641,218
15	1994	46	20,490	-	-	(1,620)	-	20,490	-	-	7,661,708
16	1995	45	-	-	-	-	-	-	-	-	7,661,708
17	1996	44	-	-	-	-	-	-	-	-	7,661,708
18	1997	43	13,769	-	-	(6,890)	-	13,769	-	-	7,675,477
19	1998	42	17,980	-	-	(7,172)	-	17,980	-	-	7,693,457
20	1999	41	-	-	-	-	-	-	-	-	7,693,457
21	2000	40	-	118,246	-	(53,456)	-	118,246	-	-	7,811,703
22	2001	39	-	4,616	-	-	-	4,616	-	-	7,816,319
23	2002	38	-	26,194	-	(15,058)	-	26,194	-	-	7,842,513
24	2003	37	-	34,241	-	(5,870)	-	34,241	-	-	7,876,754
25	2004	36	-	9,235	-	(1,284)	-	9,235	-	-	7,885,989
26	2005	35	-	155,500	-	-	-	155,500	-	-	8,041,489
27	2006	34	-	56,127	-	(19,703)	-	56,127	-	-	8,097,616
28	2007	33	-	408,626	(336,830)	(27,355)	787	409,413	(336,830)	-	8,170,199
29	2008	32	-	194,628	(68,715)	-	0	194,628	(68,715)	-	8,296,112
30	2009	31	-	1,433,363	-	-	160,497	1,593,860	-	-	9,889,972
31	2010	30	-	-	(785,054)	-	(86,409)	(86,409)	(785,054)	-	9,018,508
32	2011	29	-	-	(85,997)	-	111,133	111,133	(85,997)	-	9,043,645
33	2012	28	-	1,245,977	-	-	76,506	1,322,482	-	-	10,366,127
34	2013	27	-	-	-	-	699,963	699,963	-	-	11,066,090
35	2014	26	-	-	(48,143)	-	97,869	97,869	(48,143)	-	11,115,815
36	Total		\$ 7,693,457	\$ 3,686,752	\$ (1,324,739)	\$ (1,324,739)	\$ 1,060,345	\$ 12,440,555	\$ (1,324,739)	\$ -	\$ 280,312,298
37	Major Additions/Retirements										
38	2009			\$ 1,433,363							
39	2010					\$ (785,054)					
40	2012			\$ 1,245,977							
41											
42	Routine Activity			\$ 2,067,758		\$ (539,685)					
43	Historical Interim Activity			0.74%		-0.19%					
44	Forecast Interim Activity			0.00%		-0.19%					
<u>Major Additions**</u>											
45	2015	25						-	(21,401)		11,094,414
46	2016	24						-	(21,360)		11,073,054
47	2017	23						-	(21,319)		11,051,735
48	2018	22						-	(21,278)		11,030,457
49	2019	21						-	(21,237)		11,009,220
50	2020	20						-	(21,196)		10,988,024
51	2021	19						-	(21,155)		10,966,869
52	2022	18						-	(21,114)		10,945,755
53	2023	17						-	(21,074)		10,924,681
54	2024	16						-	(21,033)		10,903,648
55	2025	15						-	(20,993)		10,882,655
56	2026	14						-	(20,952)		10,861,702
57	2027	13						-	(20,912)		10,840,790
58	2028	12						-	(20,872)		10,819,919
59	2029	11						-	(20,832)		10,799,087
60	2030	10						-	(20,791)		10,778,296
61	2031	9						-	(20,751)		10,757,544
62	2032	8						-	(20,711)		10,736,833
63	2033	7						-	(20,672)		10,716,161

The Empire District Electric Company	Gross Salvage	5%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-5%
Unit Property: Steam Production, Iatan 1	Install Date	1980
	Retirement Date	2040
	Service Life, Yrs	60

Historical and Forecast Plant Additions & Balances
Account: 314 Turbogenerator Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance Additions	Additions	Retirements		
			Balance	Additions	Retirements						
64	2034	6						-	(20,632)		10,695,529
65	2035	5						-	(20,592)		10,674,937
66	2036	4						-	(20,552)		10,654,385
67	2037	3						-	(20,513)		10,633,872
68	2038	2						-	(20,473)		10,613,398
69	2039	1						-	(20,434)		10,592,964
70	2040	0								(10,592,964)	-
								\$ -	\$ 12,440,555	\$ (1,847,590)	\$ 551,358,227

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	12,440,555
Forecast Additions	-
Total Additions	12,440,555
Gross Salvage Value	529,648
Less Cost of Removal	1,059,296
Net Salvage Value	(529,648)
Total to be Recovered	12,970,203

Forecast Plant Balances 551,358,227

Whole Life Accrual Rate	2.35%
Cost of Removal Accrual Rate	0.19%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.16%

Depreciable Service Life, years 42.5

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	11,115,815
Forecast Additions	-
Gross Salvage Value	529,648
Less Cost of Removal	1,059,296
Net Salvage Value	(529,648)

Depreciation Reserve Balance 12/31/14 (5,355,678)

Forecast Total Remaining Life Balance	6,289,786
Forecast Plant Balances	271,045,930
Remaining Life Accrual Rate	2.32%

Garren Proposed Annual Accrual

251,591
2.26%

The Empire District Electric Company
Unit Property Depreciation Rate Analysis
Unit Property: Steam Production, Iatan 1

Gross Salvage 5%
Cost of Removal 10%
Net Salvage -5%
Install Date 1980
Retirement Date 2040
Service Life, Yrs 60

Historical and Forecast Plant Additions & Balances
Account: 315 Accessory Electric Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance Additions	Additions	Retirements		
			Balance	Additions	Retirements						
1	1980	60	3,184,218	-	-	(739,485)	-	3,184,218	-	-	3,184,218
2	1981	59	-	-	-	-	-	-	-	-	3,184,218
3	1982	58	-	-	-	-	-	-	-	-	3,184,218
4	1983	57	2,284	-	-	(2,284)	-	2,284	-	-	3,186,502
5	1984	56	2,741	-	-	(2,741)	-	2,741	-	-	3,189,243
6	1985	55	1,648	-	-	-	-	1,648	-	-	3,190,891
7	1986	54	20,565	-	-	(20,565)	-	20,565	-	-	3,211,456
8	1987	53	8,983	-	-	(3,061)	-	8,983	-	-	3,220,439
9	1988	52	-	-	-	-	-	-	-	-	3,220,439
10	1989	51	9,030	-	-	(9,030)	-	9,030	-	-	3,229,469
11	1990	50	2,537	-	-	(2,537)	-	2,537	-	-	3,232,006
12	1991	49	44,236	-	-	-	-	44,236	-	-	3,276,242
13	1992	48	4,348	-	-	-	-	4,348	-	-	3,280,590
14	1993	47	-	-	-	-	-	-	-	-	3,280,590
15	1994	46	203,198	-	-	-	-	203,198	-	-	3,483,788
16	1995	45	-	-	-	-	-	-	-	-	3,483,788
17	1996	44	19,468	-	-	-	-	19,468	-	-	3,503,256
18	1997	43	20,483	-	-	-	-	20,483	-	-	3,523,739
19	1998	42	10,828	-	-	-	-	10,828	-	-	3,534,567
20	1999	41	-	-	-	-	-	-	-	-	3,534,567
21	2000	40	-	75,988	-	(30,717)	-	75,988	-	-	3,610,555
22	2001	39	-	539,053	-	(8,436)	-	539,053	-	-	4,149,608
23	2002	38	-	1,439,220	-	(10,124)	-	1,439,220	-	-	5,588,828
24	2003	37	-	70,512	-	-	-	70,512	-	-	5,659,340
25	2004	36	-	16,441	-	-	-	16,441	-	-	5,675,781
26	2005	35	-	30,751	-	-	-	30,751	-	-	5,706,532
27	2006	34	-	2,681	-	-	-	2,681	-	-	5,709,213
28	2007	33	-	46,601	(802,344)	-	(0)	46,601	(802,344)	-	4,953,470
29	2008	32	-	64,177	-	-	0	64,177	-	338,149	5,355,795
30	2009	31	-	279,461	-	-	0	279,461	-	-	5,635,256
31	2010	30	-	1,827	(15,554)	-	42,771	44,598	(15,554)	-	5,664,301
32	2011	29	-	-	(11,081)	-	907,459	907,459	(11,081)	-	6,560,679
33	2012	28	-	10,126	-	-	64,031	74,157	-	-	6,634,835
34	2013	27	-	-	-	-	282,034	282,034	-	-	6,916,869
35	2014	26	-	-	-	-	-	-	-	-	6,916,869
31	Total		\$ 3,534,567	\$ 2,576,837	\$ (828,980)	\$ (828,980)	\$ 1,296,296	\$ 7,407,700	\$ (828,980)	\$ 338,149	\$ 150,872,157
36	Major Additions/Retirements										
37	2002		\$ 1,439,220								
38	2007			\$ (802,344)							
39											
40											
41	Routine Activity		\$ 2,433,913	\$ (26,636)							
42	Historical Interim Activity		1.61%	-0.02%							
43	Forecast Interim Activity		0.00%	-0.02%							
							Major Additions**				
44	2015	25						-	(1,221)		6,915,648
45	2016	24						-	(1,221)		6,914,427
46	2017	23						-	(1,221)		6,913,206
47	2018	22						-	(1,220)		6,911,986
48	2019	21						-	(1,220)		6,910,766
49	2020	20						-	(1,220)		6,909,546
50	2021	19						-	(1,220)		6,908,326
51	2022	18						-	(1,220)		6,907,106
52	2023	17						-	(1,219)		6,905,887
53	2024	16						-	(1,219)		6,904,668
54	2025	15						-	(1,219)		6,903,449
55	2026	14						-	(1,219)		6,902,230
56	2027	13						-	(1,219)		6,901,011
57	2028	12						-	(1,218)		6,899,793
58	2029	11						-	(1,218)		6,898,575
59	2030	10						-	(1,218)		6,897,357
60	2031	9						-	(1,218)		6,896,139
61	2032	8						-	(1,217)		6,894,922
62	2033	7						-	(1,217)		6,893,704

The Empire District Electric Company	Gross Salvage	5%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-5%
Unit Property: Steam Production, Iatan 1	Install Date	1980
	Retirement Date	2040
	Service Life, Yrs	60

Historical and Forecast Plant Additions & Balances
Account: 315 Accessory Electric Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance Additions	Additions	Retirements		
			Balance	Additions	Retirements						
63	2034	6						-	(1,217)		6,892,487
64	2035	5						-	(1,217)		6,891,271
65	2036	4						-	(1,217)		6,890,054
66	2037	3						-	(1,216)		6,888,838
67	2038	2						-	(1,216)		6,887,621
68	2039	1						-	(1,216)		6,886,405
69	2040	0								(6,886,405)	-
								\$ -	\$ 7,407,700	\$ (859,443)	\$ 323,397,577

* Through vintage year 1999 the balances are 1999 remaining plant balances.
** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	7,407,700
Forecast Additions	-
Total Additions	7,407,700
Gross Salvage Value	344,320
Less Cost of Removal	688,641
Net Salvage Value	(344,320)
Total to be Recovered	7,752,020

Forecast Plant Balances 323,397,577

Whole Life Accrual Rate	2.40%
Cost of Removal Accrual Rate	0.21%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.18%
Depreciable Service Life, years	41.7

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	6,916,869
Forecast Additions	-
Gross Salvage Value	344,320
Less Cost of Removal	688,641
Net Salvage Value	(344,320)

Depreciation Reserve Balance 12/31/14	(2,981,400)	Garren Proposed
Forecast Total Remaining Life Balance	4,279,789	Annual Accrual
Forecast Plant Balances	172,525,420	171,192
Remaining Life Accrual Rate	2.48%	2.47%

The Empire District Electric Company
Unit Property Depreciation Rate Analysis
Unit Property: Steam Production, Iatan 1

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	1980
Retirement Date	2040
Service Life, Yrs	60

Historical and Forecast Plant Additions & Balances
Account: 316 Miscellaneous Plant Equipment

Line	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Vintage Year Retirements	Advance	Additions	Retirements			
	Balance	Additions	Retirements	Retirements		Additions			Additions	Retirements	
1	1980	60	425,090	-	-	(91,211)	-	425,090	-	-	425,090
2	1981	59	-	-	-	-	-	-	-	-	425,090
3	1982	58	-	-	-	-	-	-	-	-	425,090
4	1983	57	9,163	-	-	(1,194)	-	9,163	-	-	434,253
5	1984	56	9,331	-	-	(4,138)	-	9,331	-	-	443,584
6	1985	55	5,728	-	-	(4,661)	-	5,728	-	-	449,312
7	1986	54	19,419	-	-	(16,569)	-	19,419	-	-	468,731
8	1987	53	3,690	-	-	(179)	-	3,690	-	-	472,421
9	1988	52	1,582	-	-	(564)	-	1,582	-	-	474,003
10	1989	51	20,797	-	-	(18,888)	-	20,797	-	-	494,800
11	1990	50	4,203	-	-	(608)	-	4,203	-	-	499,003
12	1991	49	8,354	-	-	(532)	-	8,354	-	-	507,357
13	1992	48	13,794	-	-	(2,135)	-	13,794	-	-	521,151
14	1993	47	-	-	-	-	-	-	-	-	521,151
15	1994	46	23,918	-	-	(550)	-	23,918	-	-	545,069
16	1995	45	9,920	-	-	(833)	-	9,920	-	-	554,989
17	1996	44	95,116	-	-	(3,378)	-	95,116	-	-	650,105
18	1997	43	9,018	-	-	-	-	9,018	-	-	659,123
19	1998	42	21,620	-	-	(15,592)	-	21,620	-	-	680,743
20	1999	41	-	-	-	-	-	-	-	-	680,743
21	2000	40	-	24,743	-	(3,404)	-	24,743	-	-	705,486
22	2001	39	-	13,727	-	(1,104)	-	13,727	-	-	719,213
23	2002	38	-	16,443	-	-	-	16,443	-	-	735,656
24	2003	37	-	21,801	-	(758)	-	21,801	-	-	757,457
25	2004	36	-	25,299	-	(441)	-	25,299	-	-	782,756
26	2005	35	-	7,091	-	-	-	7,091	-	-	789,847
27	2006	34	-	23,952	-	(3,956)	0	23,952	-	-	813,799
28	2007	33	-	13,074	(57,799)	(864)	(0)	13,074	(57,799)	-	769,074
29	2008	32	-	68,186	-	(1,795)	1	68,187	-	-	837,260
30	2009	31	-	602,899	-	-	0	602,899	-	-	1,440,159
31	2010	30	-	29,679	(114,663)	-	1,015	30,693	(114,663)	-	1,356,190
32	2011	29	-	2,617	(274)	-	32,566	35,183	(274)	-	1,391,099
33	2012	28	-	-	(463)	-	7,980	7,980	(463)	-	1,398,616
34	2013	27	-	-	-	-	4,877	4,877	-	0	1,403,493
35	2014	26	-	-	(157)	-	11,468	11,468	(157)	-	1,414,804
31	Total		\$ 680,743	\$ 849,511	\$ (173,356)	\$ (173,356)	\$ 57,906	\$ 1,588,160	\$ (173,356)	\$ 0	\$ 25,646,716
36	Major Additions/Retirements										
37	2009		\$	602,899							
38	2010				\$	(114,663)					
39											
40											
41	Routine Activity		\$	304,518	\$	(58,693)					
42	Historical Interim Activity			1.19%		-0.23%					
43	Forecast Interim Activity			0.00%		-0.23%					
								Major Additions**			
44	2015	25						-	(3,238)		1,411,566
45	2016	24						-	(3,230)		1,408,335
46	2017	23						-	(3,223)		1,405,112
47	2018	22						-	(3,216)		1,401,897
48	2019	21						-	(3,208)		1,398,688
49	2020	20						-	(3,201)		1,395,488
50	2021	19						-	(3,194)		1,392,294
51	2022	18						-	(3,186)		1,389,108
52	2023	17						-	(3,179)		1,385,929
53	2024	16						-	(3,172)		1,382,757
54	2025	15						-	(3,164)		1,379,592
55	2026	14						-	(3,157)		1,376,435
56	2027	13						-	(3,150)		1,373,285
57	2028	12						-	(3,143)		1,370,142
58	2029	11						-	(3,136)		1,367,007
59	2030	10						-	(3,128)		1,363,878
60	2031	9						-	(3,121)		1,360,757
61	2032	8						-	(3,114)		1,357,643
62	2033	7						-	(3,107)		1,354,536

The Empire District Electric Company	Gross Salvage	5%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-5%
Unit Property: Steam Production, Iatan 1	Install Date	1980
	Retirement Date	2040
	Service Life, Yrs	60

Historical and Forecast Plant Additions & Balances
Account: 316 Miscellaneous Plant Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance Additions	Additions	Retirements		
			Balance	Additions	Retirements						
63	2034	6						-	(3,100)		1,351,436
64	2035	5						-	(3,093)		1,348,343
65	2036	4						-	(3,086)		1,345,258
66	2037	3						-	(3,079)		1,342,179
67	2038	2						-	(3,072)		1,339,107
68	2039	1						-	(3,065)		1,336,043
69	2040	0								(1,336,043)	-
								\$ -	\$ 1,588,160	\$ (252,117)	\$ 59,983,533

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	1,588,160
Forecast Additions	-
Total Additions	1,588,160
Gross Salvage Value	66,802
Less Cost of Removal	133,604
Net Salvage Value	(66,802)
Total to be Recovered	1,654,962

Forecast Plant Balances 59,983,533

Whole Life Accrual Rate 2.76%

Cost of Removal Accrual Rate 0.22%

Whole Life Accrual Rate (Excluding Cost of Removal) 2.54%

Depreciable Service Life, years 36.2

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	1,414,804
Forecast Additions	-
Gross Salvage Value	66,802
Less Cost of Removal	133,604
Net Salvage Value	(66,802)

Depreciation Reserve Balance 12/31/14 (1,007,595)

Forecast Total Remaining Life Balance 474,011

Forecast Plant Balances 34,336,817

Remaining Life Accrual Rate 1.38%

Garren Proposed Annual Accrual

18,960

1.34%

Line	Vintage Year	Vintage Age	Reported Per Books				Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance Additions	Advance Retirements	Additions	Retirements		
			Beg Balance	Additions	Retirements							
1	1980	60	3,179,510	-	-	(65,537)	-	-	3,179,510	-	3,179,510	
2	1981	59	-	-	-	-	-	-	-	-	3,179,510	
3	1982	58	-	-	-	-	-	-	-	-	3,179,510	
4	1983	57	50,794	-	-	-	-	-	50,794	-	3,230,304	
5	1984	56	2,939	-	-	-	-	-	2,939	-	3,233,243	
6	1985	55	8,370	-	-	-	-	-	8,370	-	3,241,613	
7	1986	54	2,000	-	-	-	-	-	2,000	-	3,243,613	
8	1987	53	-	-	-	-	-	-	-	-	3,243,613	
9	1988	52	-	-	-	-	-	-	-	-	3,243,613	
10	1989	51	1,670	-	-	-	-	-	1,670	-	3,245,283	
11	1990	50	4,939	-	-	-	-	-	4,939	-	3,250,222	
12	1991	49	51,815	-	-	-	-	-	51,815	-	3,302,037	
13	1992	48	118,212	-	-	-	-	-	118,212	-	3,420,249	
14	1993	47	-	-	-	-	-	-	-	-	3,420,249	
15	1994	46	176,285	-	-	-	-	-	176,285	-	3,596,534	
16	1995	45	51,965	-	-	(2,699)	-	-	51,965	-	3,648,499	
17	1996	44	168,815	-	-	-	-	-	168,815	-	3,817,314	
18	1997	43	16,480	-	-	-	-	-	16,480	-	3,833,794	
19	1998	42	18,183	-	-	-	-	-	18,183	-	3,851,977	
20	1999	41	-	3,495	-	-	-	-	3,495	-	3,855,472	
21	2000	40	-	9,462	-	-	-	-	9,462	-	3,864,934	
22	2001	39	-	6,592	-	-	-	-	6,592	-	3,871,526	
23	2002	38	-	6,079	-	-	-	-	6,079	-	3,877,605	
24	2003	37	-	21,394	-	-	-	-	21,394	-	3,898,999	
25	2004	36	-	7,910	-	-	-	-	7,910	-	3,906,909	
26	2005	35	-	8,161	-	-	-	-	8,161	-	3,915,070	
27	2006	34	-	21,064	-	-	-	-	21,064	-	3,936,134	
28	2007	33	-	7,041	(68,236)	-	-	-	7,041	(68,236)	3,874,939	
29	2008	32	-	-	-	-	40,286	-	40,286	-	3,915,225	
30	2009	31	-	-	-	-	276,910	-	276,910	-	4,192,135	
31	2010	30	-	-	-	-	-	-	-	-	-	
32	2011	29	-	-	-	-	-	-	-	-	-	
33	2012	28	-	-	-	-	-	-	-	-	-	
34	2013	27	-	-	-	-	-	-	-	-	-	
35	2014	26	-	-	-	-	-	-	-	-	-	
36	Total		\$ 3,851,977	\$ 91,198	\$ (68,236)	\$ (68,236)	\$ 317,196	\$ -	\$ 4,260,371	\$ (68,236)	\$ -	\$ 107,469,635

Summary by Plant
The Empire District Electric Company
Plant 2 and Common

Account	Description	Direct Investment 2014\$	Depreciation Rate
311	Structure & Improvements	34,577,245	1.63%
312	Boiler Plant Equipment	137,388,055	1.42%
314	Turbo Generator Equipment	48,958,112	1.48%
315	Accessory Electric Equipment	16,753,742	1.58%
316	Misc Power Equipment	717,586	1.73%
Total		238,394,740	1.47% remaining life weighted average rate

The Empire District Electric Company
Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Iatan 2 and Common

Gross Salvage 5%
 Cost of Removal 10%
 Net Salvage -5%
 Install Date 2010
 Retirement Date 2070
 Service Life, Yrs 60

Historical and Forecast Plant Additions & Balances
Account: 311 Structures & Improvements

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance	Additions	Retirements		
			Balance	Additions	Retirements		Additions				
1	2009	61	-	10,870,010	-	-	-	10,870,010	-	-	10,870,010
2	2010	60	-	20,273,675	-	-	18,020	20,291,694	-	-	31,161,704
3	2011	59	-	-	-	-	302,294	302,294	-	-	31,463,998
4	2012	58	-	-	-	-	1,391,216	1,391,216	-	-	32,855,214
5	2013	57	-	-	-	-	1,700,795	1,700,795	-	-	34,556,009
6	2014	56	-	-	-	-	21,236	21,236	-	-	34,577,245
7	Total		\$ -	\$ 31,143,684	\$ -	\$ -	\$ 3,433,560	\$ 34,577,245	\$ -	\$ -	\$ 175,484,179
8	Major Additions/Retirements										
9	2009			\$ 10,870,010							
10	2010			\$ 20,273,675							
11											
12											
13	Routine Activity			\$ 3,433,560	\$ -						
14	Historical Interim Activity			1.96%	0.00%						
15	Forecast Interim Activity			0.00%	0.00%						
								<u>Major Additions**</u>			
16	2015	55						-	-		34,577,245
17	2016	54						-	-		34,577,245
18	2017	53						-	-		34,577,245
19	2018	52						-	-		34,577,245
20	2019	51						-	-		34,577,245
21	2020	50						-	-		34,577,245
22	2021	49						-	-		34,577,245
23	2022	48						-	-		34,577,245
24	2023	47						-	-		34,577,245
25	2024	46						-	-		34,577,245
26	2025	45						-	-		34,577,245
27	2026	44						-	-		34,577,245
28	2027	43						-	-		34,577,245
29	2028	42						-	-		34,577,245
30	2029	41						-	-		34,577,245
31	2030	40						-	-		34,577,245
32	2031	39						-	-		34,577,245
33	2032	38						-	-		34,577,245
34	2033	37						-	-		34,577,245
35	2034	36						-	-		34,577,245
36	2035	35						-	-		34,577,245
37	2036	34						-	-		34,577,245
38	2037	33						-	-		34,577,245
39	2038	32						-	-		34,577,245
40	2039	31						-	-		34,577,245
41	2040	30						-	-		34,577,245
42	2041	29						-	-		34,577,245
43	2042	28						-	-		34,577,245
44	2043	27						-	-		34,577,245
45	2044	26						-	-		34,577,245
46	2045	25						-	-		34,577,245
47	2046	24						-	-		34,577,245
48	2047	23						-	-		34,577,245
49	2048	22						-	-		34,577,245
50	2049	21						-	-		34,577,245
51	2050	20						-	-		34,577,245
52	2051	19						-	-		34,577,245
53	2052	18						-	-		34,577,245
54	2053	17						-	-		34,577,245
55	2054	16						-	-		34,577,245
56	2055	15						-	-		34,577,245
57	2056	14						-	-		34,577,245
58	2057	13						-	-		34,577,245
59	2058	12						-	-		34,577,245
60	2059	11						-	-		34,577,245
61	2060	10						-	-		34,577,245
62	2061	9						-	-		34,577,245
63	2062	8						-	-		34,577,245
64	2063	7						-	-		34,577,245

The Empire District Electric Company
 Unit Property Depreciation Rate Analysis

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	2010
Retirement Date	2070
Service Life, Yrs	60

Unit Property: Steam Production, Iatan 2 and Common

Historical and Forecast Plant Additions & Balances
 Account: 311 Structures & Improvements

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year			Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance	Transaction Year				
			Balance	Additions	Retirements		Additions	Additions	Retirements			
65	2064	6						-	-		34,577,245	
66	2065	5						-	-		34,577,245	
67	2066	4						-	-		34,577,245	
68	2067	3						-	-		34,577,245	
69	2068	2						-	-		34,577,245	
70	2069	1						-	-		34,577,245	
71	2070	0								(34,577,245)	-	
							\$	-	\$	34,577,245	\$	2,077,232,635

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	34,577,245
Forecast Additions	-
Total Additions	34,577,245
Gross Salvage Value	1,728,862
Less Cost of Removal	3,457,724
Net Salvage Value	(1,728,862)
Total to be Recovered	36,306,107

Forecast Plant Balances 2,077,232,635

Whole Life Accrual Rate	1.75%
Cost of Removal Accrual Rate	0.17%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.58%

Depreciable Service Life, years 57.2

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	34,577,245
Forecast Additions	-
Gross Salvage Value	1,728,862
Less Cost of Removal	3,457,724
Net Salvage Value	(1,728,862)

Depreciation Reserve Balance 12/31/14 (5,388,070)

Includes Regulatory Plan Amortization and adjustments from Case No. ER-2014-0351

Forecast Total Remaining Life Balance	30,918,037	562,146.13
Forecast Plant Balances	1,901,748,456	
Remaining Life Accrual Rate	1.63%	1.63%

**The Empire District Electric Company
Unit Property Depreciation Rate Analysis**

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	2010
Retirement Date	2070
Service Life, Yrs	60

Unit Property: Steam Production, Iatan 2 and Common

**Historical and Forecast Plant Additions & Balances
Account: 312 Boiler Plant Equipment**

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106 Advance Additions	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements		Additions	Retirements		
			Balance	Additions	Retirements						
68	2067	3						-	-		137,388,055
69	2068	2						-	-		137,388,055
70	2069	1						-	-		137,388,055
71	2070	0								(137,388,055)	-
							\$ -	\$ 137,388,055	\$ -		\$ 8,224,361,440

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	137,388,055
Forecast Additions	-
Total Additions	137,388,055
Gross Salvage Value	6,869,403
Less Cost of Removal	13,738,805
Net Salvage Value	(6,869,403)
Total to be Recovered	144,257,458
Forecast Plant Balances	8,224,361,440

Whole Life Accrual Rate 1.75%

Cost of Removal Accrual Rate 0.17%

Whole Life Accrual Rate (Excluding Cost of Removal) 1.59%

Depreciable Service Life, years 57.0

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	137,388,055
Forecast Additions	-
Gross Salvage Value	6,869,403
Less Cost of Removal	13,738,805
Net Salvage Value	(6,869,403)

Depreciation Reserve Balance 12/31/14 (36,937,440)

Includes Regulatory Plan Amortization and adjustments from Case No. ER-2014-0351

Forecast Total Remaining Life Balance 107,320,017 1,951,273.04

Forecast Plant Balances 7,556,343,019

Remaining Life Accrual Rate 1.42% 1.42%

The Empire District Electric Company	Gross Salvage	5%
Unit Property Depreciation Rate Analysis	Cost of Removal	10%
	Net Salvage	-5%
Unit Property: Steam Production, Iatan 2 and Common	Install Date	2010
	Retirement Date	2070
	Service Life, Yrs	60

Historical and Forecast Plant Additions & Balances
Account: 314 Turbogenerator Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance Additions	Additions	Retirements		
			Balance	Additions	Retirements						
66	2065	5						-	-		48,958,112
67	2066	4						-	-		48,958,112
68	2067	3						-	-		48,958,112
69	2068	2						-	-		48,958,112
70	2069	1						-	-		48,958,112
71	2070	0								(48,958,112)	-
								\$ -	\$ 48,958,112	\$ -	\$ 2,938,202,830

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	48,958,112
Forecast Additions	-
Total Additions	48,958,112
Gross Salvage Value	2,447,906
Less Cost of Removal	4,895,811
Net Salvage Value	(2,447,906)
Total to be Recovered	51,406,018

Forecast Plant Balances 2,938,202,830

Whole Life Accrual Rate 1.75%

Cost of Removal Accrual Rate 0.17%

Whole Life Accrual Rate (Excluding Cost of Removal) 1.58%

Depreciable Service Life, years 57.2

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	48,958,112
Forecast Additions	-
Gross Salvage Value	2,447,906
Less Cost of Removal	4,895,811
Net Salvage Value	(2,447,906)

Depreciation Reserve Balance 12/31/14 (11,581,403)

Includes Regulatory Plan Amortization and adjustments from Case No. ER-2014-0351

Forecast Total Remaining Life Balance 39,824,614 724,083.89

Forecast Plant Balances 2,692,696,163

Remaining Life Accrual Rate 1.48% 1.48%

The Empire District Electric Company	Gross Salvage	5%
Unit Property Depreciation Rate Analysis	Cost of Removal	10%
	Net Salvage	-5%
Unit Property: Steam Production, Iatan 2 and Common	Install Date	2010
	Retirement Date	2070
	Service Life, Yrs	60

Historical and Forecast Plant Additions & Balances
Account: 315 Accessory Electric Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance Additions	Additions	Retirements		
			Balance	Additions	Retirements						
1	2009	61	-	4,716,989	-	-	-	4,716,989	-	-	4,716,989
2	2010	60	-	12,010,875	-	-	-	12,010,875	-	-	16,727,864
3	2011	59	-	-	-	-	3,045	3,045	-	-	16,730,909
4	2012	58	-	-	-	-	1,297	1,297	-	-	16,732,206
5	2013	57	-	-	-	-	9,312	9,312	-	-	16,741,518
6	2014	56	-	-	-	-	12,224	12,224	-	-	16,753,742
7	Total		\$ -	\$ 16,727,864	\$ -	\$ -	\$ 25,879	\$ 16,753,742	\$ -	\$ -	\$ 88,403,228
8	Major Additions/Retirements										
9	2009		\$	4,716,989							
10	2010		\$	12,010,875							
11											
12											
13	Routine Activity		\$	25,879	\$	-					
14	Historical Interim Activity			0.03%		0.00%					
15	Forecast Interim Activity			0.00%		0.00%					
							<u>Major Additions**</u>				
16	2015	55						-	-		16,753,742
17	2016	54						-	-		16,753,742
18	2017	53						-	-		16,753,742
19	2018	52						-	-		16,753,742
20	2019	51						-	-		16,753,742
21	2020	50						-	-		16,753,742
22	2021	49						-	-		16,753,742
23	2022	48						-	-		16,753,742
24	2023	47						-	-		16,753,742
25	2024	46						-	-		16,753,742
26	2025	45						-	-		16,753,742
27	2026	44						-	-		16,753,742
28	2027	43						-	-		16,753,742
29	2028	42						-	-		16,753,742
30	2029	41						-	-		16,753,742
31	2030	40						-	-		16,753,742
32	2031	39						-	-		16,753,742
33	2032	38						-	-		16,753,742
34	2033	37						-	-		16,753,742
35	2034	36						-	-		16,753,742
36	2035	35						-	-		16,753,742
37	2036	34						-	-		16,753,742
38	2037	33						-	-		16,753,742
39	2038	32						-	-		16,753,742
40	2039	31						-	-		16,753,742
41	2040	30						-	-		16,753,742
42	2041	29						-	-		16,753,742
43	2042	28						-	-		16,753,742
44	2043	27						-	-		16,753,742
45	2044	26						-	-		16,753,742
46	2045	25						-	-		16,753,742
47	2046	24						-	-		16,753,742
48	2047	23						-	-		16,753,742
49	2048	22						-	-		16,753,742
50	2049	21						-	-		16,753,742
51	2050	20						-	-		16,753,742
52	2051	19						-	-		16,753,742
53	2052	18						-	-		16,753,742
54	2053	17						-	-		16,753,742
55	2054	16						-	-		16,753,742
56	2055	15						-	-		16,753,742
57	2056	14						-	-		16,753,742
58	2057	13						-	-		16,753,742
59	2058	12						-	-		16,753,742
60	2059	11						-	-		16,753,742
61	2060	10						-	-		16,753,742
62	2061	9						-	-		16,753,742
63	2062	8						-	-		16,753,742
64	2063	7						-	-		16,753,742
65	2064	6						-	-		16,753,742

The Empire District Electric Company	Gross Salvage	5%
Unit Property Depreciation Rate Analysis	Cost of Removal	10%
	Net Salvage	-5%
Unit Property: Steam Production, Iatan 2 and Common	Install Date	2010
	Retirement Date	2070
	Service Life, Yrs	60

Historical and Forecast Plant Additions & Balances
Account: 315 Accessory Electric Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance Additions	Additions	Retirements		
			Balance	Additions	Retirements						
66	2065	5						-	-		16,753,742
67	2066	4						-	-		16,753,742
68	2067	3						-	-		16,753,742
69	2068	2						-	-		16,753,742
70	2069	1						-	-		16,753,742
71	2070	0								(16,753,742)	-
								\$ -	\$ 16,753,742	\$ -	\$ 1,009,859,063

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	16,753,742
Forecast Additions	-
Total Additions	16,753,742
Gross Salvage Value	837,687
Less Cost of Removal	1,675,374
Net Salvage Value	(837,687)
Total to be Recovered	17,591,430

Forecast Plant Balances 1,009,859,063

Whole Life Accrual Rate 1.74%

Cost of Removal Accrual Rate 0.17%

Whole Life Accrual Rate (Excluding Cost of Removal) 1.58%

Depreciable Service Life, years 57.4

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	16,753,742
Forecast Additions	-
Gross Salvage Value	837,687
Less Cost of Removal	1,675,374
Net Salvage Value	(837,687)

Depreciation Reserve Balance 12/31/14 (3,049,438)

Includes Regulatory Plan Amortization and adjustments from Case No. ER-2014-0351

Forecast Total Remaining Life Balance 14,541,992 264,399.86

Forecast Plant Balances 921,455,835

Remaining Life Accrual Rate 1.58% 1.58%

The Empire District Electric Company
Unit Property Depreciation Rate Analysis
Unit Property: Steam Production, Iatan 2 and Common

Gross Salvage 5%
Cost of Removal 10%
Net Salvage -5%
Install Date 2010
Retirement Date 2070
Service Life, Yrs 60

Historical and Forecast Plant Additions & Balances
Account: 316 Miscellaneous Plant Equipment

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E] [F]				[G]	[H] [I]		[J]	[K]
			Reported Per Books			Vintage Year	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Advance		Additions	Retirements			
			Balance	Additions	Retirements	Retirements	Additions	Retirements			
1	2009	61	-	260,679	-	-	-	260,679	-	-	260,679
2	2010	60	-	140,507	-	-	19,577	160,084	-	-	420,763
3	2011	59	-	1,672	-	-	32,189	33,861	-	-	454,624
4	2012	58	-	-	-	-	99,364	99,364	-	-	553,988
5	2013	57	-	-	-	-	54,229	54,229	-	-	608,216
6	2014	56	-	-	-	-	109,370	109,370	-	-	717,586
7	Total		\$ -	\$ 402,858	\$ -	\$ -	\$ 314,729	\$ 717,586	\$ -	\$ -	\$ 3,015,856
8	Major Additions/Retirements										
9	2009		\$	260,679							
10	2010		\$	140,507							
11	2012		\$	99,364							
12	2014		\$	109,370							
13	Routine Activity		\$	107,668	\$	-					
14	Historical Interim Activity			3.57%		0.00%					
15	Forecast Interim Activity			0.00%		0.00%					
							Major Additions**				
16	2015	55						-	-		717,586
17	2016	54						-	-		717,586
18	2017	53						-	-		717,586
19	2018	52						-	-		717,586
20	2019	51						-	-		717,586
21	2020	50						-	-		717,586
22	2021	49						-	-		717,586
23	2022	48						-	-		717,586
24	2023	47						-	-		717,586
25	2024	46						-	-		717,586
26	2025	45						-	-		717,586
27	2026	44						-	-		717,586
28	2027	43						-	-		717,586
29	2028	42						-	-		717,586
30	2029	41						-	-		717,586
31	2030	40						-	-		717,586
32	2031	39						-	-		717,586
33	2032	38						-	-		717,586
34	2033	37						-	-		717,586
35	2034	36						-	-		717,586
36	2035	35						-	-		717,586
37	2036	34						-	-		717,586
38	2037	33						-	-		717,586
39	2038	32						-	-		717,586
40	2039	31						-	-		717,586
41	2040	30						-	-		717,586
42	2041	29						-	-		717,586
43	2042	28						-	-		717,586
44	2043	27						-	-		717,586
45	2044	26						-	-		717,586
46	2045	25						-	-		717,586
47	2046	24						-	-		717,586
48	2047	23						-	-		717,586
49	2048	22						-	-		717,586
50	2049	21						-	-		717,586
51	2050	20						-	-		717,586
52	2051	19						-	-		717,586
53	2052	18						-	-		717,586
54	2053	17						-	-		717,586
55	2054	16						-	-		717,586
56	2055	15						-	-		717,586
57	2056	14						-	-		717,586
58	2057	13						-	-		717,586
59	2058	12						-	-		717,586
60	2059	11						-	-		717,586
61	2060	10						-	-		717,586
62	2061	9						-	-		717,586
63	2062	8						-	-		717,586
64	2063	7						-	-		717,586
65	2064	6						-	-		717,586
66	2065	5						-	-		717,586
67	2066	4						-	-		717,586
68	2067	3						-	-		717,586
69	2068	2						-	-		717,586
70	2069	1						-	-		717,586
71	2070	0						-	-		717,586
										(717,586)	-
			\$	-	\$	717,586	\$	-	\$	-	\$ 42,483,097

The Empire District Electric Company
Unit Property Depreciation Rate Analysis
Unit Property: Steam Production, Iatan 2 and Common

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	2010
Retirement Date	2070
Service Life, Yrs	60

Historical and Forecast Plant Additions & Balances
Account: 316 Miscellaneous Plant Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance	Additions	Retirements		
			Balance	Additions	Retirements		Additions				

** From 2015 capital budget

The Empire District Electric Company
Unit Property Depreciation Rate Analysis
 Unit Property: Steam Production, Iatan 2 and Common

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	2010
Retirement Date	2070
Service Life, Yrs	60

Historical and Forecast Plant Additions & Balances
Account: 316 Miscellaneous Plant Equipment

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]		
Line	Vintage Year	Vintage Age	Reported Per Books			Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*		
			Transaction Year		Vintage Year	Advance	Additions	Retirements				
			Balance	Additions	Retirements	Retirements	Additions	Retirements				
Whole Life Depreciation Rate Calculation												
										Historical Additions	717,586	
										Forecast Additions	-	
										Total Additions	717,586	
										Gross Salvage Value	35,879	
										Less Cost of Removal	71,759	
										Net Salvage Value	(35,879)	
										Total to be Recovered	753,466	
										Forecast Plant Balances	42,483,097	
										Whole Life Accrual Rate	1.77%	
										Cost of Removal Accrual Rate	0.17%	
										Whole Life Accrual Rate (Excluding Cost of Removal)	1.60%	
										Depreciable Service Life, years	56.4	
Remaining Life Depreciation Rate Calculation												
										Account Balance 12/31/14	717,586	
										Forecast Additions	-	
										Gross Salvage Value	35,879	
										Less Cost of Removal	71,759	
										Net Salvage Value	(35,879)	
										Depreciation Reserve Balance 12/31/14	(70,673)	
<i>Includes Regulatory Plan Amortization and adjustments from Case No. ER-2014-0351</i>												
										Forecast Total Remaining Life Balance	682,792	12,414.40
										Forecast Plant Balances	39,467,242	
										Remaining Life Accrual Rate	1.73%	1.73%

Summary by Plant
The Empire District Electric Company
Ozark Beach Hydro Plant

Account	Description	Direct Investment 2014\$	Depreciation Rate
331	Structures & Improvements	796,556	1.71%
332	Reservoirs, Dams, and Waterways	3,414,911	1.76%
333	Water Wheels, Turbines and Generators	3,175,990	1.21%
334	Accessory Electric Equipment	1,375,734	2.30%
335	Miscellaneous Power Plant Equipment	452,661	1.67%
Total		9,215,852	1.64% remaining life weighted average rate

The Empire District Electric Company Gross Salvage 5%
 Cost of Removal 10%
 Unit Property Depreciation Rate Analysis Net Salvage -5%
 Unit Property: Hydraulic Production, Ozark Beach Hydro Plant Install Date 1931
 Retirement Date 2053
 Service Life, Yrs 122

**Historical and Forecast Plant Additions & Balances
 Account 331 Structures & Improvements**

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year		Additions	Retirements		
			Balance	Additions	Retirements	Retirements					
100	2012	41	-	-	-	-	-	-	-	677,755	
101	2013	40	-	-	-	3,636	3,636	-	-	681,391	
102	2014	39	-	-	(3,538)	-	118,703	118,703	(3,538)	796,556	
103	Total		\$ 474,861	\$ 217,808	\$ (18,452)	\$ (18,452)	\$ 122,339	\$ 815,008	\$ (18,452)	\$ 23,703,207	
104	Major Additions/Retirements										
105	2014			\$ 118,703							
106											
107	Routine Activity			\$ 221,444	\$ (18,452)						
108	Historical Interim Activity			0.93%	-0.08%						
109	Forecast Interim Activity			0.00%	-0.08%						
							<u>Major Additions**</u>				
110	2015	38						(620)		795,936	
111	2016	37						(620)		795,316	
112	2017	36						(619)		794,697	
113	2018	35						(619)		794,079	
114	2019	34						(618)		793,460	
115	2020	33						(618)		792,843	
116	2021	32						(617)		792,226	
117	2022	31						(617)		791,609	
118	2023	30						(616)		790,993	
119	2024	29						(616)		790,377	
120	2025	28						(615)		789,762	
121	2026	27						(615)		789,147	
122	2027	26						(614)		788,532	
123	2028	25						(614)		787,919	
124	2029	24						(613)		787,305	
125	2030	23						(613)		786,692	
126	2031	22						(612)		786,080	
127	2032	21						(612)		785,468	
128	2033	20						(611)		784,857	
129	2034	19						(611)		784,246	
130	2035	18						(610)		783,635	
131	2036	17						(610)		783,025	
132	2037	16						(610)		782,416	
133	2038	15						(609)		781,806	
134	2039	14						(609)		781,198	
135	2040	13						(608)		780,590	
136	2041	12						(608)		779,982	
137	2042	11						(607)		779,375	
138	2043	10						(607)		778,768	
139	2044	9						(606)		778,162	
140	2045	8						(606)		777,556	
141	2046	7						(605)		776,951	
142	2047	6						(605)		776,346	
143	2048	5						(604)		775,742	
144	2049	4						(604)		775,138	
145	2050	3						(603)		774,535	
146	2051	2						(603)		773,932	
147	2052	1						(602)		773,329	
148	2053	0							(773,329)	-	
								\$ 815,008	\$ (41,679)	\$ 53,517,234	

* Through vintage year 1999 the balances are 1999 remaining plant balances.
 ** From 2015 capital budget

Whole Life Depreciation Rate Calculation	
Historical Additions	815,008
Forecast Additions	-
Total Additions	815,008
Gross Salvage Value	38,666
Less Cost of Removal	77,333
Net Salvage Value	(38,666)
Total to be Recovered	853,674
Forecast Plant Balances	53,517,234
Whole Life Accrual Rate	1.60%
Cost of Removal Accrual Rate	0.14%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.45%
Depreciable Service Life, years	62.7

Remaining Life Depreciation Rate Calculation	
Account Balance - 12/31/14	796,556
Forecast Additions	-
Gross Salvage Value	38,666
Less Cost of Removal	77,333
Net Salvage Value	(38,666)

Depreciation Reserve Balance 12/31/14	(325,891)	Garren Proposed
Forecast Total Remaining Life Balance	509,332	Annual Accrual
Forecast Plant Balances	29,814,027	13,403
Remaining Life Accrual Rate	1.71%	1.68%

The Empire District Electric Company	Gross Salvage	5%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-5%
Unit Property: Hydraulic Production, Ozark Beach Hydro Plant	Install Date	1931
	Retirement Date	2053
	Service Life, Yrs	122

**Historical and Forecast Plant Additions & Balances
Accou 332 Reservoirs, Dams, and Waterways**

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advances	Retirements				
			Balance	Additions	Retirements	Retirements	Additions	Additions	Retirements			
1	1913	140	976,972	-	-	(2,915)	-	976,972	-	-	976,972	
2	1914	139	-	-	-	-	-	-	-	-	976,972	
3	1915	138	-	-	-	-	-	-	-	-	976,972	
4	1916	137	-	-	-	-	-	-	-	-	976,972	
5	1917	136	-	-	-	-	-	-	-	-	976,972	
6	1918	135	-	-	-	-	-	-	-	-	976,972	
7	1919	134	-	-	-	-	-	-	-	-	976,972	
8	1920	133	-	-	-	-	-	-	-	-	976,972	
9	1921	132	-	-	-	-	-	-	-	-	976,972	
10	1922	131	-	-	-	-	-	-	-	-	976,972	
11	1923	130	-	-	-	-	-	-	-	-	976,972	
12	1924	129	-	-	-	-	-	-	-	-	976,972	
13	1925	128	-	-	-	-	-	-	-	-	976,972	
14	1926	127	-	-	-	-	-	-	-	-	976,972	
15	1927	126	-	-	-	-	-	-	-	-	976,972	
16	1928	125	-	-	-	-	-	-	-	-	976,972	
17	1929	124	-	-	-	-	-	-	-	-	976,972	
18	1930	123	-	-	-	-	-	-	-	-	976,972	
19	1931	122	-	-	-	-	-	-	-	-	976,972	
20	1932	121	-	-	-	-	-	-	-	-	976,972	
21	1933	120	-	-	-	-	-	-	-	-	976,972	
22	1934	119	-	-	-	-	-	-	-	-	976,972	
23	1935	118	-	-	-	-	-	-	-	-	976,972	
24	1936	117	-	-	-	-	-	-	-	-	976,972	
25	1937	116	207,338	-	-	-	-	207,338	-	-	1,184,310	
26	1938	115	502	-	-	-	-	502	-	-	1,184,812	
27	1939	114	1,073	-	-	-	-	1,073	-	-	1,185,885	
28	1940	113	54	-	-	-	-	54	-	-	1,185,939	
29	1941	112	-	-	-	-	-	-	-	-	1,185,939	
30	1942	111	-	-	-	-	-	-	-	-	1,185,939	
31	1943	110	-	-	-	-	-	-	-	-	1,185,939	
32	1944	109	-	-	-	-	-	-	-	-	1,185,939	
33	1945	108	-	-	-	-	-	-	-	-	1,185,939	
34	1946	107	-	-	-	-	-	-	-	-	1,185,939	
35	1947	106	-	-	-	-	-	-	-	-	1,185,939	
36	1948	105	-	-	-	-	-	-	-	-	1,185,939	
37	1949	104	-	-	-	-	-	-	-	-	1,185,939	
38	1950	103	-	-	-	-	-	-	-	-	1,185,939	
39	1951	102	-	-	-	-	-	-	-	-	1,185,939	
40	1952	101	-	-	-	-	-	-	-	-	1,185,939	
41	1953	100	-	-	-	-	-	-	-	-	1,185,939	
42	1954	99	-	-	-	-	-	-	-	-	1,185,939	
43	1955	98	-	-	-	-	-	-	-	-	1,185,939	
44	1956	97	-	-	-	-	-	-	-	-	1,185,939	
45	1957	96	-	-	-	-	-	-	-	-	1,185,939	
46	1958	95	1,707	-	-	-	-	1,707	-	-	1,187,646	
47	1959	94	-	-	-	-	-	-	-	-	1,187,646	
48	1960	93	-	-	-	-	-	-	-	-	1,187,646	
49	1961	92	-	-	-	-	-	-	-	-	1,187,646	
50	1962	91	-	-	-	-	-	-	-	-	1,187,646	
51	1963	90	-	-	-	-	-	-	-	-	1,187,646	
52	1964	89	-	-	-	-	-	-	-	-	1,187,646	
53	1965	88	-	-	-	-	-	-	-	-	1,187,646	
54	1966	87	-	-	-	-	-	-	-	-	1,187,646	
55	1967	86	-	-	-	-	-	-	-	-	1,187,646	
56	1968	85	-	-	-	-	-	-	-	-	1,187,646	
57	1969	84	-	-	-	-	-	-	-	-	1,187,646	
58	1970	83	-	-	-	-	-	-	-	-	1,187,646	
59	1971	82	-	-	-	-	-	-	-	-	1,187,646	
60	1972	81	-	-	-	-	-	-	-	-	1,187,646	
61	1973	80	-	-	-	-	-	-	-	-	1,187,646	
62	1974	79	-	-	-	-	-	-	-	-	1,187,646	
63	1975	78	-	-	-	-	-	-	-	-	1,187,646	
64	1976	77	-	-	-	-	-	-	-	-	1,187,646	
65	1977	76	-	-	-	-	-	-	-	-	1,187,646	
66	1978	75	-	-	-	-	-	-	-	-	1,187,646	
67	1979	74	-	-	-	-	-	-	-	-	1,187,646	
68	1980	73	45,160	-	-	-	-	45,160	-	-	1,232,806	
69	1981	72	-	-	-	-	-	-	-	-	1,232,806	
70	1982	71	-	-	-	-	-	-	-	-	1,232,806	
71	1983	70	-	-	-	-	-	-	-	-	1,232,806	
72	1984	69	-	-	-	-	-	-	-	-	1,232,806	
73	1985	68	3,332	-	-	-	-	3,332	-	-	1,236,138	
74	1986	67	12,376	-	-	-	-	12,376	-	-	1,248,514	
75	1987	66	15,800	-	-	(15,800)	-	15,800	-	-	1,264,314	
76	1988	65	90,509	-	-	(88,227)	-	90,509	-	-	1,354,823	
77	1989	64	8,330	-	-	-	-	8,330	-	-	1,363,153	
78	1990	63	-	-	-	-	-	-	-	-	1,363,153	
79	1991	62	5,896	-	-	-	-	5,896	-	-	1,369,049	
80	1992	61	-	-	-	-	-	-	-	-	1,369,049	
81	1993	60	13,235	-	-	(13,235)	-	13,235	-	-	1,382,284	
82	1994	59	14,976	-	-	-	-	14,976	-	-	1,397,260	
83	1995	58	-	-	-	-	-	-	-	-	1,397,260	
84	1996	57	9,363	-	-	-	-	9,363	-	-	1,406,623	
85	1997	56	5,210	-	-	-	-	5,210	-	-	1,411,833	
86	1998	55	10,957	-	-	-	-	10,957	-	-	1,422,790	
87	1999	54	-	-	-	-	-	-	-	-	1,422,790	
88	2000	53	-	-	-	-	-	-	-	-	1,422,790	
89	2001	52	-	-	-	-	-	-	-	-	1,422,790	
90	2002	51	-	25,562	-	(25,562)	-	25,562	-	-	1,448,352	
91	2003	50	-	-	(13,235)	-	-	-	(13,235)	-	1,435,117	
92	2004	49	-	49,728	-	(26,286)	-	49,728	-	-	1,484,845	
93	2005	48	-	-	(15,000)	-	-	-	(15,000)	-	1,469,845	
94	2006	47	-	-	(19,547)	-	-	-	(19,547)	-	1,450,298	
95	2007	46	-	-	-	-	-	-	-	-	1,450,298	
96	2008	45	-	85,752	(6,015)	(55,809)	-	85,752	(6,015)	-	1,530,035	
97	2009	44	-	158,956	(26,286)	-	-	158,956	(26,286)	-	1,662,705	
98	2010	43	-	-	(18,542)	-	-	-	(18,542)	-	1,644,164	
99	2011	42	-	1,899,957	-	-	-	1,899,957	-	-	3,544,120	

The Empire District Electric Company Gross Salvage 5%
 Cost of Removal 10%
 Unit Property Depreciation Rate Analysis Net Salvage -5%
 Unit Property: Hydraulic Production, Ozark Beach Hydro Plant Install Date 1931
 Retirement Date 2053
 Service Life, Yrs 122

**Historical and Forecast Plant Additions & Balances
 Account 332 Reservoirs, Dams, and Waterways**

Line	Vintage Year	Vintage Age	Reported Per Books			Account 106 Vintage Year Retirements	Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year					Additions	Retirements		
			Balance	Additions	Retirements						
100	2012	41	-	-	-	-	-	-	-	3,544,120	
101	2013	40	-	-	(89,027)	-	-	(89,027)	-	3,455,094	
102	2014	39	-	-	(40,182)	-	-	(40,182)	-	3,414,911	
103	Total		\$ 1,422,790	\$ 2,219,955	\$ (227,834)	\$ (227,834)	\$ -	\$ 3,642,745	\$ (227,834)	\$ -	\$ 131,429,997
104	Major Additions/Retirements										
105	2011			\$ 1,899,957							
106											
107	Routine Activity										
108				\$ 319,998	\$ (227,834)						
109				0.24%	-0.17%						
				0.00%	-0.17%						
							Major Additions**				
110	2015	38					-	(5,920)			3,408,991
111	2016	37					-	(5,909)			3,403,082
112	2017	36					-	(5,899)			3,397,183
113	2018	35					-	(5,889)			3,391,294
114	2019	34					-	(5,879)			3,385,415
115	2020	33					-	(5,869)			3,379,546
116	2021	32					-	(5,858)			3,373,688
117	2022	31					-	(5,848)			3,367,839
118	2023	30					-	(5,838)			3,362,001
119	2024	29					-	(5,828)			3,356,173
120	2025	28					-	(5,818)			3,350,355
121	2026	27					-	(5,808)			3,344,547
122	2027	26					-	(5,798)			3,338,750
123	2028	25					-	(5,788)			3,332,962
124	2029	24					-	(5,778)			3,327,184
125	2030	23					-	(5,768)			3,321,417
126	2031	22					-	(5,758)			3,315,659
127	2032	21					-	(5,748)			3,309,911
128	2033	20					-	(5,738)			3,304,173
129	2034	19					-	(5,728)			3,298,446
130	2035	18					-	(5,718)			3,292,728
131	2036	17					-	(5,708)			3,287,020
132	2037	16					-	(5,698)			3,281,322
133	2038	15					-	(5,688)			3,275,634
134	2039	14					-	(5,678)			3,269,955
135	2040	13					-	(5,668)			3,264,287
136	2041	12					-	(5,659)			3,258,628
137	2042	11					-	(5,649)			3,252,979
138	2043	10					-	(5,639)			3,247,340
139	2044	9					-	(5,629)			3,241,711
140	2045	8					-	(5,620)			3,236,092
141	2046	7					-	(5,610)			3,230,482
142	2047	6					-	(5,600)			3,224,882
143	2048	5					-	(5,590)			3,219,291
144	2049	4					-	(5,581)			3,213,711
145	2050	3					-	(5,571)			3,208,140
146	2051	2					-	(5,561)			3,202,579
147	2052	1					-	(5,552)			3,197,027
148	2053	0							(3,197,027)		-
								\$ 3,642,745	\$ (445,718)		\$ 256,902,420

* Through vintage year 1999 the balances are 1999 remaining plant balances.
 ** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	3,642,745
Forecast Additions	-
Total Additions	3,642,745
Gross Salvage Value	159,851
Less Cost of Removal	319,703
Net Salvage Value	(159,851)
Total to be Recovered	3,802,596

Forecast Plant Balances 256,902,420

Whole Life Accrual Rate 1.48%

Cost of Removal Accrual Rate 0.12%

Whole Life Accrual Rate (Excluding Cost of Removal) 1.36%

Depreciable Service Life, years 67.6

Remaining Life Depreciation Rate Calculation

Account Balance - 12/31/14	3,414,911
Forecast Additions	-
Gross Salvage Value	159,851
Less Cost of Removal	319,703
Net Salvage Value	(159,851)

Depreciation Reserve Balance 12/31/14 (1,368,904)

Garren Proposed

Forecast Total Remaining Life Balance 2,205,859 **Annual Accrual** 58,049

Forecast Plant Balances 125,472,423

Remaining Life Accrual Rate 1.76% 1.70%

The Empire District Electric Company Gross Salvage 5%
 Cost of Removal 10%
 Unit Property Depreciation Rate Analysis Net Salvage -5%
 Unit Property: Hydraulic Production, Ozark Beach Hydro Plant Install Date 1931
 Retirement Date 2053
 Service Life, Yrs 122

Historical and Forecast Plant Additions & Balances
Account 333 Water Wheels, Turbines and Generators

Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106 Advances	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year					Retirements	Additions			Retirements
			Balance	Additions	Retirements							
100	2012	41	-	-	-	-	-	-	-	1,652,558		
101	2013	40	-	-	-	49,787	49,787	-	-	1,702,345		
102	2014	39	-	-	(124)	1,473,768	1,473,768	(124)	-	3,175,990		
103	Total		\$ 353,037	\$ 1,395,313	\$ (95,916)	\$ (95,916)	\$ 1,523,556	\$ 3,271,906	\$ (95,916)	\$ -	\$ 44,210,097	

104 Major Additions/Retirements

105	2002		\$ 434,538							
106	2014		\$ 1,473,768							
107	Routine Activity		\$ 1,010,562	\$ (95,916)						
108	Historical Interim Activity		2.29%	-0.22%						
109	Forecast Interim Activity		0.00%	-0.22%						

Major Additions**

110	2015	38						(6,890)		3,169,099	
111	2016	37						(6,876)		3,162,224	
112	2017	36						(6,861)		3,155,363	
113	2018	35						(6,846)		3,148,517	
114	2019	34				3,700,000		(6,831)		6,841,686	
115	2020	33						(14,843)		6,826,843	
116	2021	32						(14,811)		6,812,032	
117	2022	31						(14,779)		6,797,253	
118	2023	30						(14,747)		6,782,506	
119	2024	29						(14,715)		6,767,791	
120	2025	28						(14,683)		6,753,108	
121	2026	27						(14,651)		6,738,456	
122	2027	26						(14,619)		6,723,837	
123	2028	25						(14,588)		6,709,249	
124	2029	24						(14,556)		6,694,693	
125	2030	23						(14,524)		6,680,169	
126	2031	22						(14,493)		6,665,676	
127	2032	21						(14,462)		6,651,214	
128	2033	20						(14,430)		6,636,784	
129	2034	19						(14,399)		6,622,385	
130	2035	18						(14,368)		6,608,018	
131	2036	17						(14,336)		6,593,681	
132	2037	16						(14,305)		6,579,376	
133	2038	15						(14,274)		6,565,102	
134	2039	14						(14,243)		6,550,858	
135	2040	13						(14,212)		6,536,646	
136	2041	12						(14,182)		6,522,464	
137	2042	11						(14,151)		6,508,313	
138	2043	10						(14,120)		6,494,193	
139	2044	9						(14,089)		6,480,104	
140	2045	8						(14,059)		6,466,045	
141	2046	7						(14,028)		6,452,016	
142	2047	6						(13,998)		6,438,018	
143	2048	5						(13,968)		6,424,051	
144	2049	4						(13,937)		6,410,114	
145	2050	3						(13,907)		6,396,206	
146	2051	2						(13,877)		6,382,330	
147	2052	1						(13,847)		6,368,483	
148	2053	0							(6,368,483)	-	
							\$ 3,700,000	\$ 3,271,906	(603,423)		\$ 281,325,000

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	3,271,906
Forecast Additions	3,700,000
Total Additions	6,971,906
Gross Salvage Value	318,424
Less Cost of Removal	636,848
Net Salvage Value	(318,424)
Total to be Recovered	7,290,330

Forecast Plant Balances 281,325,000

Whole Life Accrual Rate 2.59%

Cost of Removal Accrual Rate 0.23%

Whole Life Accrual Rate (Excluding Cost of Removal) 2.37%

Depreciable Service Life, years 38.6

Remaining Life Depreciation Rate Calculation

Account Balance - 12/31/14	3,175,990
Forecast Additions	-
Gross Salvage Value	318,424
Less Cost of Removal	636,848
Net Salvage Value	(318,424)

Depreciation Reserve Balance 12/31/14 (617,071)

Garren Proposed

Forecast Total Remaining Life Balance 2,877,343 **75,720**

Forecast Plant Balances 237,114,902

Remaining Life Accrual Rate 1.21% **2.38%**

The Empire District Electric Company Gross Salvage 5%
 Cost of Removal 10%
 Unit Property Depreciation Rate Analysis Net Salvage -5%
 Unit Property: Hydraulic Production, Ozark Beach Hydro Plant Install Date 1931
 Retirement Date 2053
 Service Life, Yrs 122

Historical and Forecast Plant Additions & Balances
Account 334 Accessory Electric Equipment

Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year					Retirements	Additions			Retirements
			Balance	Additions	Retirements							
100	2012	41	-	-	(9,286)	-	30,624	30,624	(9,286)	-	1,258,925	
101	2013	40	-	45,234	-	-	70,765	115,999	-	-	1,374,925	
102	2014	39	-	-	(6,766)	-	7,576	7,576	(6,766)	-	1,375,734	
103	Total		\$ 737,345	\$ 222,122	\$ (86,530)	\$ (86,530)	\$ 108,965	\$ 1,068,432	\$ (86,530)	\$ 393,832	\$ 25,254,206	

104 Major Additions/Retirements

105

106

106 Routine Activity \$ 331,087 \$ (86,530)

107 Historical Interim Activity 1.31% -0.34%

108 Forecast Interim Activity 0.00% -0.34%

Major Additions**

109	2015	38	-	-	-	-	-	(4,714)	-	-	1,371,021
110	2016	37	-	-	-	-	-	(4,698)	-	-	1,366,323
111	2017	36	-	-	-	-	-	(4,681)	-	-	1,361,642
112	2018	35	-	-	-	-	-	(4,665)	-	-	1,356,976
113	2019	34	-	-	-	-	-	(4,649)	-	-	1,352,327
114	2020	33	-	-	-	-	-	(4,634)	-	-	1,347,693
115	2021	32	-	-	-	-	-	(4,618)	-	-	1,343,076
116	2022	31	-	-	-	-	-	(4,602)	-	-	1,338,474
117	2023	30	-	-	-	-	-	(4,586)	-	-	1,333,888
118	2024	29	-	-	-	-	-	(4,570)	-	-	1,329,317
119	2025	28	-	-	-	-	-	(4,555)	-	-	1,324,763
120	2026	27	-	-	-	-	-	(4,539)	-	-	1,320,223
121	2027	26	-	-	-	-	-	(4,524)	-	-	1,315,700
122	2028	25	-	-	-	-	-	(4,508)	-	-	1,311,192
123	2029	24	-	-	-	-	-	(4,493)	-	-	1,306,699
124	2030	23	-	-	-	-	-	(4,477)	-	-	1,302,222
125	2031	22	-	-	-	-	-	(4,462)	-	-	1,297,760
126	2032	21	-	-	-	-	-	(4,447)	-	-	1,293,314
127	2033	20	-	-	-	-	-	(4,431)	-	-	1,288,882
128	2034	19	-	-	-	-	-	(4,416)	-	-	1,284,466
129	2035	18	-	-	-	-	-	(4,401)	-	-	1,280,065
130	2036	17	-	-	-	-	-	(4,386)	-	-	1,275,679
131	2037	16	-	-	-	-	-	(4,371)	-	-	1,271,308
132	2038	15	-	-	-	-	-	(4,356)	-	-	1,266,952
133	2039	14	-	-	-	-	-	(4,341)	-	-	1,262,611
134	2040	13	-	-	-	-	-	(4,326)	-	-	1,258,285
135	2041	12	-	-	-	-	-	(4,311)	-	-	1,253,974
136	2042	11	-	-	-	-	-	(4,297)	-	-	1,249,677
137	2043	10	-	-	-	-	-	(4,282)	-	-	1,245,395
138	2044	9	-	-	-	-	-	(4,267)	-	-	1,241,128
139	2045	8	-	-	-	-	-	(4,253)	-	-	1,236,876
140	2046	7	-	-	-	-	-	(4,238)	-	-	1,232,638
141	2047	6	-	-	-	-	-	(4,223)	-	-	1,228,414
142	2048	5	-	-	-	-	-	(4,209)	-	-	1,224,205
143	2049	4	-	-	-	-	-	(4,195)	-	-	1,220,011
144	2050	3	-	-	-	-	-	(4,180)	-	-	1,215,831
145	2051	2	-	-	-	-	-	(4,166)	-	-	1,211,665
146	2052	1	-	-	-	-	-	(4,152)	-	-	1,207,513
147	2053	0	-	-	-	-	-	-	(1,207,513)	-	-
								\$ 1,068,432	\$ (254,751)		\$ 74,182,391

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	1,068,432
Forecast Additions	-
Total Additions	1,068,432
Gross Salvage Value	60,376
Less Cost of Removal	120,751
Net Salvage Value	(60,376)
Total to be Recovered	1,128,808
Forecast Plant Balances	74,182,391

Whole Life Accrual Rate	1.52%
Cost of Removal Accrual Rate	0.16%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.36%
Depreciable Service Life, years	65.7

Remaining Life Depreciation Rate Calculation

Account Balance - 12/31/14	1,375,734
Forecast Additions	-
Gross Salvage Value	60,376
Less Cost of Removal	120,751
Net Salvage Value	(60,376)

Depreciation Reserve Balance 12/31/14	(309,583)	Garren Proposed
Forecast Total Remaining Life Balance	1,126,527	Annual Accrual
Forecast Plant Balances	48,928,184	29,645
Remaining Life Accrual Rate	2.30%	2.15%

The Empire District Electric Company Gross Salvage 5%
 Cost of Removal 10%
 Unit Property Depreciation Rate Analysis Net Salvage -5%
 Unit Property: Hydraulic Production, Ozark Beach Hydro Plant Install Date 1931
 Retirement Date 2053
 Service Life, Yrs 122

Historical and Forecast Plant Additions & Balances
Accoui 335 Miscellaneous Power Plant Equipment

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106 Advances	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year		Additions	Retirements		
			Balance	Additions	Retirements	Retirements					
1	1913	140	-	-	-	-	-	-	-	-	
2	1914	139	-	-	-	-	-	-	-	-	
3	1915	138	-	-	-	-	-	-	-	-	
4	1916	137	-	-	-	-	-	-	-	-	
5	1917	136	-	-	-	-	-	-	-	-	
6	1918	135	-	-	-	-	-	-	-	-	
7	1919	134	-	-	-	-	-	-	-	-	
8	1920	133	-	-	-	-	-	-	-	-	
9	1921	132	-	-	-	-	-	-	-	-	
10	1922	131	-	-	-	-	-	-	-	-	
11	1923	130	-	-	-	-	-	-	-	-	
12	1924	129	-	-	-	-	-	-	-	-	
13	1925	128	-	-	-	-	-	-	-	-	
14	1926	127	418	-	-	-	418	-	-	418	
15	1927	126	-	-	-	-	-	-	-	418	
16	1928	125	-	-	-	-	-	-	-	418	
17	1929	124	-	-	-	-	-	-	-	418	
18	1930	123	-	-	-	-	-	-	-	418	
19	1931	122	16,621	-	-	-	16,621	-	-	17,039	
20	1932	121	-	-	-	-	-	-	-	17,039	
21	1933	120	5	-	-	-	5	-	-	17,044	
22	1934	119	-	-	-	-	-	-	-	17,044	
23	1935	118	147	-	-	-	147	-	-	17,191	
24	1936	117	125	-	-	-	125	-	-	17,316	
25	1937	116	-	-	-	-	-	-	-	17,316	
26	1938	115	-	-	-	-	-	-	-	17,316	
27	1939	114	69	-	-	-	69	-	-	17,385	
28	1940	113	2,595	-	-	-	2,595	-	-	19,980	
29	1941	112	-	-	-	-	-	-	-	19,980	
30	1942	111	-	-	-	-	-	-	-	19,980	
31	1943	110	415	-	-	-	415	-	-	20,395	
32	1944	109	8	-	-	-	8	-	-	20,403	
33	1945	108	152	-	-	-	152	-	-	20,555	
34	1946	107	69	-	-	-	69	-	-	20,624	
35	1947	106	153	-	-	-	153	-	-	20,777	
36	1948	105	160	-	-	-	160	-	-	20,937	
37	1949	104	49	-	-	-	49	-	-	20,986	
38	1950	103	93	-	-	-	93	-	-	21,079	
39	1951	102	-	-	-	-	-	-	-	21,079	
40	1952	101	409	-	-	-	409	-	-	21,488	
41	1953	100	-	-	-	-	-	-	-	21,488	
42	1954	99	4,276	-	-	-	4,276	-	-	25,764	
43	1955	98	2,676	-	-	-	2,676	-	-	28,440	
44	1956	97	-	-	-	-	-	-	-	28,440	
45	1957	96	193	-	-	-	193	-	-	28,633	
46	1958	95	-	-	-	-	-	-	-	28,633	
47	1959	94	311	-	-	-	311	-	-	28,944	
48	1960	93	5,213	-	-	-	5,213	-	-	34,157	
49	1961	92	-	-	-	-	-	-	-	34,157	
50	1962	91	744	-	-	-	744	-	-	34,901	
51	1963	90	873	-	-	(591)	873	-	-	35,774	
52	1964	89	271	-	-	-	271	-	-	36,045	
53	1965	88	845	-	-	-	845	-	-	36,890	
54	1966	87	7,279	-	-	-	7,279	-	-	44,169	
55	1967	86	60	-	-	-	60	-	-	44,229	
56	1968	85	160	-	-	-	160	-	-	44,389	
57	1969	84	44	-	-	-	44	-	-	44,433	
58	1970	83	-	-	-	-	-	-	-	44,433	
59	1971	82	-	-	-	-	-	-	-	44,433	
60	1972	81	990	-	-	-	990	-	-	45,423	
61	1973	80	4,585	-	-	-	4,585	-	-	50,008	
62	1974	79	199	-	-	-	199	-	-	50,207	
63	1975	78	6,669	-	-	-	6,669	-	-	56,876	
64	1976	77	3,253	-	-	-	3,253	-	-	60,129	
65	1977	76	902	-	-	-	902	-	-	61,031	
66	1978	75	570	-	-	-	570	-	-	61,601	
67	1979	74	-	-	-	-	-	-	-	61,601	
68	1980	73	-	-	-	-	-	-	-	61,601	
69	1981	72	6,661	-	-	-	6,661	-	-	68,262	
70	1982	71	85	-	-	-	85	-	-	68,347	
71	1983	70	-	-	-	-	-	-	-	68,347	
72	1984	69	922	-	-	-	922	-	-	69,269	
73	1985	68	9,742	-	-	-	9,742	-	-	79,011	
74	1986	67	15,650	-	-	(3,422)	15,650	-	-	94,661	
75	1987	66	31,251	-	-	-	31,251	-	-	125,912	
76	1988	65	6,156	-	-	-	6,156	-	-	132,068	
77	1989	64	6,433	-	-	(4,164)	6,433	-	-	138,501	
78	1990	63	6,068	-	-	-	6,068	-	-	144,569	
79	1991	62	17,280	-	-	-	17,280	-	-	161,849	
80	1992	61	8,291	-	-	-	8,291	-	-	170,140	
81	1993	60	17,109	-	-	-	17,109	-	-	187,249	
82	1994	59	12,311	-	-	-	12,311	-	-	199,560	
83	1995	58	-	-	-	-	-	-	-	199,560	
84	1996	57	2,378	-	-	-	2,378	-	-	201,938	
85	1997	56	18,598	-	-	-	18,598	-	-	220,536	
86	1998	55	11,501	-	-	-	11,501	-	-	232,037	
87	1999	54	-	12,489	-	(10,450)	12,489	-	-	244,526	
88	2000	53	-	37,313	-	-	37,313	-	-	281,839	
89	2001	52	-	41,130	-	-	41,130	-	-	322,969	
90	2002	51	-	641	-	-	641	-	-	323,610	
91	2003	50	-	1,468	-	-	1,468	-	-	325,078	
92	2004	49	-	23,777	-	(23,777)	23,777	-	-	348,855	
93	2005	48	-	17,792	-	-	17,792	-	-	366,647	
94	2006	47	-	-	-	-	-	-	-	366,647	
95	2007	46	-	-	-	-	-	-	-	366,647	
96	2008	45	-	-	(7,586)	-	-	(7,586)	-	359,061	
97	2009	44	-	13,233	-	-	13,233	-	-	372,294	
98	2010	43	-	33,981	-	-	33,981	-	-	406,276	
99	2011	42	-	5,946	-	-	5,946	-	-	412,222	

The Empire District Electric Company
Unit Property Depreciation Rate Analysis
Unit Property: Hydraulic Production, Ozark Beach Hydro Plant

Gross Salvage 5%
Cost of Removal 10%
Net Salvage -5%
Install Date 1931
Retirement Date 2053
Service Life, Yrs 122

Historical and Forecast Plant Additions & Balances
Accou 335 Miscellaneous Power Plant Equipment

Line	Vintage Year	Vintage Age	Reported Per Books			Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*		
			Transaction Year				Vintage Year Retirements	Additions			Retirements	
			Balance	Additions	Retirements							
100	2012	41	-	40,584	-	-	40,584	-	-	452,806		
101	2013	40	-	1,500	-	16,609	18,109	-	-	470,915		
102	2014	39	-	-	(34,818)	16,564	16,564	(34,818)	-	452,661		
103	Total		\$ 232,037	\$ 229,855	\$ (42,404)	\$ (42,404)	\$ 33,173	\$ 495,065	\$ (42,404)	\$ -	\$ 10,036,740	
104	Major Additions/Retirements											
105												
106												
107	Routine Activity		\$ 263,028	\$ (42,404)								
108	Historical Interim Activity		2.62%	-0.42%								
109	Forecast Interim Activity		0.00%	-0.42%								
						<u>Major Additions**</u>						
110	2015	38					-	(1,912)		450,748		
111	2016	37						(1,904)		448,844		
112	2017	36						(1,896)		446,947		
113	2018	35						(1,888)		445,059		
114	2019	34						(1,880)		443,179		
115	2020	33						(1,872)		441,306		
116	2021	32						(1,864)		439,442		
117	2022	31						(1,857)		437,585		
118	2023	30						(1,849)		435,736		
119	2024	29						(1,841)		433,895		
120	2025	28						(1,833)		432,062		
121	2026	27						(1,825)		430,237		
122	2027	26						(1,818)		428,419		
123	2028	25						(1,810)		426,609		
124	2029	24						(1,802)		424,807		
125	2030	23						(1,795)		423,012		
126	2031	22						(1,787)		421,225		
127	2032	21						(1,780)		419,445		
128	2033	20						(1,772)		417,673		
129	2034	19						(1,765)		415,908		
130	2035	18						(1,757)		414,151		
131	2036	17						(1,750)		412,401		
132	2037	16						(1,742)		410,659		
133	2038	15						(1,735)		408,924		
134	2039	14						(1,728)		407,196		
135	2040	13						(1,720)		405,476		
136	2041	12						(1,713)		403,763		
137	2042	11						(1,706)		402,057		
138	2043	10						(1,699)		400,358		
139	2044	9						(1,691)		398,667		
140	2045	8						(1,684)		396,983		
141	2046	7						(1,677)		395,305		
142	2047	6						(1,670)		393,635		
143	2048	5						(1,663)		391,972		
144	2049	4						(1,656)		390,316		
145	2050	3						(1,649)		388,667		
146	2051	2						(1,642)		387,025		
147	2052	1						(1,635)		385,390		
148	2053	0							(385,390)	-		
										\$ 495,065	\$ (109,675)	\$ 25,891,825

* Through vintage year 1999 the balances are 1999 remaining plant balances.
** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	495,065
Forecast Additions	-
Total Additions	495,065
Gross Salvage Value	19,269
Less Cost of Removal	38,539
Net Salvage Value	(19,269)
Total to be Recovered	514,334
Forecast Plant Balances	25,891,825

Whole Life Accrual Rate	1.99%
Cost of Removal Accrual Rate	0.15%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.84%
Depreciable Service Life, years	50.3

Remaining Life Depreciation Rate Calculation

Account Balance - 12/31/14	452,661
Forecast Additions	-
Gross Salvage Value	19,269
Less Cost of Removal	38,539
Net Salvage Value	(19,269)

Depreciation Reserve Balance 12/31/14	(207,899)	Garren Proposed
Forecast Total Remaining Life Balance	264,031	Annual Accrual
Forecast Plant Balances	15,855,085	6,948
Remaining Life Accrual Rate	1.67%	1.53%

Summary by Plant
 The Empire District Electric Company
Plum Point

Account	Description	Direct Investment 2014\$	Depreciation Rate
311	Structure & Improvements	20,665,934	2.18%
312	Boiler Plant Equipment	53,031,016	2.17%
312T	Train	2,729,681	6.67%
314	Turbo Generator Equipment	16,956,702	2.18%
315	Accessory Electric Equipment	5,248,915	2.12%
316	Misc Power Equipment	2,968,554	2.07%
	Total	101,600,802	2.29%

The Empire District Electric Company	Gross Salvage	5%
Unit Property Depreciation Rate Analysis	Cost of Removal	10%
	Net Salvage	-5%
Unit Property: Steam Production, Plum Point	Install Date	2010
	Retirement Date	2060
	Service Life, Yrs	50

Historical and Forecast Plant Additions & Balances
Account: 311 Structures & Improvements

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	2010	50	-	19,851,439	-	-	-	19,851,439	-	-	19,851,439
2	2011	49	-	806,853	-	-	-	806,853	-	-	20,658,292
3	2012	48	-	7,544	-	-	98	7,642	-	-	20,665,934
4	2013	47	-	-	-	-	-	-	-	-	20,665,934
5	2014	46	-	-	-	-	-	-	-	-	20,665,934
6	Total		\$ -	\$ 20,665,836	\$ -	\$ -	\$ 98	\$ 20,665,934	\$ -	\$ -	\$ 102,507,534
7	Major Additions/Retirements										
8	2010		\$ 19,851,439								
9											
10											
11											
12	Routine Activity		\$ 814,495	\$ -							
13	Historical Interim Activity		0.79%	0.00%							
14	Forecast Interim Activity		0.00%	0.00%							
							<u>Major Additions**</u>				
15	2015	45						-	-		20,665,934
16	2016	44						-	-		20,665,934
17	2017	43						-	-		20,665,934
18	2018	42						-	-		20,665,934
19	2019	41						-	-		20,665,934
20	2020	40						-	-		20,665,934
21	2021	39						-	-		20,665,934
22	2022	38						-	-		20,665,934
23	2023	37						-	-		20,665,934
24	2024	36						-	-		20,665,934
25	2025	35						-	-		20,665,934
26	2026	34						-	-		20,665,934
27	2027	33						-	-		20,665,934
28	2028	32						-	-		20,665,934
29	2029	31						-	-		20,665,934
30	2030	30						-	-		20,665,934
31	2031	29						-	-		20,665,934
32	2032	28						-	-		20,665,934
33	2033	27						-	-		20,665,934
34	2034	26						-	-		20,665,934
35	2035	25						-	-		20,665,934
36	2036	24						-	-		20,665,934
37	2037	23						-	-		20,665,934
38	2038	22						-	-		20,665,934
39	2039	21						-	-		20,665,934
40	2040	20						-	-		20,665,934
41	2041	19						-	-		20,665,934
42	2042	18						-	-		20,665,934
43	2043	17						-	-		20,665,934
44	2044	16						-	-		20,665,934
45	2045	15						-	-		20,665,934
46	2046	14						-	-		20,665,934
47	2047	13						-	-		20,665,934
48	2048	12						-	-		20,665,934
49	2049	11						-	-		20,665,934
50	2050	10						-	-		20,665,934
51	2051	9						-	-		20,665,934
52	2052	8						-	-		20,665,934
53	2053	7						-	-		20,665,934
54	2054	6						-	-		20,665,934
55	2055	5						-	-		20,665,934
56	2056	4						-	-		20,665,934
57	2057	3						-	-		20,665,934
58	2058	2						-	-		20,665,934
59	2059	1						-	-		20,665,934
60	2060	0								(20,665,934)	-
			\$ -	\$ 20,665,934	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,032,474,579

** From 2015 capital budget

**The Empire District Electric Company
Unit Property Depreciation Rate Analysis**

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	2010
Retirement Date	2060
Service Life, Yrs	50

Unit Property: Steam Production, Plum Point

**Historical and Forecast Plant Additions & Balances
Account: 312 Boiler Plant Equipment**

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance	Additions	Retirements		
			Balance	Additions	Retirements		Additions				
1	2010	50	-	52,712,923	-	(342,627)	(12)	52,712,911	-	-	52,712,911
2	2011	49	-	70,618	-	-	176	70,794	-	-	52,783,705
3	2012	48	-	25,730	-	-	(101)	25,629	-	-	52,809,334
4	2013	47	-	128,201	-	-	-	128,201	-	-	52,937,535
5	2014	46	-	-	(342,627)	-	436,108	436,108	(342,627)	-	53,031,016
6	Total		\$ -	\$ 52,937,472	\$ (342,627)	\$ (342,627)	\$ 436,171	\$ 53,373,643	\$ (342,627)	\$ -	\$ 264,274,502
7	Major Additions/Retirements										
8	2010		\$	52,712,923							
9											
10											
11											
12	Routine Activity		\$	660,720	\$	(342,627)					
13	Historical Interim Activity			0.25%		-0.13%					
14	Forecast Interim Activity			0.00%		0.00%					
							Major Additions**				
15	2015	45						-	-		53,031,016
16	2016	44						-	-		53,031,016
17	2017	43						-	-		53,031,016
18	2018	42						-	-		53,031,016
19	2019	41						-	-		53,031,016
20	2020	40						-	-		53,031,016
21	2021	39						-	-		53,031,016
22	2022	38						-	-		53,031,016
23	2023	37						-	-		53,031,016
24	2024	36						-	-		53,031,016
25	2025	35						-	-		53,031,016
26	2026	34						-	-		53,031,016
27	2027	33						-	-		53,031,016
28	2028	32						-	-		53,031,016
29	2029	31						-	-		53,031,016
30	2030	30						-	-		53,031,016
31	2031	29						-	-		53,031,016
32	2032	28						-	-		53,031,016
33	2033	27						-	-		53,031,016
34	2034	26						-	-		53,031,016
35	2035	25						-	-		53,031,016
36	2036	24						-	-		53,031,016
37	2037	23						-	-		53,031,016
38	2038	22						-	-		53,031,016
39	2039	21						-	-		53,031,016
40	2040	20						-	-		53,031,016
41	2041	19						-	-		53,031,016
42	2042	18						-	-		53,031,016
43	2043	17						-	-		53,031,016
44	2044	16						-	-		53,031,016
45	2045	15						-	-		53,031,016
46	2046	14						-	-		53,031,016
47	2047	13						-	-		53,031,016
48	2048	12						-	-		53,031,016
49	2049	11						-	-		53,031,016
50	2050	10						-	-		53,031,016
51	2051	9						-	-		53,031,016
52	2052	8						-	-		53,031,016
53	2053	7						-	-		53,031,016
54	2054	6						-	-		53,031,016
55	2055	5						-	-		53,031,016
56	2056	4						-	-		53,031,016
57	2057	3						-	-		53,031,016
58	2058	2						-	-		53,031,016
59	2059	1						-	-		53,031,016
60	2060	0						-	-	(53,031,016)	-
			\$	-	\$	53,373,643	\$	(342,627)	\$		\$ 2,650,670,227

** From 2015 capital budget

Whole Life Depreciation Rate Calculation	
Historical Additions	53,373,643
Forecast Additions	-

The Empire District Electric Company
Unit Property Depreciation Rate Analysis

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	2010
Retirement Date	2060
Service Life, Yrs	50

Unit Property: Steam Production, Plum Point

Historical and Forecast Plant Additions & Balances
Account: 314 Turbogenerator Equipment

Line	[A]	[B]	[C]			[D]	[E]	[F]	[G]	[H]		[I]	[J]	[K]
	Vintage Year	Vintage Age	Reported Per Books			Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*				
			Balance	Additions	Retirements		Vintage Year Retirements	Advances			Additions	Retirements		
1	2010	50	-	16,963,162	-	(4,568)	-	16,963,162	-	-	-	-	16,963,162	
2	2011	49	-	-	-	-	-	-	-	-	-	-	16,963,162	
3	2012	48	-	-	-	-	98	98	-	-	-	-	16,963,260	
4	2013	47	-	-	-	-	-	-	-	-	-	-	16,963,260	
5	2014	46	-	3,983	(4,568)	-	(5,972)	(1,989)	(4,568)	-	-	-	16,956,702	
6	Total		\$ -	\$ 16,967,144	\$ (4,568)	\$ (4,568)	\$ (5,873)	\$ 16,961,271	\$ (4,568)	\$ -	\$ -	\$ -	\$ 84,809,545	
7	Major Additions/Retirements													
8	2010			\$ 16,963,162										
9	2014			\$ (5,972)	\$ (4,568)									
10														
11														
12	Routine Activity			\$ 4,081	\$ -									
13	Historical Interim Activity			0.00%	0.00%									
14	Forecast Interim Activity			0.00%	0.00%									
	<u>Major Additions**</u>													
15	2015	45											16,956,702	
16	2016	44											16,956,702	
17	2017	43											16,956,702	
18	2018	42											16,956,702	
19	2019	41											16,956,702	
20	2020	40											16,956,702	
21	2021	39											16,956,702	
22	2022	38											16,956,702	
23	2023	37											16,956,702	
24	2024	36											16,956,702	
25	2025	35											16,956,702	
26	2026	34											16,956,702	
27	2027	33											16,956,702	
28	2028	32											16,956,702	
29	2029	31											16,956,702	
30	2030	30											16,956,702	
31	2031	29											16,956,702	
32	2032	28											16,956,702	
33	2033	27											16,956,702	
34	2034	26											16,956,702	
35	2035	25											16,956,702	
36	2036	24											16,956,702	
37	2037	23											16,956,702	
38	2038	22											16,956,702	
39	2039	21											16,956,702	
40	2040	20											16,956,702	
41	2041	19											16,956,702	
42	2042	18											16,956,702	
43	2043	17											16,956,702	
44	2044	16											16,956,702	
45	2045	15											16,956,702	
46	2046	14											16,956,702	
47	2047	13											16,956,702	
48	2048	12											16,956,702	
49	2049	11											16,956,702	
50	2050	10											16,956,702	
51	2051	9											16,956,702	
52	2052	8											16,956,702	
53	2053	7											16,956,702	
54	2054	6											16,956,702	
55	2055	5											16,956,702	
56	2056	4											16,956,702	
57	2057	3											16,956,702	
58	2058	2											16,956,702	
59	2059	1											16,956,702	
60	2060	0										(16,956,702)	-	
								\$ -	\$ 16,961,271	\$ (4,568)			\$ 847,861,147	

** From 2015 capital budget

The Empire District Electric Company	Gross Salvage	5%
Unit Property Depreciation Rate Analysis	Cost of Removal	10%
	Net Salvage	-5%
Unit Property: Steam Production, Plum Point	Install Date	2010
	Retirement Date	2060
	Service Life, Yrs	50

Historical and Forecast Plant Additions & Balances
Account: 314 Turbogenerator Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]		
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*		
			Transaction Year		Advance		Additions	Retirements					
			Balance	Additions	Retirements	Retirements			Additions	Retirements			
Whole Life Depreciation Rate Calculation													
											Historical Additions	16,961,271	
											Forecast Additions	-	
											Total Additions	16,961,271	
											Gross Salvage Value	847,835	
											Less Cost of Removal	1,695,670	
											Net Salvage Value	(847,835)	
											Total to be Recovered	17,809,106	
											Forecast Plant Balances	847,861,147	
											Whole Life Accrual Rate	2.10%	
											Cost of Removal Accrual Rate	0.20%	
											Whole Life Accrual Rate (Excluding Cost of Removal)	1.90%	
											Depreciable Service Life, years	47.6	
Remaining Life Depreciation Rate Calculation													
											Account Balance 12/31/14	16,956,702	
											Forecast Additions	-	
											Gross Salvage Value	847,835	
											Less Cost of Removal	1,695,670	
											Net Salvage Value	(847,835)	
											Depreciation Reserve Balance 12/31/14	(1,159,784)	
											Forecast Total Remaining Life Balance	16,644,753	369,883
											Forecast Plant Balances	763,051,602	
											Remaining Life Accrual Rate	2.18%	2.18%

The Empire District Electric Company
Unit Property Depreciation Rate Analysis

Gross Salvage 5%
Cost of Removal 10%
Net Salvage -5%

Unit Property: Steam Production, Plum Point
Install Date 2010
Retirement Date 2060
Service Life, Yrs 50

Historical and Forecast Plant Additions & Balances
Account: 315 Accessory Electric Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	2010	50	-	5,254,788	-	-	-	5,254,788	-	-	5,254,788
2	2011	49	-	-	-	-	-	-	-	-	5,254,788
3	2012	48	-	-	-	-	98	98	-	-	5,254,886
4	2013	47	-	-	-	-	-	-	-	-	5,254,886
5	2014	46	-	-	-	-	(5,972)	(5,972)	-	-	5,248,915
6	Total		\$ -	\$ 5,254,788	\$ -	\$ -	\$ (5,873)	\$ 5,248,915	\$ -	\$ -	\$ 26,268,263
7	Major Additions/Retirements										
8	2010		\$ 5,254,788								
9											
10											
11											
12	Routine Activity										
13	Historical Interim Activity		\$ (5,873)	\$ -							
14	Forecast Interim Activity		0.00%	0.00%							
							<u>Major Additions**</u>				
15	2015	45						-	-		5,248,915
16	2016	44						-	-		5,248,915
17	2017	43						-	-		5,248,915
18	2018	42						-	-		5,248,915
19	2019	41						-	-		5,248,915
20	2020	40						-	-		5,248,915
21	2021	39						-	-		5,248,915
22	2022	38						-	-		5,248,915
23	2023	37						-	-		5,248,915
24	2024	36						-	-		5,248,915
25	2025	35						-	-		5,248,915
26	2026	34						-	-		5,248,915
27	2027	33						-	-		5,248,915
28	2028	32						-	-		5,248,915
29	2029	31						-	-		5,248,915
30	2030	30						-	-		5,248,915
31	2031	29						-	-		5,248,915
32	2032	28						-	-		5,248,915
33	2033	27						-	-		5,248,915
34	2034	26						-	-		5,248,915
35	2035	25						-	-		5,248,915
36	2036	24						-	-		5,248,915
37	2037	23						-	-		5,248,915
38	2038	22						-	-		5,248,915
39	2039	21						-	-		5,248,915
40	2040	20						-	-		5,248,915
41	2041	19						-	-		5,248,915
42	2042	18						-	-		5,248,915
43	2043	17						-	-		5,248,915
44	2044	16						-	-		5,248,915
45	2045	15						-	-		5,248,915
46	2046	14						-	-		5,248,915
47	2047	13						-	-		5,248,915
48	2048	12						-	-		5,248,915
49	2049	11						-	-		5,248,915
50	2050	10						-	-		5,248,915
51	2051	9						-	-		5,248,915
52	2052	8						-	-		5,248,915
53	2053	7						-	-		5,248,915
54	2054	6						-	-		5,248,915
55	2055	5						-	-		5,248,915
56	2056	4						-	-		5,248,915
57	2057	3						-	-		5,248,915
58	2058	2						-	-		5,248,915
59	2059	1						-	-		5,248,915
60	2060	0								(5,248,915)	-
								\$ -	\$ 5,248,915	\$ -	\$ 262,469,416

** From 2015 capital budget

The Empire District Electric Company	Gross Salvage	5%
Unit Property Depreciation Rate Analysis	Cost of Removal	10%
	Net Salvage	-5%
Unit Property: Steam Production, Plum Point	Install Date	2010
	Retirement Date	2060
	Service Life, Yrs	50

Historical and Forecast Plant Additions & Balances
Account: 316 Miscellaneous Plant Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	2010	50	-	2,967,056	-	-	-	2,967,056	-	-	2,967,056
2	2011	49	-	-	-	-	-	-	-	-	2,967,056
3	2012	48	-	1,400	-	-	98	1,498	-	-	2,968,554
4	2013	47	-	-	-	-	-	-	-	-	2,968,554
5	2014	46	-	-	-	-	-	-	-	-	2,968,554
6	Total		\$ -	\$ 2,968,456	\$ -	\$ -	\$ 98	\$ 2,968,554	\$ -	\$ -	\$ 14,839,774
7	Major Additions/Retirements										
8	2010		\$ -	\$ 2,967,056							
9											
10											
11											
12	Routine Activity										
			\$ -	\$ 1,498	\$ -						
13	Historical Interim Activity										
				0.01%	0.00%						
14	Forecast Interim Activity										
				0.00%	0.00%						
							Major Additions**				
15	2015	45						-	-		2,968,554
16	2016	44						-	-		2,968,554
17	2017	43						-	-		2,968,554
18	2018	42						-	-		2,968,554
19	2019	41						-	-		2,968,554
20	2020	40						-	-		2,968,554
21	2021	39						-	-		2,968,554
22	2022	38						-	-		2,968,554
23	2023	37						-	-		2,968,554
24	2024	36						-	-		2,968,554
25	2025	35						-	-		2,968,554
26	2026	34						-	-		2,968,554
27	2027	33						-	-		2,968,554
28	2028	32						-	-		2,968,554
29	2029	31						-	-		2,968,554
30	2030	30						-	-		2,968,554
31	2031	29						-	-		2,968,554
32	2032	28						-	-		2,968,554
33	2033	27						-	-		2,968,554
34	2034	26						-	-		2,968,554
35	2035	25						-	-		2,968,554
36	2036	24						-	-		2,968,554
37	2037	23						-	-		2,968,554
38	2038	22						-	-		2,968,554
39	2039	21						-	-		2,968,554
40	2040	20						-	-		2,968,554
41	2041	19						-	-		2,968,554
42	2042	18						-	-		2,968,554
43	2043	17						-	-		2,968,554
44	2044	16						-	-		2,968,554
45	2045	15						-	-		2,968,554
46	2046	14						-	-		2,968,554
47	2047	13						-	-		2,968,554
48	2048	12						-	-		2,968,554
49	2049	11						-	-		2,968,554
50	2050	10						-	-		2,968,554
51	2051	9						-	-		2,968,554
52	2052	8						-	-		2,968,554
53	2053	7						-	-		2,968,554
54	2054	6						-	-		2,968,554
55	2055	5						-	-		2,968,554
56	2056	4						-	-		2,968,554
57	2057	3						-	-		2,968,554
58	2058	2						-	-		2,968,554
59	2059	1						-	-		2,968,554
60	2060	0								(2,968,554)	-
			\$ -	\$ 2,968,554	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 148,424,704

** From 2015 capital budget

Summary by Plant
 The Empire District Electric Company
Riverton CTs - Units 9, 10, 11

Account	Description	Direct Investment 2014\$	Depreciation Rate
341	Structures & Improvements	1,256,593	4.16%
342	Fuel Holders, Producers & Accessories	474,674	2.76%
343	Prime Movers	7,721,713	1.33%
344	Generators	2,020,924	2.06%
345	Accessory Electric Equipment	1,651,026	2.70%
346	Misc Power Equipment	215,291	3.70%
Total		13,340,220	1.97% remaining life weighted average rate

The Empire District Electric Company

Gross Salvage	8%	
Cost of Removal	10%	
Net Salvage	-2%	
Install Date	1964 Unit 9	1988 Units 10, 11
Retirement Date	2015 Unit 9	2033 Units 10, 11
Service Life, Yrs	51 Unit 9	45 Units 10, 11

Unit Property Depreciation Rate Analysis

Unit Property: Other Production, Riverton CTs - Units 9, 10, 11

Historical and Forecast Plant Additions & Balances
Account: 341 Structures & Improvements

Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year					Retirements	Additions			Retirements
			Balance	Additions	Retirements							
1	1964	69	45,386	-	-	-	-	45,386	-	-	45,386	
2	1965	68	-	-	-	-	-	-	-	-	45,386	
3	1966	67	-	-	-	-	-	-	-	-	45,386	
4	1967	66	-	-	-	-	-	-	-	-	45,386	
5	1968	65	-	-	-	-	-	-	-	-	45,386	
6	1969	64	-	-	-	-	-	-	-	-	45,386	
7	1970	63	-	-	-	-	-	-	-	-	45,386	
8	1971	62	-	-	-	-	-	-	-	-	45,386	
9	1972	61	-	-	-	-	-	-	-	-	45,386	
10	1973	60	-	-	-	-	-	-	-	-	45,386	
11	1974	59	-	-	-	-	-	-	-	-	45,386	
12	1975	58	-	-	-	-	-	-	-	-	45,386	
13	1976	57	-	-	-	-	-	-	-	-	45,386	
14	1977	56	-	-	-	-	-	-	-	-	45,386	
15	1978	55	-	-	-	-	-	-	-	-	45,386	
16	1979	54	-	-	-	-	-	-	-	-	45,386	
17	1980	53	-	-	-	-	-	-	-	-	45,386	
18	1981	52	-	-	-	-	-	-	-	-	45,386	
19	1982	51	-	-	-	-	-	-	-	-	45,386	
20	1983	50	-	-	-	-	-	-	-	-	45,386	
21	1984	49	-	-	-	-	-	-	-	-	45,386	
22	1985	48	-	-	-	-	-	-	-	-	45,386	
23	1986	47	-	-	-	-	-	-	-	-	45,386	
24	1987	46	-	-	-	-	-	-	-	-	45,386	
25	1988	45	513,310	-	-	-	-	513,310	-	-	558,696	
26	1989	44	-	-	-	-	-	-	-	-	558,696	
27	1990	43	11,784	-	-	-	-	11,784	-	-	570,480	
28	1991	42	-	-	-	-	-	-	-	-	570,480	
29	1992	41	-	-	-	-	-	-	-	-	570,480	
30	1993	40	-	-	-	-	-	-	-	-	570,480	
31	1994	39	-	-	-	-	-	-	-	-	570,480	
32	1995	38	12,726	-	-	-	-	12,726	-	-	583,206	
33	1996	37	-	-	-	-	-	-	-	-	583,206	
34	1997	36	-	-	-	-	-	-	-	-	583,206	
35	1998	35	-	-	-	-	-	-	-	-	583,206	
36	1999	34	-	-	-	-	-	-	-	-	583,206	
37	2000	33	-	-	-	-	-	-	-	-	583,206	
38	2001	32	-	-	-	-	-	-	-	-	583,206	
39	2002	31	-	-	-	-	-	-	-	-	583,206	
40	2003	30	-	-	-	-	-	-	-	-	583,206	
41	2004	29	-	-	-	-	-	-	-	-	583,206	
42	2005	28	-	-	-	-	-	-	-	-	583,206	
43	2006	27	-	-	-	-	-	-	-	-	583,206	
44	2007	26	-	-	-	-	-	-	-	-	583,206	
45	2008	25	-	-	-	-	-	-	-	162,004	745,210	
46	2009	24	-	-	-	-	-	-	-	-	745,210	
47	2010	23	-	-	-	-	-	-	-	-	745,210	
48	2011	22	-	-	-	-	-	-	-	-	745,210	
49	2012	21	-	-	-	-	-	-	-	-	745,210	
50	2013	20	-	-	-	-	464,761	464,761	-	-	1,209,971	
51	2014	19	-	-	-	-	46,621	46,621	-	-	1,256,593	
52	Total		\$ 583,206	\$ -	\$ -	\$ -	\$ 511,383	\$ 1,094,589	\$ -	\$ 162,004	\$ 18,833,348	

53 Major Additions/Retirements

54	2013		\$ 464,761	
55				
56	Routine Activity		\$ 46,621	\$ -
57	Historical Interim Activity		0.25%	0.00%
58	Forecast Interim Activity		0.00%	0.00%

			Major Additions**		Major Retirements		
59	2015	18	UNIT 9 RETIRES IN 2015	-	(58,113)	-	1,198,480
60	2016	17		-	-	-	1,198,480
61	2017	16		-	-	-	1,198,480
62	2018	15		-	-	-	1,198,480
63	2019	14		-	-	-	1,198,480
64	2020	13		-	-	-	1,198,480
65	2021	12		-	-	-	1,198,480
66	2022	11		-	-	-	1,198,480
67	2023	10		-	-	-	1,198,480
68	2024	9		-	-	-	1,198,480
69	2025	8		-	-	-	1,198,480
70	2026	7		-	-	-	1,198,480
71	2027	6		-	-	-	1,198,480

The Empire District Electric Company

Gross Salvage	8%	
Cost of Removal	10%	
Net Salvage	-2%	
Install Date	1964 Unit 9	1988 Units 10, 11
Retirement Date	2015 Unit 9	2033 Units 10, 11
Service Life, Yrs	51 Unit 9	45 Units 10, 11

Historical and Forecast Plant Additions & Balances

Account: 341 Structures & Improvements

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Retirements			Additions	Retirements		
			Balance	Additions		Retirements	Retirements			Additions	Retirements
72	2028	5						-	-		1,198,480
73	2029	4						-	-		1,198,480
74	2030	3						-	-		1,198,480
75	2031	2						-	-		1,198,480
76	2032	1						-	-		1,198,480
77	2033	0								(1,198,480)	-
							\$ -	\$ 1,094,589	\$ -		\$ 40,405,985

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	1,094,589
Forecast Additions	-
Total Additions	1,094,589
Gross Salvage Value	95,878
Less Cost of Removal	119,848
Net Salvage Value	(23,970)
Total to be Recovered	1,118,558

Forecast Plant Balances 40,405,985

Whole Life Accrual Rate 2.77%

Cost of Removal Accrual Rate 0.30%

Whole Life Accrual Rate (Excluding Cost of Removal) 2.47%

Depreciable Service Life, years 36.1

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	1,256,593
Forecast Additions	-
Gross Salvage Value	95,878
Less Cost of Removal	119,848
Net Salvage Value	(23,970)

Depreciation Reserve Balance 12/31/14 (339,512)

(Includes adjustment to remove Unit 9 reserve from remaining life calculation)

Forecast Total Remaining Life Balance 941,050

Forecast Plant Balances 21,572,637

Remaining Life Accrual Rate 4.36%

Garren Proposed

Annual Accrual

52,280.56

4.16%

The Empire District Electric Company

Gross Salvage	8%	
Cost of Removal	10%	
Net Salvage	-2%	
Install Date	1964 Unit 9	1988 Units 10, 11
Retirement Date	2015 Unit 9	2033 Units 10, 11
Service Life, Yrs	51 Unit 9	45 Units 10, 11

Historical and Forecast Plant Additions & Balances

Account: 342 Fuel Holders, Producers & Accessories

Line	Vintage Year	Vintage Age	Reported Per Books			Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Vintage Year Retirements		Additions	Retirements		
			Balance	Additions		Retirements			Additions	Retirements
1	1964	69	1,641	-	-	-	1,641	-	-	1,641
2	1965	68	-	-	-	-	-	-	-	1,641
3	1966	67	-	-	-	-	-	-	-	1,641
4	1967	66	-	-	-	-	-	-	-	1,641
5	1968	65	-	-	-	-	-	-	-	1,641
6	1969	64	-	-	-	-	-	-	-	1,641
7	1970	63	-	-	-	-	-	-	-	1,641
8	1971	62	-	-	-	-	-	-	-	1,641
9	1972	61	-	-	-	-	-	-	-	1,641
10	1973	60	-	-	-	-	-	-	-	1,641
11	1974	59	190	-	-	-	190	-	-	1,831
12	1975	58	-	-	-	-	-	-	-	1,831
13	1976	57	-	-	-	-	-	-	-	1,831
14	1977	56	-	-	-	-	-	-	-	1,831
15	1978	55	-	-	-	-	-	-	-	1,831
16	1979	54	-	-	-	-	-	-	-	1,831
17	1980	53	-	-	-	-	-	-	-	1,831
18	1981	52	-	-	-	-	-	-	-	1,831
19	1982	51	-	-	-	-	-	-	-	1,831
20	1983	50	-	-	-	-	-	-	-	1,831
21	1984	49	-	-	-	-	-	-	-	1,831
22	1985	48	-	-	-	-	-	-	-	1,831
23	1986	47	-	-	-	-	-	-	-	1,831
24	1987	46	-	-	-	-	-	-	-	1,831
25	1988	45	449,148	-	-	-	449,148	-	-	450,979
26	1989	44	-	-	-	-	-	-	-	450,979
27	1990	43	8,882	-	-	-	8,882	-	-	459,861
28	1991	42	-	-	-	-	-	-	-	459,861
29	1992	41	-	-	-	-	-	-	-	459,861
30	1993	40	891	-	-	-	891	-	-	460,752
31	1994	39	7,426	-	-	-	7,426	-	-	468,178
32	1995	38	-	-	-	-	-	-	-	468,178
33	1996	37	-	-	-	-	-	-	-	468,178
34	1997	36	-	-	-	-	-	-	-	468,178
35	1998	35	-	-	-	-	-	-	-	468,178
36	1999	34	-	-	-	-	-	-	-	468,178
37	2000	33	-	-	-	-	-	-	-	468,178
38	2001	32	-	-	-	-	-	-	-	468,178
39	2002	31	-	-	-	-	-	-	-	468,178
40	2003	30	-	-	-	-	-	-	-	468,178
41	2004	29	-	-	-	-	-	-	-	468,178
42	2005	28	-	-	-	-	-	-	-	468,178
43	2006	27	-	-	-	-	-	-	-	468,178
44	2007	26	-	-	-	-	-	-	-	468,178
45	2008	25	-	-	-	-	-	-	-	468,178
46	2009	24	-	-	-	-	-	-	-	468,178
47	2010	23	-	-	-	-	-	-	-	468,178
48	2011	22	-	-	-	-	-	-	-	468,178
49	2012	21	-	-	-	-	-	-	-	468,178
50	2013	20	-	-	-	6,496	6,496	-	-	474,674
51	2014	19	-	-	-	-	-	-	-	474,674
52	Total		\$ 468,178	\$ -	\$ -	\$ -	\$ 6,496	\$ 474,674	\$ -	\$ 12,629,068

53 Major Additions/Retirements

54				
55				
56	Routine Activity	\$ 6,496	\$ -	
57	Historical Interim Activity	0.05%	0.00%	
58	Forecast Interim Activity	0.00%	0.00%	

				<u>Major Additions**</u>		<u>Major Retirements</u>	
59	2015	18	UNIT 9 RETIRES IN 2015	-	-	(11,604)	463,070
60	2016	17		-	-		463,070
61	2017	16		-	-		463,070
62	2018	15		-	-		463,070
63	2019	14		-	-		463,070
64	2020	13		-	-		463,070
65	2021	12		-	-		463,070
66	2022	11		-	-		463,070
67	2023	10		-	-		463,070
68	2024	9		-	-		463,070
69	2025	8		-	-		463,070
70	2026	7		-	-		463,070
71	2027	6		-	-		463,070

The Empire District Electric Company

Gross Salvage	8%	
Cost of Removal	10%	
Net Salvage	-2%	
Install Date	1964 Unit 9	1988 Units 10, 11
Retirement Date	2015 Unit 9	2033 Units 10, 11
Service Life, Yrs	51 Unit 9	45 Units 10, 11

Unit Property Depreciation Rate Analysis

Unit Property: Other Production, Riverton CTs - Units 9, 10, 11

Historical and Forecast Plant Additions & Balances

Account: 342 Fuel Holders, Producers & Accessories

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Retirements			Additions	Retirements		
			Balance	Additions		Retirements	Retirements			Additions	Retirements
72	2028	5						-	-		463,070
73	2029	4						-	-		463,070
74	2030	3						-	-		463,070
75	2031	2						-	-		463,070
76	2032	1						-	-		463,070
77	2033	0								(463,070)	-
							\$ -	\$ 474,674	\$ -		\$ 20,964,328

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	474,674
Forecast Additions	-
Total Additions	474,674
Gross Salvage Value	37,046
Less Cost of Removal	46,307
Net Salvage Value	(9,261)
Total to be Recovered	483,936

Forecast Plant Balances 20,964,328

Whole Life Accrual Rate 2.31%

Cost of Removal Accrual Rate 0.22%

Whole Life Accrual Rate (Excluding Cost of Removal) 2.09%

Depreciable Service Life, years 43.3

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	474,674
Forecast Additions	-
Gross Salvage Value	37,046
Less Cost of Removal	46,307
Net Salvage Value	(9,261)

Depreciation Reserve Balance 12/31/14 (247,937)

(Includes adjustment to remove Unit 9 reserve from remaining life calculation)

Forecast Total Remaining Life Balance 235,998

Forecast Plant Balances 8,335,261

Remaining Life Accrual Rate 2.83%

Garren Proposed

Annual Accrual

13,111.01

2.76%

The Empire District Electric Company

Gross Salvage	10%	
Cost of Removal	5%	
Net Salvage	5%	
Install Date	1964 Unit 9	1988 Units 10, 11
Retirement Date	2015 Unit 9	2033 Units 10, 11
Service Life, Yrs	51 Unit 9	45 Units 10, 11

Unit Property Depreciation Rate Analysis

Unit Property: Other Production, Riverton CTs - Units 9, 10, 11

Historical and Forecast Plant Additions & Balances

Account: 343 Prime Movers

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance	Additions	Retirements		
			Balance	Additions	Retirements		Additions				
1	1964	69	661,755	-	-	(85,300)	-	661,755	-	-	661,755
2	1965	68	-	-	-	-	-	-	-	-	661,755
3	1966	67	-	-	-	-	-	-	-	-	661,755
4	1967	66	7,215	-	-	-	-	7,215	-	-	668,970
5	1968	65	-	-	-	-	-	-	-	-	668,970
6	1969	64	40,983	-	-	-	-	40,983	-	-	709,953
7	1970	63	-	-	-	-	-	-	-	-	709,953
8	1971	62	72,731	-	-	-	-	72,731	-	-	782,684
9	1972	61	-	-	-	-	-	-	-	-	782,684
10	1973	60	115,319	-	-	-	-	115,319	-	-	898,003
11	1974	59	38,131	-	-	-	-	38,131	-	-	936,134
12	1975	58	-	-	-	-	-	-	-	-	936,134
13	1976	57	2,454	-	-	-	-	2,454	-	-	938,588
14	1977	56	-	-	-	-	-	-	-	-	938,588
15	1978	55	-	-	-	-	-	-	-	-	938,588
16	1979	54	304,302	-	-	-	-	304,302	-	-	1,242,890
17	1980	53	-	-	-	-	-	-	-	-	1,242,890
18	1981	52	-	-	-	-	-	-	-	-	1,242,890
19	1982	51	-	-	-	-	-	-	-	-	1,242,890
20	1983	50	90,968	-	-	(10,988)	-	90,968	-	-	1,333,858
21	1984	49	-	-	-	-	-	-	-	-	1,333,858
22	1985	48	-	-	-	-	-	-	-	-	1,333,858
23	1986	47	-	-	-	-	-	-	-	-	1,333,858
24	1987	46	-	-	-	-	-	-	-	-	1,333,858
25	1988	45	3,785,653	-	-	(72,286)	-	3,785,653	-	-	5,119,511
26	1989	44	968,268	-	-	-	-	968,268	-	-	6,087,779
27	1990	43	24,597	-	-	-	-	24,597	-	-	6,112,376
28	1991	42	-	-	-	-	-	-	-	-	6,112,376
29	1992	41	128,552	-	-	-	-	128,552	-	-	6,240,928
30	1993	40	-	-	-	-	-	-	-	-	6,240,928
31	1994	39	10,260	-	-	-	-	10,260	-	-	6,251,188
32	1995	38	1,077,981	-	-	(887,079)	-	1,077,981	-	-	7,329,169
33	1996	37	33,474	-	-	-	-	33,474	-	-	7,362,643
34	1997	36	32,883	-	-	-	-	32,883	-	-	7,395,526
35	1998	35	521,983	-	-	-	-	521,983	-	-	7,917,509
36	1999	34	-	20,678	-	(10,751)	-	20,678	-	-	7,938,187
37	2000	33	-	-	(96,288)	-	-	-	(96,288)	-	7,841,899
38	2001	32	-	-	-	-	-	-	-	-	7,841,899
39	2002	31	-	-	-	-	-	-	-	-	7,841,899
40	2003	30	-	-	-	-	-	-	-	-	7,841,899
41	2004	29	-	12,495	-	-	-	12,495	-	-	7,854,394
42	2005	28	-	-	-	-	-	-	-	-	7,854,394
43	2006	27	-	-	(72,286)	-	-	-	(72,286)	-	7,782,108
44	2007	26	-	-	-	-	-	-	-	-	7,782,108
45	2008	25	-	-	-	-	-	-	-	-	7,782,108
46	2009	24	-	-	-	-	-	-	-	-	7,782,108
47	2010	23	-	-	-	-	-	-	-	-	7,782,108
48	2011	22	-	35,000	-	-	-	35,000	-	-	7,817,108
49	2012	21	-	798,871	(10,751)	-	-	798,871	(10,751)	-	8,605,228
50	2013	20	-	-	(887,079)	-	3,564	3,564	(887,079)	-	7,721,713
51	2014	19	-	-	-	-	-	-	-	-	7,721,713
52	Total		\$ 7,917,509	\$ 867,044	\$ (1,066,404)	\$ (1,066,404)	\$ 3,564	\$ 8,788,117	\$ (1,066,404)	\$ -	\$ 221,496,170

53 Major Additions/Retirements

54	2012	\$ 798,871	
55	2013		\$ (887,079)
56	Routine Activity	\$ 71,737	\$ (179,325)
57	Historical Interim Activity	0.03%	-0.08%
58	Forecast Interim Activity	0.00%	0.00%

Major Additions**

Major Retirements

59	2015	18	UNIT 9 RETIRES IN 2015	-	-	(2,147,807)	5,573,906
60	2016	17		-	-		5,573,906
61	2017	16		-	-		5,573,906
62	2018	15		-	-		5,573,906
63	2019	14		-	-		5,573,906
64	2020	13		-	-		5,573,906
65	2021	12		-	-		5,573,906
66	2022	11		-	-		5,573,906
67	2023	10		-	-		5,573,906
68	2024	9		-	-		5,573,906
69	2025	8		-	-		5,573,906
70	2026	7		-	-		5,573,906
71	2027	6		-	-		5,573,906

The Empire District Electric Company	Gross Salvage	10%	
	Cost of Removal	5%	
Unit Property Depreciation Rate Analysis	Net Salvage	5%	
Unit Property: Other Production, Riverton CTs - Units 9, 10, 11	Install Date	1964 Unit 9	1988 Units 10, 11
	Retirement Date	2015 Unit 9	2033 Units 10, 11
	Service Life, Yrs	51 Unit 9	45 Units 10, 11

Historical and Forecast Plant Additions & Balances

Account: 343 Prime Movers

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Retirements			Additions	Retirements		
			Balance	Additions		Retirements	Retirements			Additions	Retirements
72	2028	5						-	-		5,573,906
73	2029	4						-	-		5,573,906
74	2030	3						-	-		5,573,906
75	2031	2						-	-		5,573,906
76	2032	1						-	-		5,573,906
77	2033	0								(5,573,906)	-
								\$ -	\$ 8,788,117	\$ (1,066,404)	\$ 321,826,483

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	8,788,117
Forecast Additions	-
Total Additions	8,788,117
Gross Salvage Value	557,391
Less Cost of Removal	278,695
Net Salvage Value	278,695
Total to be Recovered	8,509,422

Forecast Plant Balances 321,826,483

Whole Life Accrual Rate 2.64%

Cost of Removal Accrual Rate 0.09%

Whole Life Accrual Rate (Excluding Cost of Removal) 2.56%

Depreciable Service Life, years 37.8

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	7,721,713
Forecast Additions	-
Gross Salvage Value	557,391
Less Cost of Removal	278,695
Net Salvage Value	278,695

Depreciation Reserve Balance 12/31/14 (5,590,330)

(Includes adjustment to remove Unit 9 reserve from remaining life calculation)

Forecast Total Remaining Life Balance 1,852,688

Forecast Plant Balances 100,330,313

Remaining Life Accrual Rate 1.85%

Garren Proposed

Annual Accrual

102,927.09

1.33%

The Empire District Electric Company

Gross Salvage	10%	
Cost of Removal	5%	
Net Salvage	5%	
Install Date	1964 Unit 9	1988 Units 10, 11
Retirement Date	2015 Unit 9	2033 Units 10, 11
Service Life, Yrs	51 Unit 9	45 Units 10, 11

Historical and Forecast Plant Additions & Balances

Account: 344 Generators

Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year					Retirements	Additions			Retirements
			Balance	Additions	Retirements							
1	1964	69	177,827	-	-	-	-	177,827	-	-	177,827	
2	1965	68	-	-	-	-	-	-	-	-	177,827	
3	1966	67	-	-	-	-	-	-	-	-	177,827	
4	1967	66	-	-	-	-	-	-	-	-	177,827	
5	1968	65	-	-	-	-	-	-	-	-	177,827	
6	1969	64	-	-	-	-	-	-	-	-	177,827	
7	1970	63	-	-	-	-	-	-	-	-	177,827	
8	1971	62	-	-	-	-	-	-	-	-	177,827	
9	1972	61	-	-	-	-	-	-	-	-	177,827	
10	1973	60	-	-	-	-	-	-	-	-	177,827	
11	1974	59	-	-	-	-	-	-	-	-	177,827	
12	1975	58	-	-	-	-	-	-	-	-	177,827	
13	1976	57	-	-	-	-	-	-	-	-	177,827	
14	1977	56	-	-	-	-	-	-	-	-	177,827	
15	1978	55	-	-	-	-	-	-	-	-	177,827	
16	1979	54	-	-	-	-	-	-	-	-	177,827	
17	1980	53	-	-	-	-	-	-	-	-	177,827	
18	1981	52	-	-	-	-	-	-	-	-	177,827	
19	1982	51	-	-	-	-	-	-	-	-	177,827	
20	1983	50	-	-	-	-	-	-	-	-	177,827	
21	1984	49	-	-	-	-	-	-	-	-	177,827	
22	1985	48	-	-	-	-	-	-	-	-	177,827	
23	1986	47	-	-	-	-	-	-	-	-	177,827	
24	1987	46	-	-	-	-	-	-	-	-	177,827	
25	1988	45	1,764,496	-	-	-	-	1,764,496	-	-	1,942,323	
26	1989	44	-	-	-	-	-	-	-	-	1,942,323	
27	1990	43	-	-	-	-	-	-	-	-	1,942,323	
28	1991	42	-	-	-	-	-	-	-	-	1,942,323	
29	1992	41	-	-	-	-	-	-	-	-	1,942,323	
30	1993	40	-	-	-	-	-	-	-	-	1,942,323	
31	1994	39	-	-	-	-	-	-	-	-	1,942,323	
32	1995	38	78,601	-	-	-	-	78,601	-	-	2,020,924	
33	1996	37	-	-	-	-	-	-	-	-	2,020,924	
34	1997	36	-	-	-	-	-	-	-	-	2,020,924	
35	1998	35	-	-	-	-	-	-	-	-	2,020,924	
36	1999	34	-	-	-	-	-	-	-	-	2,020,924	
37	2000	33	-	-	-	-	-	-	-	-	2,020,924	
38	2001	32	-	-	-	-	-	-	-	-	2,020,924	
39	2002	31	-	-	-	-	-	-	-	-	2,020,924	
40	2003	30	-	-	-	-	-	-	-	-	2,020,924	
41	2004	29	-	-	-	-	-	-	-	-	2,020,924	
42	2005	28	-	-	-	-	-	-	-	-	2,020,924	
43	2006	27	-	-	-	-	-	-	-	-	2,020,924	
44	2007	26	-	-	-	-	-	-	-	-	2,020,924	
45	2008	25	-	-	-	-	-	-	-	-	2,020,924	
46	2009	24	-	-	-	-	-	-	-	-	2,020,924	
47	2010	23	-	-	-	-	-	-	-	-	2,020,924	
48	2011	22	-	-	-	-	-	-	-	-	2,020,924	
49	2012	21	-	-	-	-	-	-	-	-	2,020,924	
50	2013	20	-	-	-	-	-	-	-	-	2,020,924	
51	2014	19	-	-	-	-	-	-	-	-	2,020,924	
52	Total		\$ 2,020,924	\$ -	\$ -	\$ -	\$ -	\$ 2,020,924	\$ -	\$ -	\$ 58,282,589	

53 Major Additions/Retirements

54		\$ -	
55			
56	Routine Activity	\$ -	\$ -
57	Historical Interim Activity	0.00%	0.00%
58	Forecast Interim Activity	0.00%	0.00%

Major Additions**

Major Retirements

59	2015	18	UNIT 9 RETIRES IN 2015	-	-	(256,429)	1,764,495
60	2016	17		-	-		1,764,495
61	2017	16		-	-		1,764,495
62	2018	15		-	-		1,764,495
63	2019	14		-	-		1,764,495
64	2020	13		-	-		1,764,495
65	2021	12		-	-		1,764,495
66	2022	11		-	-		1,764,495
67	2023	10		-	-		1,764,495
68	2024	9		-	-		1,764,495
69	2025	8		-	-		1,764,495
70	2026	7		-	-		1,764,495
71	2027	6		-	-		1,764,495

The Empire District Electric Company

Gross Salvage	10%		
Cost of Removal	5%		
Net Salvage	5%		
Install Date	1964 Unit 9	1988 Units 10, 11	
Retirement Date	2015 Unit 9	2033 Units 10, 11	
Service Life, Yrs	51 Unit 9	45 Units 10, 11	

Unit Property Depreciation Rate Analysis

Unit Property: Other Production, Riverton CTs - Units 9, 10, 11

Historical and Forecast Plant Additions & Balances

Account: 344 Generators

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Retirements			Additions	Retirements		
			Balance	Additions		Retirements	Retirements			Additions	Retirements
72	2028	5						-	-		1,764,495
73	2029	4						-	-		1,764,495
74	2030	3						-	-		1,764,495
75	2031	2						-	-		1,764,495
76	2032	1						-	-		1,764,495
77	2033	0								(1,764,495)	-
							\$ -	\$ 2,020,924	\$ -		\$ 90,043,491

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	2,020,924
Forecast Additions	-
Total Additions	2,020,924
Gross Salvage Value	176,449
Less Cost of Removal	88,225
Net Salvage Value	88,225
Total to be Recovered	1,932,699

Forecast Plant Balances 90,043,491

Whole Life Accrual Rate 2.15%

Cost of Removal Accrual Rate 0.10%

Whole Life Accrual Rate (Excluding Cost of Removal) 2.05%

Depreciable Service Life, years 46.6

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	2,020,924
Forecast Additions	-
Gross Salvage Value	176,449
Less Cost of Removal	88,225
Net Salvage Value	88,225

Depreciation Reserve Balance 12/31/14 (1,181,750)

(Includes adjustment to remove Unit 9 reserve from remaining life calculation)

Forecast Total Remaining Life Balance 750,949

Forecast Plant Balances 31,760,902

Remaining Life Accrual Rate 2.36%

Garren Proposed

Annual Accrual

41,719.41

2.06%

The Empire District Electric Company

Gross Salvage	8%	
Cost of Removal	10%	
Net Salvage	-2%	
Install Date	1964 Unit 9	1988 Units 10, 11
Retirement Date	2015 Unit 9	2033 Units 10, 11
Service Life, Yrs	51 Unit 9	45 Units 10, 11

Unit Property Depreciation Rate Analysis

Unit Property: Other Production, Riverton CTs - Units 9, 10, 11

Historical and Forecast Plant Additions & Balances

Account: 345 Accessory Electric Equipment

Line	Vintage Year	Vintage Age	Reported Per Books			Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year		Vintage Year Retirements	Advance Additions	Additions	Retirements			
			Balance	Additions							Retirements
1	1964	69	45,121	-	-	-	45,121	-	-	45,121	
2	1965	68	-	-	-	-	-	-	-	45,121	
3	1966	67	-	-	-	-	-	-	-	45,121	
4	1967	66	-	-	-	-	-	-	-	45,121	
5	1968	65	-	-	-	-	-	-	-	45,121	
6	1969	64	-	-	-	-	-	-	-	45,121	
7	1970	63	-	-	-	-	-	-	-	45,121	
8	1971	62	-	-	-	-	-	-	-	45,121	
9	1972	61	-	-	-	-	-	-	-	45,121	
10	1973	60	-	-	-	-	-	-	-	45,121	
11	1974	59	-	-	-	-	-	-	-	45,121	
12	1975	58	-	-	-	-	-	-	-	45,121	
13	1976	57	-	-	-	-	-	-	-	45,121	
14	1977	56	-	-	-	-	-	-	-	45,121	
15	1978	55	-	-	-	-	-	-	-	45,121	
16	1979	54	-	-	-	-	-	-	-	45,121	
17	1980	53	-	-	-	-	-	-	-	45,121	
18	1981	52	-	-	-	-	-	-	-	45,121	
19	1982	51	-	-	-	-	-	-	-	45,121	
20	1983	50	-	-	-	-	-	-	-	45,121	
21	1984	49	-	-	-	-	-	-	-	45,121	
22	1985	48	-	-	-	-	-	-	-	45,121	
23	1986	47	-	-	-	-	-	-	-	45,121	
24	1987	46	-	-	-	-	-	-	-	45,121	
25	1988	45	203,186	-	-	(32,082)	-	203,186	-	248,307	
26	1989	44	-	-	-	-	-	-	-	248,307	
27	1990	43	-	-	-	-	-	-	-	248,307	
28	1991	42	38,826	-	-	-	-	38,826	-	287,133	
29	1992	41	-	-	-	-	-	-	-	287,133	
30	1993	40	-	-	-	-	-	-	-	287,133	
31	1994	39	-	-	-	-	-	-	-	287,133	
32	1995	38	674,923	-	-	-	-	674,923	-	962,056	
33	1996	37	-	-	-	-	-	-	-	962,056	
34	1997	36	-	-	-	-	-	-	-	962,056	
35	1998	35	-	-	-	-	-	-	-	962,056	
36	1999	34	-	-	-	-	-	-	-	962,056	
37	2000	33	-	-	-	-	-	-	-	962,056	
38	2001	32	-	-	-	-	-	-	-	962,056	
39	2002	31	-	27,610	-	-	-	27,610	-	989,666	
40	2003	30	-	-	-	-	-	-	-	989,666	
41	2004	29	-	3,580	-	-	-	3,580	-	993,246	
42	2005	28	-	-	-	-	-	-	-	993,246	
43	2006	27	-	-	-	-	-	-	-	993,246	
44	2007	26	-	741	-	-	-	741	-	993,987	
45	2008	25	-	-	-	-	-	-	639,599	1,633,586	
46	2009	24	-	628	-	-	-	628	-	1,634,214	
47	2010	23	-	-	-	-	-	-	-	1,634,214	
48	2011	22	-	-	-	-	-	-	-	1,634,214	
49	2012	21	-	-	-	-	-	-	-	1,634,214	
50	2013	20	-	-	-	-	16,812	16,812	-	1,651,026	
51	2014	19	-	-	-	-	-	-	-	1,651,026	
52	Total		\$ 962,056	\$ 32,559	\$ -	\$ (32,082)	\$ 16,812	\$ 1,011,427	\$ -	\$ 639,599	\$ 27,136,296

53 Major Additions/Retirements

54

55

56 Routine Activity

\$ 49,371 \$ -

57 Historical Interim Activity

0.18% 0.00%

58 Forecast Interim Activity

0.00% 0.00%

Major Additions**

Major Retirements

59	2015	18	UNIT 9 RETIRES IN 2015	-	-	1,425,532
60	2016	17		-	-	1,425,532
61	2017	16		-	-	1,425,532
62	2018	15		-	-	1,425,532
63	2019	14		-	-	1,425,532
64	2020	13		-	-	1,425,532
65	2021	12		-	-	1,425,532
66	2022	11		-	-	1,425,532
67	2023	10		-	-	1,425,532
68	2024	9		-	-	1,425,532
69	2025	8		-	-	1,425,532
70	2026	7		-	-	1,425,532
71	2027	6		-	-	1,425,532

The Empire District Electric Company

Gross Salvage	8%	
Cost of Removal	10%	
Net Salvage	-2%	
Install Date	1964 Unit 9	1988 Units 10, 11
Retirement Date	2015 Unit 9	2033 Units 10, 11
Service Life, Yrs	51 Unit 9	45 Units 10, 11

Unit Property Depreciation Rate Analysis

Unit Property: Other Production, Riverton CTs - Units 9, 10, 11

Historical and Forecast Plant Additions & Balances

Account: 345 Accessory Electric Equipment

Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year Retirements	Account 106 Advance Additions	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year					Additions	Retirements		
			Balance	Additions	Retirements						
72	2028	5					-	-		1,425,532	
73	2029	4					-	-		1,425,532	
74	2030	3					-	-		1,425,532	
75	2031	2					-	-		1,425,532	
76	2032	1					-	-		1,425,532	
77	2033	0							(1,425,532)	-	
							\$ -	\$ 1,011,427	\$ -		\$ 52,795,872

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	1,011,427
Forecast Additions	-
Total Additions	1,011,427
Gross Salvage Value	114,043
Less Cost of Removal	142,553
Net Salvage Value	(28,511)
Total to be Recovered	1,039,937

Forecast Plant Balances 52,795,872

Whole Life Accrual Rate	1.97%
Cost of Removal Accrual Rate	0.27%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.70%

Depreciable Service Life, years 50.8

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	1,651,026
Forecast Additions	-
Gross Salvage Value	114,043
Less Cost of Removal	142,553
Net Salvage Value	(28,511)

Depreciation Reserve Balance 12/31/14 (875,658)
(Includes adjustment to remove Unit 9 reserve from remaining life calculation)

Forecast Total Remaining Life Balance	803,878
Forecast Plant Balances	25,659,576
Remaining Life Accrual Rate	3.13%

Garren Proposed Annual Accrual

44,660
2.70%

The Empire District Electric Company

Gross Salvage	8%		
Cost of Removal	10%		
Net Salvage	-2%		
Install Date	1964	Unit 9	1988 Units 10, 11
Retirement Date	2015	Unit 9	2033 Units 10, 11
Service Life, Yrs	51	Unit 9	45 Units 10, 11

Unit Property Depreciation Rate Analysis

Unit Property: Other Production, Riverton CTs - Units 9, 10, 11

Historical and Forecast Plant Additions & Balances

Account: 346 Misc Power Equipment

Line	[A]	[B]	[C]			[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Advance	Account 106		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Balance	Additions	Retirements			Retirements	Additions	Retirements			
72	2028	5											199,477
73	2029	4											199,477
74	2030	3											199,477
75	2031	2											199,477
76	2032	1											199,477
77	2033	0										(199,477)	-
								\$ -	\$ -	\$ 215,291	\$ -		\$ 6,456,280

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	215,291
Forecast Additions	-
Total Additions	215,291
Gross Salvage Value	15,958
Less Cost of Removal	19,948
Net Salvage Value	(3,990)
Total to be Recovered	219,281

Forecast Plant Balances 6,456,280

Whole Life Accrual Rate 3.40%

Cost of Removal Accrual Rate 0.31%

Whole Life Accrual Rate (Excluding Cost of Removal) 3.09%

Depreciable Service Life, years 29.4

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	215,291
Forecast Additions	-
Gross Salvage Value	15,958
Less Cost of Removal	19,948
Net Salvage Value	(3,990)

Depreciation Reserve Balance 12/31/14 (75,836)

(Includes adjustment to remove Unit 9 reserve from remaining life calculation)

Forecast Total Remaining Life Balance 143,444

Forecast Plant Balances 3,590,581

Remaining Life Accrual Rate 4.00%

Garren Proposed

Annual Accrual

7,969

3.70%

Summary by Plant
 The Empire District Electric Company
Riverton CC - Unit 12

Account	Description	Direct Investment 2014\$	Depreciation Rate
341	Structures & Improvements	553,801	2.54%
342	Fuel Holders, Producers & Accessories	945,602	4.72%
343	Prime Movers	16,494,326	2.06%
344	Generators	11,548,070	2.16%
345	Accessory Electric Equipment	9,514,852	1.91%
346	Misc Power Equipment	1,484,186	1.92%
Total		40,540,836	2.12% remaining life weighted average rate

The Empire District Electric Company
 Unit Property Depreciation Rate Analysis
 Unit Property: Other Production, Riverton CC - Unit 12

Gross Salvage 8%
 Cost of Removal 10%
 Net Salvage -2%
 Install Date 2007
 Retirement Date 2057
 Service Life, Yrs 50

Historical and Forecast Plant Additions & Balances
 Account: 341 Structures & Improvements 0

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	2007	50	-	232,337	-	-	-	232,337	-	-	232,337
2	2008	49	-	-	-	-	-	-	-	-	232,337
3	2009	48	-	-	-	-	-	-	-	-	232,337
4	2010	47	-	-	-	-	-	-	-	-	232,337
5	2011	46	-	-	-	-	-	-	-	-	232,337
6	2012	45	-	-	-	-	-	-	-	-	232,337
7	2013	44	-	-	-	-	321,464	321,464	-	-	553,801
8	2014	43	-	-	-	-	-	-	-	-	553,801
9	Total		\$ -	\$ 232,337	\$ -	\$ -	\$ 321,464	\$ 553,801	\$ -	\$ -	\$ 2,501,624

10	Major Additions/Retirements										
11	2007		\$	232,337							
12	2013		\$	321,464							
13	Routine Activity		\$	-	\$	-					
14	Historical Interim Activity			0.00%		0.00%					
15	Forecast Interim Activity			0.23%		0.00%	(used State Line CC as a guide)				

		<u>Major Additions**</u>		<u>Major Retirements</u>			
16	2015	42		1,247	-		555,049
17	2016	41		1,250	-		556,299
18	2017	40		1,253	-		557,552
19	2018	39		1,256	-		558,808
20	2019	38		1,259	-		560,067
21	2020	37		1,262	-		561,328
22	2021	36		1,264	-		562,593
23	2022	35		1,267	-		563,860
24	2023	34		1,270	-		565,130
25	2024	33		1,273	-		566,403
26	2025	32		1,276	-		567,679
27	2026	31		1,279	-		568,957
28	2027	30		1,282	-		570,239
29	2028	29		1,284	-		571,524
30	2029	28		1,287	-		572,811
31	2030	27		1,290	-		574,101
32	2031	26		1,293	-		575,394
33	2032	25		1,296	-		576,690
34	2033	24		1,299	-		577,989
35	2034	23		1,302	-		579,291
36	2035	22		1,305	-		580,596
37	2036	21		1,308	-		581,904
38	2037	20		1,311	-		583,215
39	2038	19		1,314	-		584,528
40	2039	18		1,317	-		585,845
41	2040	17		1,320	-		587,165
42	2041	16		1,323	-		588,487
43	2042	15		1,326	-		589,813
44	2043	14		1,329	-		591,142
45	2044	13		1,332	-		592,473
46	2045	12		1,335	-		593,808
47	2046	11		1,338	-		595,145
48	2047	10		1,341	-		596,486
49	2048	9		1,344	-		597,829
50	2049	8		1,347	-		599,176
51	2050	7		1,350	-		600,526
52	2051	6		1,353	-		601,878
53	2052	5		1,356	-		603,234
54	2053	4		1,359	-		604,593
55	2054	3		1,362	-		605,955
56	2055	2		1,365	-		607,320
57	2056	1		1,368	-		608,688
58	2057	0				(608,688)	-
			\$ -	\$ 608,688	\$ -	\$ -	\$ 26,923,194

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	553,801
Forecast Additions	54,887
Total Additions	608,688
Gross Salvage Value	48,695
Less Cost of Removal	60,869
Net Salvage Value	(12,174)
Total to be Recovered	620,861
Forecast Plant Balances	26,923,194

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, Riverton CC - Unit 12	Install Date	2007
	Retirement Date	2057
	Service Life, Yrs	50
Historical and Forecast Plant Additions & Balances		
Account: 341 Structures & Improvements		0

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance
			Transaction Year		Advance		Additions	Retirements			
			Balance	Additions	Retirements	Retirements			Additions		

Whole Life Accrual Rate	2.31%
Cost of Removal Accrual Rate	0.23%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.08%

Depreciable Service Life, years 43.4

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	553,801	
Forecast Additions	54,887	
Gross Salvage Value	48,695	
Less Cost of Removal	60,869	
Net Salvage Value	(12,174)	
Depreciation Reserve Balance 12/31/14	(29,934)	Garren Proposed
Forecast Total Remaining Life Balance	590,927	Annual Accrual
Forecast Plant Balances	24,421,569	14,070
Remaining Life Accrual Rate	2.42%	2.54%

The Empire District Electric Company
 Unit Property Depreciation Rate Analysis
 Unit Property: Other Production, Riverton CC - Unit 12

Gross Salvage 8%
 Cost of Removal 10%
 Net Salvage -2%
 Install Date 2007
 Retirement Date 2057
 Service Life, Yrs 50

Historical and Forecast Plant Additions & Balances
 Account: 342 Fuel Holders, Producers & Accessories 0

Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance
			Transaction Year					Retirements	Additions		
			Balance	Additions	Retirements	Retirements	Additions			Retirements	
1	2007	50	-	945,602	-	-	-	945,602	-	-	945,602
2	2008	49	-	-	-	-	-	-	-	-	945,602
3	2009	48	-	-	-	-	-	-	-	-	945,602
4	2010	47	-	-	-	-	-	-	-	-	945,602
5	2011	46	-	-	-	-	-	-	-	-	945,602
6	2012	45	-	-	-	-	-	-	-	-	945,602
7	2013	44	-	-	-	-	-	-	-	-	945,602
8	2014	43	-	-	-	-	-	-	-	-	945,602
9	Total		\$ -	\$ 945,602	\$ -	\$ -	\$ -	\$ 945,602	\$ -	\$ -	\$ 7,564,816
10	Major Additions/Retirements										
11	2007		\$	945,602							
12											
13	Routine Activity										
14	Historical Interim Activity			0.00%		0.00%					
15	Forecast Interim Activity			1.80%		-0.10%	(used State Line CC as a guide)				
							Major Additions**		Major Retirements		
16	2015	42						17,002	(903)		961,701
17	2016	41						17,291	(918)		978,074
18	2017	40						17,586	(934)		994,726
19	2018	39						17,885	(950)		1,011,662
20	2019	38						18,190	(966)		1,028,886
21	2020	37						18,499	(982)		1,046,403
22	2021	36						18,814	(999)		1,064,218
23	2022	35						19,135	(1,016)		1,082,337
24	2023	34						19,461	(1,033)		1,100,764
25	2024	33						19,792	(1,051)		1,119,505
26	2025	32						20,129	(1,069)		1,138,564
27	2026	31						20,471	(1,087)		1,157,949
28	2027	30						20,820	(1,106)		1,177,663
29	2028	29						21,174	(1,124)		1,197,713
30	2029	28						21,535	(1,144)		1,218,105
31	2030	27						21,902	(1,163)		1,238,843
32	2031	26						22,275	(1,183)		1,259,935
33	2032	25						22,654	(1,203)		1,281,386
34	2033	24						23,039	(1,223)		1,303,202
35	2034	23						23,432	(1,244)		1,325,389
36	2035	22						23,831	(1,265)		1,347,954
37	2036	21						24,236	(1,287)		1,370,903
38	2037	20						24,649	(1,309)		1,394,243
39	2038	19						25,069	(1,331)		1,417,981
40	2039	18						25,495	(1,354)		1,442,122
41	2040	17						25,929	(1,377)		1,466,675
42	2041	16						26,371	(1,400)		1,491,645
43	2042	15						26,820	(1,424)		1,517,041
44	2043	14						27,277	(1,448)		1,542,869
45	2044	13						27,741	(1,473)		1,569,137
46	2045	12						28,213	(1,498)		1,595,852
47	2046	11						28,694	(1,524)		1,623,022
48	2047	10						29,182	(1,550)		1,650,654
49	2048	9						29,679	(1,576)		1,678,757
50	2049	8						30,184	(1,603)		1,707,338
51	2050	7						30,698	(1,630)		1,736,406
52	2051	6						31,221	(1,658)		1,765,969
53	2052	5						31,752	(1,686)		1,796,035
54	2053	4						32,293	(1,715)		1,826,613
55	2054	3						32,843	(1,744)		1,857,712
56	2055	2						33,402	(1,774)		1,889,340
57	2056	1						33,971	(1,804)		1,921,506
58	2057	0								(1,921,506)	-
								\$ -	\$ 1,976,237	\$ (54,731)	\$ 65,861,614

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	945,602
Forecast Additions	1,030,635
Total Additions	1,976,237
Gross Salvage Value	153,720
Less Cost of Removal	192,151
Net Salvage Value	(38,430)
Total to be Recovered	2,014,667
Forecast Plant Balances	65,861,614

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, Riverton CC - Unit 12	Install Date	2007
	Retirement Date	2057
	Service Life, Yrs	50
Historical and Forecast Plant Additions & Balances		
Account: 342 Fuel Holders, Producers & Accessories		0

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance
			Transaction Year		Advance		Additions	Retirements			
			Balance	Additions	Retirements	Retirements			Additions	Retirements	

Whole Life Accrual Rate	3.06%
Cost of Removal Accrual Rate	0.29%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.77%

Depreciable Service Life, years 32.7

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	945,602
Forecast Additions	1,030,635
Gross Salvage Value	153,720
Less Cost of Removal	<u>192,151</u>
Net Salvage Value	(38,430)

Depreciation Reserve Balance 12/31/14	(139,901)	Garren Proposed
Forecast Total Remaining Life Balance	1,874,766	Annual Accrual
Forecast Plant Balances	58,296,798	44,637
Remaining Life Accrual Rate	3.22%	4.72%

The Empire District Electric Company
 Unit Property Depreciation Rate Analysis
 Unit Property: Other Production, Riverton CC - Unit 12

Gross Salvage 10%
 Cost of Removal 5%
 Net Salvage 5%
 Install Date 2007
 Retirement Date 2057
 Service Life, Yrs 50

Historical and Forecast Plant Additions & Balances
 Account: 343 Prime Movers 0

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	2007	50	-	14,865,865	-	-	-	14,865,865	-	-	14,865,865
2	2008	49	-	-	-	-	-	-	-	-	14,865,865
3	2009	48	-	13,815	-	-	-	13,815	-	-	14,879,680
4	2010	47	-	-	-	-	-	-	-	-	14,879,680
5	2011	46	-	-	-	-	-	-	-	-	14,879,680
6	2012	45	-	-	-	-	-	-	-	-	14,879,680
7	2013	44	-	-	-	-	-	-	-	-	14,879,680
8	2014	43	-	-	-	-	1,614,646	1,614,646	-	-	16,494,326
9	Total		\$ -	\$ 14,879,680	\$ -	\$ -	\$ 1,614,646	\$ 16,494,326	\$ -	\$ -	\$ 120,624,454

10 Major Additions/Retirements

11	2007	\$ 14,865,865	
12	2014	\$ 1,614,646	
13	Routine Activity	\$ 13,815	\$ -
14	Historical Interim Activity	0.01%	0.00%
15	Forecast Interim Activity	0.22%	-0.09% (used State Line CC as a guide)

Major Additions**

Major Retirements

16	2015	42		35,519	(14,062)	16,515,783			
17	2016	41		35,565	(14,080)	16,537,267			
18	2017	40		35,611	(14,098)	16,558,780			
19	2018	39		35,658	(14,117)	16,580,321			
20	2019	38		35,704	(14,135)	16,601,890			
21	2020	37		35,750	(14,154)	16,623,487			
22	2021	36		35,797	(14,172)	16,645,112			
23	2022	35		35,843	(14,190)	16,666,765			
24	2023	34		35,890	(14,209)	16,688,446			
25	2024	33		35,937	(14,227)	16,710,155			
26	2025	32		35,984	(14,246)	16,731,893			
27	2026	31		36,030	(14,264)	16,753,659			
28	2027	30		36,077	(14,283)	16,775,453			
29	2028	29		36,124	(14,302)	16,797,276			
30	2029	28		36,171	(14,320)	16,819,127			
31	2030	27		36,218	(14,339)	16,841,006			
32	2031	26		36,265	(14,357)	16,862,914			
33	2032	25		36,313	(14,376)	16,884,851			
34	2033	24		36,360	(14,395)	16,906,816			
35	2034	23		36,407	(14,414)	16,928,809			
36	2035	22		36,454	(14,432)	16,950,831			
37	2036	21		36,502	(14,451)	16,972,882			
38	2037	20		36,549	(14,470)	16,994,962			
39	2038	19		36,597	(14,489)	17,017,070			
40	2039	18		36,644	(14,508)	17,039,207			
41	2040	17		36,692	(14,526)	17,061,373			
42	2041	16		36,740	(14,545)	17,083,567			
43	2042	15		36,788	(14,564)	17,105,791			
44	2043	14		36,836	(14,583)	17,128,043			
45	2044	13		36,883	(14,602)	17,150,324			
46	2045	12		36,931	(14,621)	17,172,635			
47	2046	11		36,979	(14,640)	17,194,974			
48	2047	10		37,028	(14,659)	17,217,342			
49	2048	9		37,076	(14,678)	17,239,740			
50	2049	8		37,124	(14,697)	17,262,166			
51	2050	7		37,172	(14,716)	17,284,622			
52	2051	6		37,221	(14,736)	17,307,107			
53	2052	5		37,269	(14,755)	17,329,621			
54	2053	4		37,318	(14,774)	17,352,165			
55	2054	3		37,366	(14,793)	17,374,738			
56	2055	2		37,415	(14,812)	17,397,340			
57	2056	1		37,463	(14,832)	17,419,972			
58	2057	0				(17,419,972)			
						\$ -	\$ 18,026,596	\$ (606,624)	\$ 833,110,737

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	16,494,326
Forecast Additions	1,532,271
Total Additions	18,026,596
Gross Salvage Value	1,741,997
Less Cost of Removal	870,999
Net Salvage Value	870,999
Total to be Recovered	17,155,598
Forecast Plant Balances	833,110,737

The Empire District Electric Company	Gross Salvage	10%
	Cost of Removal	5%
Unit Property Depreciation Rate Analysis	Net Salvage	5%
Unit Property: Other Production, Riverton CC - Unit 12	Install Date	2007
	Retirement Date	2057
	Service Life, Yrs	50
Historical and Forecast Plant Additions & Balances		
Account: 343 Prime Movers		0

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance
			Transaction Year		Advance		Additions	Retirements			
			Balance	Additions	Retirements	Retirements			Additions		

Whole Life Accrual Rate	2.06%
Cost of Removal Accrual Rate	0.10%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.95%

Depreciable Service Life, years 48.6

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	16,494,326
Forecast Additions	1,532,271
Gross Salvage Value	1,741,997
Less Cost of Removal	870,999
Net Salvage Value	870,999

Depreciation Reserve Balance 12/31/14	(2,857,695)	Garren Proposed
Forecast Total Remaining Life Balance	14,297,902	Annual Accrual
Forecast Plant Balances	712,486,283	340,426
Remaining Life Accrual Rate	2.01%	2.06%

The Empire District Electric Company
 Unit Property Depreciation Rate Analysis
 Unit Property: Other Production, Riverton CC - Unit 12

Gross Salvage 10%
 Cost of Removal 5%
 Net Salvage 5%
 Install Date 2007
 Retirement Date 2057
 Service Life, Yrs 50

Historical and Forecast Plant Additions & Balances
 Account: 344 Generators 0

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	2007	50	-	11,445,708	-	-	-	11,445,708	-	-	11,445,708
2	2008	49	-	-	-	-	-	-	-	-	11,445,708
3	2009	48	-	-	-	-	-	-	-	-	11,445,708
4	2010	47	-	91,356	-	-	-	91,356	-	-	11,537,064
5	2011	46	-	-	-	-	-	-	-	-	11,537,064
6	2012	45	-	-	-	-	-	-	-	-	11,537,064
7	2013	44	-	-	-	-	11,006	11,006	-	-	11,548,070
8	2014	43	-	-	-	-	-	-	-	-	11,548,070
9	Total		\$ -	\$ 11,537,064	\$ -	\$ -	\$ 11,006	\$ 11,548,070	\$ -	\$ -	\$ 92,044,456
10	Major Additions/Retirements										
11	2007		\$	11,445,708							
12											
13	Routine Activity		\$	102,362	\$	-					
14	Historical Interim Activity			0.11%		0.00%					
15	Forecast Interim Activity			0.25%		0.00% (used State Line CC as a guide)					
							Major Additions**		Major Retirements		
16	2015	42					28,532	(0)			11,576,601
17	2016	41					28,602	(0)			11,605,203
18	2017	40					28,673	(0)			11,633,876
19	2018	39					28,744	(0)			11,662,620
20	2019	38					28,815	(0)			11,691,434
21	2020	37					28,886	(0)			11,720,320
22	2021	36					28,957	(0)			11,749,277
23	2022	35					29,029	(0)			11,778,306
24	2023	34					29,100	(0)			11,807,407
25	2024	33					29,172	(0)			11,836,579
26	2025	32					29,244	(0)			11,865,823
27	2026	31					29,317	(0)			11,895,140
28	2027	30					29,389	(0)			11,924,529
29	2028	29					29,462	(0)			11,953,991
30	2029	28					29,535	(0)			11,983,525
31	2030	27					29,607	(0)			12,013,133
32	2031	26					29,681	(0)			12,042,813
33	2032	25					29,754	(0)			12,072,567
34	2033	24					29,827	(0)			12,102,395
35	2034	23					29,901	(0)			12,132,296
36	2035	22					29,975	(0)			12,162,271
37	2036	21					30,049	(0)			12,192,320
38	2037	20					30,123	(0)			12,222,444
39	2038	19					30,198	(0)			12,252,641
40	2039	18					30,272	(0)			12,282,914
41	2040	17					30,347	(0)			12,313,261
42	2041	16					30,422	(0)			12,343,683
43	2042	15					30,497	(0)			12,374,180
44	2043	14					30,573	(0)			12,404,753
45	2044	13					30,648	(0)			12,435,401
46	2045	12					30,724	(0)			12,466,125
47	2046	11					30,800	(0)			12,496,925
48	2047	10					30,876	(0)			12,527,801
49	2048	9					30,952	(0)			12,558,753
50	2049	8					31,029	(0)			12,589,782
51	2050	7					31,105	(0)			12,620,887
52	2051	6					31,182	(0)			12,652,069
53	2052	5					31,259	(0)			12,683,328
54	2053	4					31,336	(0)			12,714,665
55	2054	3					31,414	(0)			12,746,079
56	2055	2					31,492	(0)			12,777,570
57	2056	1					31,569	(0)			12,809,140
58	2057	0							(12,809,140)		-
			\$	-	\$	12,809,140	\$	(0)		\$	603,719,286

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	11,548,070
Forecast Additions	1,261,070
Total Additions	12,809,140
Gross Salvage Value	1,280,914
Less Cost of Removal	640,457
Net Salvage Value	640,457
Total to be Recovered	12,168,683
Forecast Plant Balances	603,719,286

The Empire District Electric Company	Gross Salvage	10%
	Cost of Removal	5%
Unit Property Depreciation Rate Analysis	Net Salvage	5%
Unit Property: Other Production, Riverton CC - Unit 12	Install Date	2007
	Retirement Date	2057
	Service Life, Yrs	50
Historical and Forecast Plant Additions & Balances		
Account: 344 Generators		0

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year Retirements	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance
			Transaction Year		Advance		Additions	Retirements			
			Balance	Additions	Retirements	Additions					

Whole Life Accrual Rate	2.02%
Cost of Removal Accrual Rate	0.11%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.91%

Depreciable Service Life, years 49.6

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	11,548,070	
Forecast Additions	1,261,070	
Gross Salvage Value	1,280,914	
Less Cost of Removal	640,457	
Net Salvage Value	640,457	
Depreciation Reserve Balance 12/31/14	(1,673,752)	Garren Proposed
Forecast Total Remaining Life Balance	10,494,931	Annual Accrual
Forecast Plant Balances	511,674,830	249,879
Remaining Life Accrual Rate	2.05%	2.16%

The Empire District Electric Company
 Unit Property Depreciation Rate Analysis
 Unit Property: Other Production, Riverton CC - Unit 12

Gross Salvage 8%
 Cost of Removal 10%
 Net Salvage -2%
 Install Date 2007
 Retirement Date 2057
 Service Life, Yrs 50

Historical and Forecast Plant Additions & Balances
 Account: 345 Accessory Electric Equipment 0

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	2007	50	-	9,546,934	(32,082)	-	-	9,546,934	(32,082)	-	9,514,852
2	2008	49	-	-	-	-	-	-	-	-	9,514,852
3	2009	48	-	-	-	-	-	-	-	-	9,514,852
4	2010	47	-	-	-	-	-	-	-	-	9,514,852
5	2011	46	-	-	-	-	-	-	-	-	9,514,852
6	2012	45	-	-	-	-	-	-	-	-	9,514,852
7	2013	44	-	-	-	-	-	-	-	-	9,514,852
8	2014	43	-	-	-	-	-	-	-	-	9,514,852
9	Total		\$ -	\$ 9,546,934	\$ (32,082)	\$ -	\$ -	\$ 9,546,934	\$ (32,082)	\$ -	\$ 76,118,815
10	Major Additions/Retirements										
11	2007		\$ -	\$ 9,546,934	\$ (32,082)						
12											
13	Routine Activity										
14	Historical Interim Activity			0.00%	0.00%						
15	Forecast Interim Activity			0.00%	0.00%	(used State Line CC as a guide)					
						Major Additions**			Major Retirements		
16	2015	42						-	-		9,514,852
17	2016	41						-	-		9,514,852
18	2017	40						-	-		9,514,852
19	2018	39						-	-		9,514,852
20	2019	38						-	-		9,514,852
21	2020	37						-	-		9,514,852
22	2021	36						-	-		9,514,852
23	2022	35						-	-		9,514,852
24	2023	34						-	-		9,514,852
25	2024	33						-	-		9,514,852
26	2025	32						-	-		9,514,852
27	2026	31						-	-		9,514,852
28	2027	30						-	-		9,514,852
29	2028	29						-	-		9,514,852
30	2029	28						-	-		9,514,852
31	2030	27						-	-		9,514,852
32	2031	26						-	-		9,514,852
33	2032	25						-	-		9,514,852
34	2033	24						-	-		9,514,852
35	2034	23						-	-		9,514,852
36	2035	22						-	-		9,514,852
37	2036	21						-	-		9,514,852
38	2037	20						-	-		9,514,852
39	2038	19						-	-		9,514,852
40	2039	18						-	-		9,514,852
41	2040	17						-	-		9,514,852
42	2041	16						-	-		9,514,852
43	2042	15						-	-		9,514,852
44	2043	14						-	-		9,514,852
45	2044	13						-	-		9,514,852
46	2045	12						-	-		9,514,852
47	2046	11						-	-		9,514,852
48	2047	10						-	-		9,514,852
49	2048	9						-	-		9,514,852
50	2049	8						-	-		9,514,852
51	2050	7						-	-		9,514,852
52	2051	6						-	-		9,514,852
53	2052	5						-	-		9,514,852
54	2053	4						-	-		9,514,852
55	2054	3						-	-		9,514,852
56	2055	2						-	-		9,514,852
57	2056	1						-	-		9,514,852
58	2057	0						-	-		9,514,852
										(9,514,852)	-
			\$ -	\$ 9,546,934	\$ (32,082)			\$ -	\$ (32,082)	\$ -	\$ 475,742,596

** From 2015 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	9,546,934
Forecast Additions	-
Total Additions	9,546,934
Gross Salvage Value	761,188
Less Cost of Removal	951,485
Net Salvage Value	(190,297)
Total to be Recovered	9,737,231
Forecast Plant Balances	475,742,596

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, Riverton CC - Unit 12	Install Date	2007
	Retirement Date	2057
	Service Life, Yrs	50
Historical and Forecast Plant Additions & Balances		
Account: 345 Accessory Electric Equipment		0

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year Retirements	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance
			Transaction Year		Advance		Additions	Retirements			
			Balance	Additions	Retirements	Additions					

Whole Life Accrual Rate	2.05%
Cost of Removal Accrual Rate	0.20%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.85%

Depreciable Service Life, years 48.9

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	9,514,852	
Forecast Additions	-	
Gross Salvage Value	761,188	
Less Cost of Removal	951,485	
Net Salvage Value	(190,297)	
Depreciation Reserve Balance 12/31/14	(2,066,927)	Garren Proposed
Forecast Total Remaining Life Balance	7,638,222	Annual Accrual
Forecast Plant Balances	399,623,781	181,862
Remaining Life Accrual Rate	1.91%	1.91%

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, Riverton CC - Unit 12	Install Date	2007
	Retirement Date	2057
	Service Life, Yrs	50

Historical and Forecast Plant Additions & Balances
Account: 346 Misc Power Equipment 0

Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance	
			Transaction Year					Retirements	Additions			Retirements
			Balance	Additions	Retirements							
1	2007	50	-	1,484,186	-	-	-	1,484,186	-	-	1,484,186	
2	2008	49	-	-	-	-	-	-	-	-	1,484,186	
3	2009	48	-	-	-	-	-	-	-	-	1,484,186	
4	2010	47	-	-	-	-	-	-	-	-	1,484,186	
5	2011	46	-	-	-	-	-	-	-	-	1,484,186	
6	2012	45	-	-	-	-	-	-	-	-	1,484,186	
7	2013	44	-	-	-	-	-	-	-	-	1,484,186	
8	2014	43	-	-	-	-	-	-	-	-	1,484,186	
9	Total		\$ -	\$ 1,484,186	\$ -	\$ -	\$ -	\$ 1,484,186	\$ -	\$ -	\$ 11,873,488	
10	Major Additions/Retirements											
11	2007		\$	1,484,186								
12												
13	Routine Activity		\$	-	\$	-						
14	Historical Interim Activity			0.00%		0.00%						
15	Forecast Interim Activity			0.00%		0.00%	(used State Line CC as a guide)					
							<u>Major Additions**</u>		<u>Major Retirements</u>			
16	2015	42						-	-		1,484,186	
17	2016	41						-	-		1,484,186	
18	2017	40						-	-		1,484,186	
19	2018	39						-	-		1,484,186	
20	2019	38						-	-		1,484,186	
21	2020	37						-	-		1,484,186	
22	2021	36						-	-		1,484,186	
23	2022	35						-	-		1,484,186	
24	2023	34						-	-		1,484,186	
25	2024	33						-	-		1,484,186	
26	2025	32						-	-		1,484,186	
27	2026	31						-	-		1,484,186	
28	2027	30						-	-		1,484,186	
29	2028	29						-	-		1,484,186	
30	2029	28						-	-		1,484,186	
31	2030	27						-	-		1,484,186	
32	2031	26						-	-		1,484,186	
33	2032	25						-	-		1,484,186	
34	2033	24						-	-		1,484,186	
35	2034	23						-	-		1,484,186	
36	2035	22						-	-		1,484,186	
37	2036	21						-	-		1,484,186	
38	2037	20						-	-		1,484,186	
39	2038	19						-	-		1,484,186	
40	2039	18						-	-		1,484,186	
41	2040	17						-	-		1,484,186	
42	2041	16						-	-		1,484,186	
43	2042	15						-	-		1,484,186	
44	2043	14						-	-		1,484,186	
45	2044	13						-	-		1,484,186	
46	2045	12						-	-		1,484,186	
47	2046	11						-	-		1,484,186	
48	2047	10						-	-		1,484,186	
49	2048	9						-	-		1,484,186	
50	2049	8						-	-		1,484,186	
51	2050	7						-	-		1,484,186	
52	2051	6						-	-		1,484,186	
53	2052	5						-	-		1,484,186	
54	2053	4						-	-		1,484,186	
55	2054	3						-	-		1,484,186	
56	2055	2						-	-		1,484,186	
57	2056	1						-	-		1,484,186	
58	2057	0							(1,484,186)		-	
			\$	-	\$	1,484,186	\$	-	\$	-	\$	74,209,300

** From 2015 capital budget

Whole Life Depreciation Rate Calculation	
Historical Additions	1,484,186
Forecast Additions	-
Total Additions	1,484,186
Gross Salvage Value	118,735
Less Cost of Removal	148,419
Net Salvage Value	(29,684)
Total to be Recovered	1,513,870
Forecast Plant Balances	74,209,300

The Empire District Electric Company
 Gross Salvage 8%
 Cost of Removal 10%
Unit Property Depreciation Rate Analysis
 Net Salvage -2%
Unit Property: Other Production, Riverton CC - Unit 12
 Install Date 2007
 Retirement Date 2057
 Service Life, Yrs 50
Historical and Forecast Plant Additions & Balances
Account: 346 Misc Power Equipment 0

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year Retirements	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance
			Transaction Year				Advance	Additions	Retirements		
			Balance	Additions	Retirements		Additions				

Whole Life Accrual Rate 2.04%
 Cost of Removal Accrual Rate 0.20%
 Whole Life Accrual Rate (Excluding Cost of Removal) 1.84%

Depreciable Service Life, years 49.0

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	1,484,186	
Forecast Additions	-	
Gross Salvage Value	118,735	
Less Cost of Removal	148,419	
Net Salvage Value	(29,684)	
Depreciation Reserve Balance 12/31/14	(317,227)	Garren Proposed
Forecast Total Remaining Life Balance	1,196,643	Annual Accrual
Forecast Plant Balances	62,335,812	28,491
Remaining Life Accrual Rate	1.92%	1.92%

Summary by Plant
The Empire District Electric Company
State Line Combined Cycle

Account	Description	Direct Investment 2014\$	Depreciation Rate
341	Structures & Improvements	10,635,060	2.04%
342	Fuel Holders, Producers & Accessories	366,555	0.00%
343	Prime Movers	104,291,940	1.92%
344	Generators	31,250,753	2.98%
345	Accessory Electric Equipment	8,207,163	2.00%
346	Misc Power Equipment	2,910,958	2.27%
Total		157,662,430	2.14% remaining life weighted average rate

The Empire District Electric Company
 Unit Property Depreciation Rate Analysis
 Unit Property: Other Production, State Line Combined Cycle

Gross Salvage 8%
 Cost of Removal 10%
 Net Salvage -2%
 Install Date 2001
 Retirement Date 2051
 Service Life, Yrs 50

Historical and Forecast Plant Additions & Balances
 Account: 341 Structures & Improvements

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106 Advance Additions	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements		Additions	Retirements		
			Balance	Additions	Retirements						
1	1995	56	2,052,941	-	-	-	2,052,941	-	0	2,052,941	
2	1996	55	-	-	-	-	-	-	0	2,052,941	
3	1997	54	980,448	-	-	-	980,448	-	0	3,033,389	
4	1998	53	-	-	-	-	-	-	0	3,033,389	
5	1999	52	-	-	-	-	-	-	0	3,033,389	
6	2000	51	-	-	-	-	-	-	0	3,033,389	
7	2001	50	-	5,168,284	-	-	5,168,284	-	0	8,201,673	
8	2002	49	-	2,070,108	-	-	2,070,108	-	0	10,271,781	
9	2003	48	-	84,232	-	-	84,232	-	0	10,356,013	
10	2004	47	-	130,126	-	-	130,126	-	0	10,486,139	
11	2005	46	-	43,991	-	-	43,991	-	0	10,530,130	
12	2006	45	-	-	-	-	-	-	0	10,530,130	
13	2007	44	-	-	-	-	-	-	0	10,530,130	
14	2008	43	-	-	-	-	0	0	0	10,530,130	
15	2009	42	-	-	-	-	(0)	(0)	0	10,530,130	
16	2010	41	-	37,213	-	-	-	37,213	0	10,567,343	
17	2011	40	-	5,384	-	-	44,008	49,392	0	10,616,735	
18	2012	39	-	-	-	-	-	-	0	10,616,735	
19	2013	38	-	-	-	-	18,325	18,325	0	10,635,060	
20	2014	37	-	-	-	-	-	-	0	10,635,060	
21	Total		\$ 3,033,389	\$ 7,539,338	\$ -	\$ -	\$ 62,333	\$ 10,635,060	\$ -	\$ -	\$ 161,276,627

22 Major Additions/Retirements

23	2001		\$ 5,168,284								
24	2002		\$ 2,070,108								
25											
26											
27	Routine Activity (excluding Westar advances)		\$ 363,279	\$ -							
28	Historical Interim Activity		0.00%	0.00%							
29	Forecast Interim Activity		0.00%	0.00%							

Major Additions**

Major Retirements

30	2015	36									10,635,060
31	2016	35									10,635,060
32	2017	34									10,635,060
33	2018	33									10,635,060
34	2019	32									10,635,060
35	2020	31									10,635,060
36	2021	30									10,635,060
37	2022	29									10,635,060
38	2023	28									10,635,060
39	2024	27									10,635,060
40	2025	26									10,635,060
41	2026	25									10,635,060
42	2027	24									10,635,060
43	2028	23									10,635,060
44	2029	22									10,635,060
45	2030	21									10,635,060
46	2031	20									10,635,060
47	2032	19									10,635,060
48	2033	18									10,635,060
49	2034	17									10,635,060
50	2035	16									10,635,060
51	2036	15									10,635,060
52	2037	14									10,635,060
53	2038	13									10,635,060
54	2039	12									10,635,060
55	2040	11									10,635,060
56	2041	10									10,635,060
57	2042	9									10,635,060
58	2043	8									10,635,060
59	2044	7									10,635,060
60	2045	6									10,635,060
61	2046	5									10,635,060
62	2047	4									10,635,060
63	2048	3									10,635,060
64	2049	2									10,635,060
65	2050	1									10,635,060
66	2051	0								(10,635,060)	-
			\$ -	\$ 10,635,060	\$ -			\$ -			\$ 544,138,797

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, State Line Combined Cycle	Install Date	2001
	Retirement Date	2051
	Service Life, Yrs	50

Historical and Forecast Plant Additions & Balances
Account: 341 Structures & Improvements

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year Retirements	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Advance		Additions	Retirements			
			Balance	Additions	Retirements						

Whole Life Depreciation Rate Calculation

Historical Additions	10,635,060
Forecast Additions	-
Total Additions	10,635,060
Gross Salvage Value	850,805
Less Cost of Removal	<u>1,063,506</u>
Net Salvage Value	(212,701)
Total to be Recovered	10,847,761

Forecast Plant Balances 544,138,797

Whole Life Accrual Rate 1.99%

Cost of Removal Accrual Rate 0.20%

Whole Life Accrual Rate (Excluding Cost of Removal) 1.80%

Depreciable Service Life, years 50.2

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	10,635,060
Forecast Additions	-
Gross Salvage Value	850,804.82
Less Cost of Removal	<u>1,063,506.03</u>
Net Salvage Value	(212,701)

Depreciation Reserve Balance 12/31/14 (3,038,448)

Garren Proposd Annual Accrual

Forecast Total Remaining Life Balance 7,809,314

216,925

Forecast Plant Balances 382,862,170

Remaining Life Accrual Rate 2.04%

2.04%

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, State Line Combined Cycle	Install Date	2001
	Retirement Date	2051
	Service Life, Yrs	50

Historical and Forecast Plant Additions & Balances
Account: 342 Fuel Holders, Producers & Accessories

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	1995	56	158,054	-	-	-	-	158,054	-	-	158,054
2	1996	55	-	-	-	-	-	-	-	-	158,054
3	1997	54	56,724	-	-	(6,152)	-	56,724	-	-	214,778
4	1998	53	1,256	-	-	-	-	1,256	-	-	216,034
5	1999	52	-	-	-	-	-	-	-	-	216,034
6	2000	51	-	-	-	-	-	-	-	-	216,034
7	2001	50	-	121,724	-	(80,899)	-	121,724	-	-	337,758
8	2002	49	-	-	-	-	-	-	-	-	337,758
9	2003	48	-	-	-	-	-	-	-	-	337,758
10	2004	47	-	90,038	-	-	-	90,038	-	-	427,796
11	2005	46	-	-	-	-	-	-	-	-	427,796
12	2006	45	-	(2,175)	-	-	-	(2,175)	-	-	425,621
13	2007	44	-	-	-	-	-	-	-	-	425,621
14	2008	43	-	-	(80,899)	-	0	0	(80,899)	-	344,722
15	2009	42	-	28,826	(6,152)	-	(840)	27,985	(6,152)	-	366,555
16	2010	41	-	-	-	-	-	-	-	-	366,555
17	2011	40	-	-	-	-	-	-	-	-	366,555
18	2012	39	-	-	-	-	-	-	-	-	366,555
19	2013	38	-	-	-	-	-	-	-	-	366,555
20	2014	37	-	-	-	-	-	-	-	-	366,555
21	Total		\$ 216,034	\$ 238,412	\$ (87,051)	\$ (87,051)	\$ (840)	\$ 453,606	\$ (87,051)	\$ -	\$ 6,443,150

22 Major Additions/Retirements

23	2001		\$ 121,724								
24	2008			\$ (80,899)							
25											
26											
27	Routine Activity (excluding Westar advances)	\$	115,848	\$	(6,152)						
28	Historical Interim Activity		1.80%		-0.10%						
29	Forecast Interim Activity		0.00%		-0.10%						

Major Additions**

30	2015	36						6,591	(350)		372,796
31	2016	35						-	(356)		372,440
32	2017	34						-	(356)		372,085
33	2018	33						-	(355)		371,729
34	2019	32						-	(355)		371,374
35	2020	31						-	(355)		371,020
36	2021	30						-	(354)		370,666
37	2022	29						-	(354)		370,312
38	2023	28						-	(354)		369,958
39	2024	27						-	(353)		369,605
40	2025	26						-	(353)		369,252
41	2026	25						-	(353)		368,899
42	2027	24						-	(352)		368,547
43	2028	23						-	(352)		368,195
44	2029	22						-	(352)		367,844
45	2030	21						-	(351)		367,492
46	2031	20						-	(351)		367,142
47	2032	19						-	(351)		366,791
48	2033	18						-	(350)		366,441
49	2034	17						-	(350)		366,091
50	2035	16						-	(350)		365,741
51	2036	15						-	(349)		365,392
52	2037	14						-	(349)		365,043
53	2038	13						-	(349)		364,695
54	2039	12						-	(348)		364,346
55	2040	11						-	(348)		363,999
56	2041	10						-	(348)		363,651
57	2042	9						-	(347)		363,304
58	2043	8						-	(347)		362,957
59	2044	7						-	(347)		362,610
60	2045	6						-	(346)		362,264
61	2046	5						-	(346)		361,918
62	2047	4						-	(346)		361,573
63	2048	3						-	(345)		361,227
64	2049	2						-	(345)		360,883
65	2050	1						-	(345)		360,538
66	2051	0								(360,538)	-
								\$ -	\$ 460,197	\$ (99,659)	\$ 19,641,970

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, State Line Combined Cycle	Install Date	2001
	Retirement Date	2051
	Service Life, Yrs	50

Historical and Forecast Plant Additions & Balances
Account: 342 Fuel Holders, Producers & Accessories

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year Retirements	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Advance		Additions	Retirements			
			Balance	Additions	Retirements						

Whole Life Depreciation Rate Calculation

Historical Additions	453,606
Forecast Additions	6,591
Total Additions	460,197
Gross Salvage Value	28,843
Less Cost of Removal	36,054
Net Salvage Value	(7,211)
Total to be Recovered	467,408

Forecast Plant Balances 19,641,970

Whole Life Accrual Rate 2.38%

Cost of Removal Accrual Rate 0.18%

Whole Life Accrual Rate (Excluding Cost of Removal) 2.20%

Depreciable Service Life, years 42.0

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	366,555
Forecast Additions	6,591
Gross Salvage Value	28,843
Less Cost of Removal	36,054
Net Salvage Value	(7,211)

Depreciation Reserve Balance 12/31/14 (1,632,929) **Garren Proposd**

Forecast Total Remaining Life Balance (1,252,572) **Annual Accrual**

Forecast Plant Balances 13,198,820

Remaining Life Accrual Rate -9.49% -9.49%

The Empire District Electric Company	Gross Salvage	10%
	Cost of Removal	5%
Unit Property Depreciation Rate Analysis	Net Salvage	5%
Unit Property: Other Production, State Line Combined Cycle	Install Date	2001
	Retirement Date	2051
	Service Life, Yrs	50

Historical and Forecast Plant Additions & Balances
Account: 343 Prime Movers

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106 Advance	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements		Additions	Retirements		
			Balance	Additions	Retirements		Additions			Retirements	
1	1995	56	-	-	-	-	-	-	0	-	
2	1996	55	-	-	-	-	-	-	0	-	
3	1997	54	12,678,547	6,805	-	(1,209,783)	-	12,685,352	-	0	12,685,352
4	1998	53	-	-	-	-	-	-	-	0	12,685,352
5	1999	52	-	74,707	-	-	-	74,707	-	0	12,760,059
6	2000	51	-	212,156	-	-	-	212,156	-	0	12,972,215
7	2001	50	-	86,733,933	-	(1,230,682)	0	86,733,933	-	0	99,706,148
8	2002	49	-	1,702,065	-	-	-	1,702,065	-	0	101,408,213
9	2003	48	-	-	-	-	-	-	-	0	101,408,213
10	2004	47	-	68,742	-	-	-	68,742	-	0	101,476,955
11	2005	46	-	-	-	-	-	-	-	0	101,476,955
12	2006	45	-	354,505	-	-	-	354,505	-	0	101,831,460
13	2007	44	-	106,361	-	-	(175,213)	(68,852)	-	0	101,762,608
14	2008	43	-	116,263	(415,707)	-	175,213	291,476	(415,707)	0	101,638,378
15	2009	42	-	7,877,986	(231,721)	(5,594,032)	370	7,878,356	(231,721)	0	109,285,012
16	2010	41	-	154,740	(3,073,470)	-	-	154,740	(3,073,470)	0	106,366,283
17	2011	40	-	76,476	(626,080)	-	8,958	85,434	(626,080)	0	105,825,637
18	2012	39	-	312,088	-	-	31,645	343,734	-	0	106,169,371
19	2013	38	-	1,461,396	(3,683,903)	-	348,692	1,810,088	(3,683,903)	0	104,295,556
20	2014	37	-	-	(3,616)	-	-	-	(3,616)	0	104,291,940
21	Total		\$ 12,678,547	\$ 99,258,224	\$ (8,034,497)	\$ (8,034,497)	\$ 389,666	\$ 112,326,437	\$ (8,034,497)	\$ -	\$ 1,498,045,708

22	Major Additions/Retirements										
23	2001		\$ 86,733,933								
24	2009		\$ 7,877,986								
25	2010			\$ (3,073,470)							
26	2013		\$ 1,810,088	\$ (3,683,903)							
27	Routine Activity (excluding Westar advances)		\$ 3,225,883	\$ (1,277,124)							
28	Historical Interim Activity		0.22%	-0.09%							
29	Forecast Interim Activity		0.00%	-0.09%							

											Major Additions**			
30	2015	36						224,582	(88,912)			104,427,610		
31	2016	35						-	(89,027)			104,338,583		
32	2017	34						-	(88,951)			104,249,631		
33	2018	33						-	(88,876)			104,160,756		
34	2019	32						-	(88,800)			104,071,956		
35	2020	31						-	(88,724)			103,983,232		
36	2021	30						-	(88,648)			103,894,583		
37	2022	29						-	(88,573)			103,806,010		
38	2023	28						-	(88,497)			103,717,513		
39	2024	27						-	(88,422)			103,629,091		
40	2025	26						-	(88,347)			103,540,745		
41	2026	25						-	(88,271)			103,452,473		
42	2027	24						-	(88,196)			103,364,277		
43	2028	23						-	(88,121)			103,276,156		
44	2029	22						-	(88,046)			103,188,111		
45	2030	21						-	(87,971)			103,100,140		
46	2031	20						-	(87,896)			103,012,245		
47	2032	19						-	(87,821)			102,924,424		
48	2033	18						-	(87,746)			102,836,678		
49	2034	17						-	(87,671)			102,749,007		
50	2035	16						-	(87,596)			102,661,411		
51	2036	15						-	(87,522)			102,573,889		
52	2037	14						-	(87,447)			102,486,442		
53	2038	13						-	(87,372)			102,399,070		
54	2039	12						-	(87,298)			102,311,772		
55	2040	11						-	(87,224)			102,224,548		
56	2041	10						-	(87,149)			102,137,399		
57	2042	9						-	(87,075)			102,050,324		
58	2043	8						-	(87,001)			101,963,324		
59	2044	7						-	(86,926)			101,876,397		
60	2045	6						-	(86,852)			101,789,545		
61	2046	5						-	(86,778)			101,702,766		
62	2047	4						-	(86,704)			101,616,062		
63	2048	3						-	(86,630)			101,529,432		
64	2049	2						-	(86,557)			101,442,875		
65	2050	1						-	(86,483)			101,356,392		
66	2051	0								(101,356,392)		-		
											\$ -	\$ 112,551,019	\$ (11,194,627)	\$ 5,201,890,578

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

The Empire District Electric Company	Gross Salvage	10%
	Cost of Removal	5%
Unit Property Depreciation Rate Analysis	Net Salvage	5%
Unit Property: Other Production, State Line Combined Cycle	Install Date	2001
	Retirement Date	2051
	Service Life, Yrs	50

Historical and Forecast Plant Additions & Balances
Account: 344 Generators

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106 Advance Additions	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements		Additions	Retirements		
			Balance	Additions	Retirements		Retirements			Additions	Retirements
1	1995	56	-	-	-	-	-	-	0	-	
2	1996	55	-	-	-	-	-	-	0	-	
3	1997	54	4,381,640	-	-	-	4,381,640	-	0	4,381,640	
4	1998	53	-	-	-	-	-	-	0	4,381,640	
5	1999	52	-	-	-	-	-	-	0	4,381,640	
6	2000	51	-	-	-	-	-	-	0	4,381,640	
7	2001	50	-	26,044,201	-	(10,886,535)	-	26,044,201	-	30,425,841	
8	2002	49	-	-	-	-	-	-	0	30,425,841	
9	2003	48	-	-	-	-	-	-	0	30,425,841	
10	2004	47	-	-	-	-	-	-	0	30,425,841	
11	2005	46	-	-	-	-	-	-	0	30,425,841	
12	2006	45	-	-	-	-	-	-	0	30,425,841	
13	2007	44	-	-	-	-	-	-	0	30,425,841	
14	2008	43	-	83,966	-	-	(0)	83,966	-	30,509,807	
15	2009	42	-	10,596,758	(8,467,351)	-	-	10,596,758	(8,467,351)	0	32,639,214
16	2010	41	-	-	(0)	-	-	-	(0)	0	32,639,214
17	2011	40	-	-	(2,419,184)	-	898,784	898,784	(2,419,184)	0	31,118,814
18	2012	39	-	-	-	-	131,939	131,939	-	0	31,250,753
19	2013	38	-	-	-	-	-	-	-	0	31,250,753
20	2014	37	-	-	-	-	-	-	-	0	31,250,753
21	Total		\$ 4,381,640	\$ 36,724,926	\$ (10,886,535)	\$ (10,886,535)	\$ 1,030,723	\$ 42,137,289	\$ (10,886,535)	\$ -	\$ 451,166,756

22 Major Additions/Retirements

23	2001		\$ 26,044,201							
24	2009		\$ 10,596,758	\$ (8,467,351)						
25	2011			\$ (2,419,184)						
26										
27	Routine Activity (excluding Westar advances)	\$ 1,114,689	\$ (0)							
28	Historical Interim Activity	0.25%	0.00%							
29	Forecast Interim Activity	0.00%	0.00%							

Major Additions**

30	2015	36						77,211	(0)		31,327,964
31	2016	35						-	(0)		31,327,964
32	2017	34					1,500,000	-	(0)		32,827,964
33	2018	33						-	(0)		32,827,964
34	2019	32					7,300,000	-	(0)		40,127,964
35	2020	31						-	(0)		40,127,964
36	2021	30						-	(0)		40,127,964
37	2022	29						-	(0)		40,127,964
38	2023	28						-	(0)		40,127,964
39	2024	27						-	(0)		40,127,964
40	2025	26						-	(0)		40,127,964
41	2026	25						-	(0)		40,127,964
42	2027	24						-	(0)		40,127,964
43	2028	23						-	(0)		40,127,964
44	2029	22						-	(0)		40,127,964
45	2030	21						-	(0)		40,127,964
46	2031	20						-	(0)		40,127,964
47	2032	19						-	(0)		40,127,964
48	2033	18						-	(0)		40,127,964
49	2034	17						-	(0)		40,127,964
50	2035	16						-	(0)		40,127,964
51	2036	15						-	(0)		40,127,964
52	2037	14						-	(0)		40,127,964
53	2038	13						-	(0)		40,127,964
54	2039	12						-	(0)		40,127,964
55	2040	11						-	(0)		40,127,964
56	2041	10						-	(0)		40,127,964
57	2042	9						-	(0)		40,127,964
58	2043	8						-	(0)		40,127,964
59	2044	7						-	(0)		40,127,964
60	2045	6						-	(0)		40,127,964
61	2046	5						-	(0)		40,127,964
62	2047	4						-	(0)		40,127,964
63	2048	3						-	(0)		40,127,964
64	2049	2						-	(0)		40,127,964
65	2050	1						-	(0)		40,127,964
66	2051	0								(40,127,964)	-
			\$ 8,800,000	\$ 42,214,499	\$ (10,886,535)						\$ 1,863,573,458

* Through vintage year 1999 the balances are 1999 remaining plant balances.

** From 2015 capital budget

The Empire District Electric Company	Gross Salvage	10%
	Cost of Removal	5%
Unit Property Depreciation Rate Analysis	Net Salvage	5%
Unit Property: Other Production, State Line Combined Cycle	Install Date	2001
	Retirement Date	2051
	Service Life, Yrs	50

Historical and Forecast Plant Additions & Balances
Account: 344 Generators

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	
Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year			Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements			
			Balance	Additions	Retirements	Retirements	Additions					

Historical Additions	42,137,289
Forecast Additions	8,877,211
Total Additions	51,014,499
Gross Salvage Value	4,012,796
Less Cost of Removal	2,006,398
Net Salvage Value	2,006,398
Total to be Recovered	49,008,101

Forecast Plant Balances 1,863,573,458

Whole Life Accrual Rate	2.63%
Cost of Removal Accrual Rate	0.11%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.52%

Depreciable Service Life, years 38.0

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	31,250,753
Forecast Additions	8,877,211
Gross Salvage Value	4,012,796
Less Cost of Removal	2,006,398
Net Salvage Value	2,006,398

Depreciation Reserve Balance 12/31/14 (4,569,953) **Garren Proposd**

Forecast Total Remaining Life Balance 33,551,613 **Annual Accrual**

Forecast Plant Balances 1,412,406,702 931,989

Remaining Life Accrual Rate 2.38% 2.98%

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, State Line Combined Cycle	Install Date	2001
	Retirement Date	2051
	Service Life, Yrs	50

Historical and Forecast Plant Additions & Balances
Account: 345 Accessory Electric Equipment

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Additions	Retirements		
			Balance	Additions	Retirements	Retirements	Additions				
1	1995	56	23,217	-	-	-	23,217	-	-	23,217	
2	1996	55	-	-	-	-	-	-	-	23,217	
3	1997	54	1,455,677	830,645	-	(405,250)	-	2,286,322	-	2,309,539	
4	1998	53	-	-	-	-	-	-	-	2,309,539	
5	1999	52	-	-	-	-	-	-	-	2,309,539	
6	2000	51	-	-	-	-	-	-	-	2,309,539	
7	2001	50	-	5,494,738	-	(1,022,444)	-	5,494,738	-	7,804,277	
8	2002	49	-	-	-	-	-	-	-	7,804,277	
9	2003	48	-	-	-	-	-	-	-	7,804,277	
10	2004	47	-	-	-	-	-	-	-	7,804,277	
11	2005	46	-	-	-	-	-	-	-	7,804,277	
12	2006	45	-	68,578	-	-	-	68,578	-	7,872,855	
13	2007	44	-	-	-	-	-	-	-	7,872,855	
14	2008	43	-	-	-	-	-	-	-	7,872,855	
15	2009	42	-	-	-	-	(1,487)	(1,487)	-	7,871,368	
16	2010	41	-	-	-	-	-	-	-	7,871,368	
17	2011	40	-	-	-	-	-	-	-	7,871,368	
18	2012	39	-	1,251,652	-	-	(4,191)	1,247,461	-	9,123,020	
19	2013	38	-	145,438	-	-	328,859	474,297	-	9,597,317	
20	2014	37	-	-	(1,427,693)	-	37,540	37,540	(1,427,693)	8,207,163	
21	Total		\$ 1,478,894	\$ 7,791,051	\$ (1,427,693)	\$ (1,427,693)	\$ 360,721	\$ 9,630,665	\$ (1,427,693)	\$ 4,191	\$ 122,466,142
22	Major Additions/Retirements										
23	2001			\$ 5,494,738							
24	2012			\$ 1,251,652							
25	2014					\$ (1,427,693)					
26											
27	Routine Activity (excluding Westar advances)			\$ 1,405,381	\$ -						
28	Historical Interim Activity			1.15%	0.00%						
29	Forecast Interim Activity			0.00%	0.00%						
							<u>Major Additions**</u>				
30	2015	36						94,183	-		8,301,346
31	2016	35						-	-		8,301,346
32	2017	34						-	-		8,301,346
33	2018	33						-	-		8,301,346
34	2019	32						-	-		8,301,346
35	2020	31						-	-		8,301,346
36	2021	30						-	-		8,301,346
37	2022	29						-	-		8,301,346
38	2023	28						-	-		8,301,346
39	2024	27						-	-		8,301,346
40	2025	26						-	-		8,301,346
41	2026	25						-	-		8,301,346
42	2027	24						-	-		8,301,346
43	2028	23						-	-		8,301,346
44	2029	22						-	-		8,301,346
45	2030	21						-	-		8,301,346
46	2031	20						-	-		8,301,346
47	2032	19						-	-		8,301,346
48	2033	18						-	-		8,301,346
49	2034	17						-	-		8,301,346
50	2035	16						-	-		8,301,346
51	2036	15						-	-		8,301,346
52	2037	14						-	-		8,301,346
53	2038	13						-	-		8,301,346
54	2039	12						-	-		8,301,346
55	2040	11						-	-		8,301,346
56	2041	10						-	-		8,301,346
57	2042	9						-	-		8,301,346
58	2043	8						-	-		8,301,346
59	2044	7						-	-		8,301,346
60	2045	6						-	-		8,301,346
61	2046	5						-	-		8,301,346
62	2047	4						-	-		8,301,346
63	2048	3						-	-		8,301,346
64	2049	2						-	-		8,301,346
65	2050	1						-	-		8,301,346
66	2051	0								(8,301,346)	-
							\$ -	\$ 9,724,848	\$ (1,427,693)		\$ 421,314,584

* Through vintage year 1999 the balances are 1999 remaining plant balances.
** From 2015 capital budget

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, State Line Combined Cycle	Install Date	2001
	Retirement Date	2051
	Service Life, Yrs	50

Historical and Forecast Plant Additions & Balances
Account: 345 Accessory Electric Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year Retirements	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Advance		Additions	Retirements			
			Balance	Additions	Retirements	Additions					

Whole Life Depreciation Rate Calculation

Historical Additions	9,630,665
Forecast Additions	94,183
Total Additions	9,724,848
Gross Salvage Value	664,108
Less Cost of Removal	830,135
Net Salvage Value	(166,027)
Total to be Recovered	9,890,875

Forecast Plant Balances 421,314,584

Whole Life Accrual Rate 2.35%

Cost of Removal Accrual Rate 0.20%

Whole Life Accrual Rate (Excluding Cost of Removal) 2.15%

Depreciable Service Life, years 42.6

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	8,207,163
Forecast Additions	94,183
Gross Salvage Value	664,108
Less Cost of Removal	830,135
Net Salvage Value	(166,027)

Depreciation Reserve Balance 12/31/14 (2,561,645)

Garren Proposd Annual Accrual

Forecast Total Remaining Life Balance 5,905,727

164,048

Forecast Plant Balances 298,848,442

Remaining Life Accrual Rate 1.98%

2.00%

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, State Line Combined Cycle	Install Date	2001
	Retirement Date	2051
	Service Life, Yrs	50

Historical and Forecast Plant Additions & Balances
Account: 346 Misc Power Equipment

Line	Vintage Year	Vintage Age	Reported Per Books				Account 106 Advance Additions	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements		Additions	Retirements		
			Balance	Additions	Retirements						
1	1995	56	61,635	-	-	-	61,635	-	0	61,635	
2	1996	55	19,381	-	-	-	19,381	-	0	81,016	
3	1997	54	5,673	-	-	-	5,673	-	0	86,689	
4	1998	53	-	-	-	-	-	-	0	86,689	
5	1999	52	-	-	-	-	-	-	0	86,689	
6	2000	51	-	-	-	-	-	-	0	86,689	
7	2001	50	-	2,703,091	-	-	-	2,703,091	-	2,789,780	
8	2002	49	-	6,360	-	-	-	6,360	-	2,796,140	
9	2003	48	-	13,837	-	-	-	13,837	-	2,809,977	
10	2004	47	-	(14,046)	-	-	-	(14,046)	-	2,795,931	
11	2005	46	-	(19,284)	-	-	(9,375)	(28,659)	-	2,767,273	
12	2006	45	-	(9,464)	-	-	-	(9,464)	-	2,757,809	
13	2007	44	-	23,848	-	-	(31,987)	(8,139)	-	2,749,670	
14	2008	43	-	43,665	-	-	41,362	85,027	-	2,834,697	
15	2009	42	-	31,258	-	-	(48,718)	(17,461)	-	2,817,236	
16	2010	41	-	964	-	-	-	964	-	2,818,201	
17	2011	40	-	3,726	-	-	-	3,726	-	2,821,926	
18	2012	39	-	9,181	-	-	-	9,181	-	2,831,107	
19	2013	38	-	-	-	-	32,013	32,013	-	2,863,120	
20	2014	37	-	-	-	-	47,838	47,838	-	2,910,958	
21	Total		\$ 86,689	\$ 2,793,137	\$ -	\$ -	\$ 31,133	\$ 2,910,958	\$ -	\$ -	\$ 39,853,233

22 Major Additions/Retirements

23	2001	\$ 2,703,091	
24			
25			
26			
27	Routine Activity (excluding Westar advances)	\$ 121,178	\$ -
28	Historical Interim Activity	0.00%	0.00%
29	Forecast Interim Activity	0.00%	0.00%

Major Additions**

30	2015	36	-	-	2,910,958	
31	2016	35	-	-	2,910,958	
32	2017	34	-	-	2,910,958	
33	2018	33	-	-	2,910,958	
34	2019	32	-	-	2,910,958	
35	2020	31	-	-	2,910,958	
36	2021	30	-	-	2,910,958	
37	2022	29	-	-	2,910,958	
38	2023	28	-	-	2,910,958	
39	2024	27	-	-	2,910,958	
40	2025	26	-	-	2,910,958	
41	2026	25	-	-	2,910,958	
42	2027	24	-	-	2,910,958	
43	2028	23	-	-	2,910,958	
44	2029	22	-	-	2,910,958	
45	2030	21	-	-	2,910,958	
46	2031	20	-	-	2,910,958	
47	2032	19	-	-	2,910,958	
48	2033	18	-	-	2,910,958	
49	2034	17	-	-	2,910,958	
50	2035	16	-	-	2,910,958	
51	2036	15	-	-	2,910,958	
52	2037	14	-	-	2,910,958	
53	2038	13	-	-	2,910,958	
54	2039	12	-	-	2,910,958	
55	2040	11	-	-	2,910,958	
56	2041	10	-	-	2,910,958	
57	2042	9	-	-	2,910,958	
58	2043	8	-	-	2,910,958	
59	2044	7	-	-	2,910,958	
60	2045	6	-	-	2,910,958	
61	2046	5	-	-	2,910,958	
62	2047	4	-	-	2,910,958	
63	2048	3	-	-	2,910,958	
64	2049	2	-	-	2,910,958	
65	2050	1	-	-	2,910,958	
66	2051	0	-	-	2,910,958	
					(2,910,958)	-
			\$ -	\$ 2,910,958	\$ -	\$ 144,647,733

* Through vintage year 1999 the balances are 1999 remaining plant balances.
** From 2015 capital budget

The Empire District Electric Company	Gross Salvage	8%
	Cost of Removal	10%
Unit Property Depreciation Rate Analysis	Net Salvage	-2%
Unit Property: Other Production, State Line Combined Cycle	Install Date	2001
	Retirement Date	2051
	Service Life, Yrs	50

Historical and Forecast Plant Additions & Balances

Account: 346 Misc Power Equipment

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year Retirements	Account 106	Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Advance		Additions	Retirements			
			Balance	Additions	Retirements	Additions					

Whole Life Depreciation Rate Calculation

Historical Additions	2,910,958
Forecast Additions	-
Total Additions	2,910,958
Gross Salvage Value	232,877
Less Cost of Removal	<u>291,096</u>
Net Salvage Value	(58,219)
Total to be Recovered	2,969,178

Forecast Plant Balances 144,647,733

Whole Life Accrual Rate 2.05%

Cost of Removal Accrual Rate 0.20%

Whole Life Accrual Rate (Excluding Cost of Removal) 1.85%

Depreciable Service Life, years 48.7

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/14	2,910,958
Forecast Additions	-
Gross Salvage Value	232,877
Less Cost of Removal	<u>291,096</u>
Net Salvage Value	(58,219)

Depreciation Reserve Balance 12/31/14 (586,771)

Garren Proposd Annual Accrual

Forecast Total Remaining Life Balance 2,382,407 66,178

Forecast Plant Balances 104,794,500

Remaining Life Accrual Rate 2.27% 2.27%

CERTIFICATE OF SERVICE

19-EPDE-223-RTS

I, the undersigned, hereby certify that a true and correct copy of the above and foregoing document was served by electronic service on this 13th day of May, 2019, to the following:

JAMES G. FLAHERTY, ATTORNEY
ANDERSON & BYRD, L.L.P.
216 S HICKORY
PO BOX 17
OTTAWA, KS 66067
jflaherty@andersonbyrd.com

JILL SCHWARTZ, SR. MGR, RATES &
REGULATORY AFFAIRS
EMPIRE DISTRICT ELECTRIC COMPANY
602 S JOPLIN AVE
JOPLIN, MO 64801
Jill.Schwartz@libertyutilities.com

COLE BAILEY, LITIGATION COUNSEL
KANSAS CORPORATION COMMISSION
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
c.bailey@kcc.ks.gov

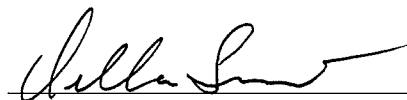
BRIAN G. FEDOTIN, DEPUTY GENERAL
COUNSEL
KANSAS CORPORATION COMMISSION
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
b.fedotin@kcc.ks.gov

ROBERT VINCENT, LITIGATION COUNSEL
KANSAS CORPORATION COMMISSION
1500 SW ARROWHEAD RD
TOPEKA, KS 66604
r.vincent@kcc.ks.gov

SARAH B. KNOWLTON, GENERAL
COUNSEL
LIBERTY UTILITIES CORP
116 North Main Street
Concord, NH 03301
sarah.knowlton@libertyutilities.com

JANET BUCHANAN, DIRECTOR-
REGULATORY AFFAIRS
KANSAS GAS SERVICE, A DIVISION OF
ONE GAS, INC.
7421 W 129TH ST
OVERLAND PARK, KS 66213-2713
janet.buchanan@onegas.com

JUDY JENKINS HITCHY, MANAGING
ATTORNEY
KANSAS GAS SERVICE, A DIVISION OF
ONE GAS, INC.
7421 W 129TH ST
OVERLAND PARK, KS 66213-2713
judy.jenkins@onegas.com



Della Smith
Senior Administrative Specialist