

**BUILDING A WORLD OF DIFFERENCE®**



THE EMPIRE DISTRICT ELECTRIC COMPANY

**Report on  
Depreciation Accrual Rates**

**Electric utility property  
through December 31, 2009**

September 2010



September 1, 2010

Ms. Laurie Delano  
Controller, Assistant Secretary & Assistant Treasurer  
The Empire District Electric Company  
602 S. Joplin Avenue  
Joplin, MO 64801

Dear Ms. Delano:

We are enclosing our Report on Depreciation Accrual Rates for the electric utility property of The Empire District Electric Company ("EDE"). The findings, conclusions, and recommendations that we present in the report are representative of plant activity through December 31, 2009. In the report, we have provided discussions relative to depreciation accounting, the processes utilized and historical information relied upon, the determination of appropriate depreciation expense rates, as well as a review of the adequacy of current depreciation reserves. The Executive Summary of the report summarizes our major findings and recommendations.

We appreciate the opportunity to be of service in this matter and wish to thank EDE and their staff for their cooperation and assistance provided in the completion of the report.

Very Truly Yours,

BLACK & VEATCH CORPORATION

Thomas J Sullivan  
Managing Director,  
Black & Veatch Management Consulting

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**DISCLAIMER**

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THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Subject to the limitations set forth herein, this report was prepared for EDE by Black & Veatch Corporation (“B&V”) and is based on information not within the control of B&V. B&V has not been requested to make an independent analysis, to verify the information provided to us, or to render an independent judgment of the validity of the information provided by others. As such, B&V cannot, and does not, guarantee the accuracy thereof to the extent that such information, data, or opinions are based on information provided by others.

**EXECUTIVE SUMMARY**THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY**1.0 EXECUTIVE SUMMARY**

This report describes the analyses conducted and the results obtained for the depreciation expense rates and accumulated provision for depreciation of the electric utility property of The Empire District Electric Company (“EDE” or “Company”). This report is based on plant activity through December 31, 2009, with recognition given to known or planned changes since that date. We consider the rates developed and recommended herein to be reasonable and appropriate for prospective use. We recommend, however, that depreciation rates be reviewed at a minimum of once every five years. Current EDE depreciation rates are based on a Stipulation and Agreement ordered in Missouri Public Service Commission (“MoPSC”) Case No. ER-2004-0570.

Plant in service and accumulated depreciation as of December 31, 2009 for the classes of plant are summarized below:

**Table 1-1  
Plant in Service and Accumulated Reserve  
As of December 31, 2009**

[A]	[B]	[C]	
Line	Description	Plant in Service	Accumulated Reserve
		\$	\$
1	Production Plant	686,779,828	195,152,025
2	Transmission Plant	203,435,387	69,478,122
3	Distribution Plant	651,556,418	258,003,121
4	General Plant	60,805,815	36,263,265
5	Total Plant in Service at 12/31/09	1,602,577,449	558,896,532

We base our recommended depreciation accrual rates on application of the whole life depreciation method. This method is premised on recovery of plant investment in generally equal amounts over the average service life of plant facilities. This method recognizes changes that have occurred or are occurring, with respect to changes in investment level and life characteristics of individual property units.

For unit property, specifically production plant, we develop whole life depreciation expense rates based on the prospective life span (retirement date) of each generating unit. The prospective retirement dates we use in this report were provided by EDE and are consistent with the Company’s integrated resource planning. Consistent with the life span concept and the prospective retirement date used, we include allowance for interim additions and retirements of individual pieces of property, as well as an adjustment for net salvage (gross salvage less cost of removal). The whole life rates and the resulting change in depreciation expense for unit property accounts are summarized in Table 1-2 and shown in detail in Table 5-1. It should be noted that the whole life rates are recommended because the MoPSC has shown recent preference to this method.

For mass property, specifically transmission, distribution, and general plant, the basis for our recommended accrual rates begins with the development of appropriate average service lives (ASL) and Iowa curves for each plant account using the actuarial analysis method. After developing our recommended ASL and Iowa curve, we adjust for net salvage to develop a whole life depreciation rate. Recommended depreciation rates for unit and mass property are summarized by function in Table 1-2 below and presented in detail in Table 1-3 at the end of this Executive Summary.

**EXECUTIVE SUMMARY**THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY**Table 1-2**  
**Recommended Changes in Depreciation Rates and Expense**

	[A]	[B]	[C]	[D]
Line	Description	Current Composite Accrual Rate	Composite Recommended Accrual Rate	Change in Depreciation Expense
1	Production Plant	2.15%	2.99%	\$ 5,729,164
2	Transmission Plant	2.41%	2.24%	\$ (343,392)
3	Distribution Plant	3.63%	3.26%	\$ (2,382,578)
4	General Plant	5.88%	5.75%	\$ (74,112)
5	Total with Plant in Service at 12/31/09	2.93%	3.11%	\$ 2,929,083

As shown in Table 1-2, application of the recommended whole life depreciation rates results in \$2.9 million increase in annual depreciation expense when applied to total depreciable assets as of December 31, 2009. The overall increase in depreciation expense is primarily attributable to a change from mass property treatment to the appropriate lifespan treatment of production plant property. This increase is partially offset by a reduction in depreciation expense due to a general trend of longer service lives for transmission, distribution and general plant accounts, as well as a decrease in negative net salvage requirement. In total, with plant in service balances as of December 31, 2009, our recommended composite depreciation rate is 3.11%, increased from the existing composite depreciation rate of 2.93%.

We further recommend establishing depreciation rates for Iatan 2 and Plum Point at 2.10%. This rate should be used for all accounts at the time these facilities are commercially in service.

The scope of this report includes:

1. A discussion of the practice of depreciation accounting (Section 3).
2. The types of information examined in our analysis and the methods applied (Section 4).
3. The results of the analyses conducted pertaining to the production plant (Section 5).
4. The results of the mass property analyses conducted of EDE's transmission, distribution, and general plant (Section 6).
5. The recommended depreciation rates (Section 7).

**EXECUTIVE SUMMARY**THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY**Table 1-3  
Recommended Depreciation Rates**

Line	[A] FERC Acct	[B] Description	[C] Current Depreciation Rate	[D] Recommended Depreciation Rate	[E] Change in Depreciation Expense
1		Production Plant			
2		Steam Production Plant			
3	310	Land and Land Rights			
4	311-316	Asbury	1.75%	4.57%	4,228,413
5	311-316	Riverton	1.62%	3.18%	717,865
6	311-316	Iatan 1	1.84%	3.12%	1,705,081
7	311-316	Iatan 2		2.10%	-
8	311-316	Plum Point		2.10%	-
9		Total Steam Production	1.77%	3.79%	6,651,359
10		Hydro Production Plant			
11	310	Land and Land Rights			
12	331-335	Ozark Beach	1.62%	2.13%	28,092
13		Total Hydro Production	1.62%	2.13%	28,092
14		Other Production Plant			
15	340	Land and Land Rights			
16	341-346	State Line Combined Cycle	2.86%	2.14%	(1,165,471)
17	341-346	State Line CT	2.22%	3.25%	442,922
18	341-346	Energy Center Unit 1&2	2.15%	2.28%	51,203
19	341-347	Energy Center Unit 3&4 (FT8)	2.11%	1.97%	(76,446)
20	341-348	Riverton CT	2.37%	1.97%	(202,496)
21		Total Other Production	2.51%	2.24%	(950,288)
22		Total Production Plant	2.15%	2.99%	5,729,164
23		Transmission Plant			
24	350	Land and Land Rights			
25	352	Structures and Improvements	2.09%	1.82%	(7,807)
26	353	Station Equipment	2.20%	2.17%	(26,868)
27	354	Towers and Fixtures	1.92%	1.54%	(3,038)
28	355	Poles and Fixtures	3.33%	2.36%	(385,563)
29	356	Overhead Conductors and Devices	2.15%	2.28%	79,885
30	359	Roads and Trails	0.00%	0.00%	-
31		Total Transmission Plant	2.41%	2.24%	(343,392)
32		Distribution Plant			
33	360	Land and Land Rights			
34	361	Structures and Improvements	2.08%	1.56%	(50,733)
35	362	Station Equipment	1.89%	2.25%	262,837
36	364	Poles, Towers and Fixtures	4.35%	4.35%	-
37	365	Overhead Conductors and Devices	3.77%	3.39%	(553,602)
38	366	Underground Conduit	3.92%	2.22%	(485,612)
39	367	Underground Conductors and Devices	3.59%	2.38%	(636,399)
40	368	Line Transformers	2.78%	2.06%	(639,109)
41	369	Services	5.00%	4.65%	(228,969)
42	370	Meters	2.27%	2.42%	27,468
43	371	Installations on Customer Premises	5.80%	5.07%	(114,507)
44	373	Street Lighting and Signal Systems	3.13%	3.38%	36,047
45		Total Distribution Plant	3.63%	3.26%	(2,382,578)
46		General Plant			
47	389	Land and Land Rights			
48	390	Structures and Improvements	2.75%	3.57%	77,811
49	391.1	Office Furniture and Equipment	5.00%	5.00%	-
50	391.2	Computer Equipment	10.00%	9.00%	(114,631)
51	392	Transportation Equipment	7.08%	7.54%	36,555
52	393	Stores Equipment	3.17%	2.50%	(2,982)
53	394	Tools, Shop and Garage Equipment	4.50%	5.00%	19,118
54	395	Laboratory Equipment	2.63%	2.09%	(5,113)
55	396	Power Operated Equipment	6.33%	5.88%	(51,868)
56	397	Communication Equipment	4.00%	3.70%	(30,325)
57	398	Miscellaneous Equipment	4.55%	3.13%	(2,677)
58		Total General Plant	5.88%	5.75%	(74,112)
		Total Plant in Service @ 12/31/09	2.93%	3.11%	2,929,083

## INTRODUCTION

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THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

### 2.0 INTRODUCTION

In this report, we present the results of our analysis of the depreciation expense requirements for the electric utility property of EDE. We primarily base our analysis on plant activity through December 31, 2009. Implications of certain known and measurable changes that have occurred or are anticipated to occur subsequent to December 31, 2009 are incorporated in our analyses as appropriate.

Currently, EDE accrues depreciation expense and accumulates reserve by Federal Energy Regulatory Commission (FERC) account. EDE records accruals for recovery of original cost (life portion) separately from recovery of cost of removal less gross salvage (net salvage portion). Within the production function, EDE separately accumulates reserve and calculates depreciation expense for each generating facility. In this report, annual depreciation accrual rates are calculated by individual FERC account and for each generating facility using the whole life method.

In Section 3.0, we briefly discuss the practice of depreciation accounting. In Section 4.0, we discuss the type of information examined in our analysis and the methods applied in analyzing the information. The results of the analyses performed are discussed in Sections 5.0 and 6.0. These discussions include a determination of depreciation accrual rates for unit property accounts (Section 5.0), whole life depreciation accrual rates for mass property accounts (Section 6.1), and our analysis of the adequacy of current depreciation reserve amounts (Section 6.2).

#### **2.1 Existing Plant in Service and Depreciation Rates**

In Table 2-1 we show the plant in service and existing depreciation rates for production, transmission, distribution, and general plant. In Column D of Table 2-1, we show that EDE has an accumulated depreciation reserve of \$559 million as of December 31, 2009. The depreciation reserve accumulated for production plant is \$195 million. EDE reports depreciation reserve of \$364 million for transmission, distribution, and general plant as of December 31, 2009 (Table 2-1, Column D).

To the extent that the depreciation accrual rates recommended in this report are different from the rates currently used, the change results generally from one or more of the following factors:

- Additional information regarding the history of the plant account (retirement history).
- Changes in life characteristics due to changes in equipment and/or manufacturing methods included in the plant.
- Changes in the anticipated retirement date of production plants.
- Changes in estimated salvage and cost of removal.
- Changing unit property depreciation rates to life span versus mass property treatment.



## INTRODUCTION

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

**Table 2-1**  
**Depreciable Plant in Service, Depreciation Reserve, and Existing Rates**

Line	[A] Description	[B] FERC Acct	[C] Plant in Service At 12/31/2009	[D] Depreciation Reserve At 12/31/2009	[E] Existing Depreciation Rate
1	Production Plant				
2	Steam Production Plant				
3	Land and Land Rights	310	939,473		
4	Asbury	311-316	149,946,466	40,318,934	1.75%
5	Riverton	311-316	46,083,525	28,774,554	1.62%
6	Iatan 1	311-316	133,285,135	36,078,829	1.84%
7	Iatan 2	311-316			
8	Plum Point	311-316			
9	Total Steam Production		330,254,599	105,172,317	
10	Hydro Production Plant				
11	Land and Land Rights	330	226,487.71		
12	Ozark Beach	331-335	5,509,271	2,486,302	1.62%
13	Total Hydro Production		5,735,759	2,486,302	
14	Other Production Plant				
15	Land and Land Rights	340	1,025,253		
16	State Line Combined Cycle	341-346	162,639,173	28,081,610	2.86%
17	State Line CT	341-346	42,673,128	17,852,776	2.22%
18	Energy Center Unit 1&2	341-346	39,234,417	29,086,085	2.15%
19	Energy Center Unit 3&4 (FT8)	341-347	54,061,994	2,712,381	2.11%
20	Riverton CT	341-348	51,155,505	9,760,554	2.37%
21	Total Other Production		350,789,470	87,493,405	
22	Total Production Plant		686,779,828	195,152,025	
23	Transmission Plant				
24	Land and Land Rights	350	8,985,871		
25	Structures and Improvements	352	2,891,646	1,116,705	2.09%
26	Station Equipment	353	89,559,756	33,370,653	2.20%
27	Towers and Fixtures	354	799,508	772,934	1.92%
28	Poles and Fixtures	355	39,748,752	15,828,439	3.33%
29	Overhead Conductors and Devices	356	61,449,854	18,389,391	2.15%
30	Roads and Trails	359	-	-	
31	Total Transmission Plant		203,435,387	69,478,122	
32	Distribution Plant				
33	Land and Land Rights	360	2,360,393		
34	Structures and Improvements	361	9,756,326	3,743,037	2.08%
35	Station Equipment	362	73,010,259	27,212,036	1.89%
36	Poles, Towers and Fixtures	364	136,982,762	62,395,624	4.35%
37	Overhead Conductors and Devices	365	145,684,661	51,546,185	3.77%
38	Underground Conduit	366	28,565,405	9,335,602	3.92%
39	Underground Conductors and Devices	367	52,594,929	19,089,710	3.59%
40	Line Transformers	368	88,765,104	30,719,356	2.78%
41	Services	369	65,419,731	33,344,987	5.00%
42	Meters	370	18,312,044	6,232,010	2.27%
43	Installations on Customer Premises	371	15,685,879	9,252,140	5.80%
44	Street Lighting and Signal Systems	373	14,418,926	5,132,435	3.13%
45	Total Distribution Plant		651,556,418	258,003,121	
46	General Plant				
47	Land and Land Rights	389	679,466		
48	Structures and Improvements	390	9,489,178	5,944,294	2.75%
49	Office Furniture and Equipment	391.1	4,188,701	2,258,842	5.00%
50	Computer Equipment	391.2	11,463,123	5,765,537	10.00%
51	Transportation Equipment	392	7,946,771	6,776,560	7.08%
52	Stores Equipment	393	445,006	293,685	3.17%
53	Tools, Shop and Garage Equipment	394	3,823,571	2,246,913	4.50%
54	Laboratory Equipment	395	946,905	690,181	2.63%
55	Power Operated Equipment	396	11,526,119	7,229,509	6.33%
56	Communication Equipment	397	10,108,470	4,930,474	4.00%
57	Miscellaneous Equipment	398	188,505	127,270	4.55%
58	Total General Plant		60,805,815	36,263,265	
59	Total Plant in Service @ 12/31/09		1,602,577,449	558,896,532	

## DEPRECIATION ACCOUNTING

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THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

### 3.0 DEPRECIATION ACCOUNTING

The FERC Uniform System of Accounts defines depreciation as:

“The loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of electric plant in the course of service from causes that are known to be in current operation and against which the system is not protected by insurance. Among the causes considered are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and requirements of public authorities.”

Depreciation accounting provides a method whereby charges for the loss in service value are made against current income derived from operating the system. By properly charging depreciation, the total cost of utility property is appropriately distributed over the useful life in such a way as to equitably allocate cost to the period during which service is provided through the use and consumption of such property. For the purpose of this report, we use the term “total cost” to mean the original investment cost (gross plant), less salvage value (if any), plus cost of removal (if any).

#### 3.1 Annual Depreciation Expense

Annual depreciation expense represents the annual charge against income associated with the loss of service value of utility property. Historically, utilities have relied on a number of methods to identify the appropriate level of depreciation expense. Some of these methods include:

- A direct apportionment by management;
- A percentage of revenues;
- An amount equal to the original cost investment retired during the year;
- A charge per unit of delivery (kWh, kW, etc.); and
- A percentage of the investment in depreciable property.

#### 3.2 Depreciation Reserve

Depreciation reserve is a balance sheet item that reflects the accumulation of annual depreciation activities and associated retirement accounting. Under the FERC System of Accounts, depreciation reserve is shown on the balance sheet as “Accumulated Provision for Depreciation.”

The depreciation expense charged against income is credited to (accumulated in) depreciation reserve. For utility properties, FERC provides that upon retirement of an asset, the utility reduces (debits) depreciation reserve by the original cost of the asset retired, increases (credits) reserve by any benefits derived from the sale of assets removed (salvage), and reduces (debits) reserve by the costs attributable to removal. As such, the use of appropriate depreciation rates corresponding to the service life of utility properties will result in accruals to the depreciation reserve which equal the total investment ultimately retired, as adjusted for salvage and cost of removal.

For the purpose of this report, we have included consideration of net salvage (gross salvage less cost of removal) where appropriate. More specifically, for the depreciation rates recommended for unit and mass property accounts, we have provided allowance for net salvage based on industry trends and our experience with similar property. For the mass property accounts, we have also used as a reference, the historical salvage, cost of removal and retirement experience of EDE.

## HISTORICAL INFORMATION

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THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

### 4.0 HISTORICAL INFORMATION

Depreciation expense rates are intended to recover the net investment (total cost) in utility property over its useful life. In this regard, depreciation rates typically consist of three components. These components, which are further defined below, include: (i) service life of the property; (ii) total cost to be recovered; and (iii) reserve deficiency.

Normally, the determination of average service life is largely dependent on analyses of detailed utility records. Such records generally provide information regarding additions and retirements by transaction year (year added or retired) and vintage (year originally installed) for each account. We adjust average service life based on historical experience to reflect expectations over the remaining service life based on our experience, judgment, and those conditions anticipated to occur.

We develop average service lives by account. We first separate accounts into two groups: mass property and unit property. Mass property represents relatively homogeneous property units that tend to be retired individually. Meters, conduit, conductor, services, and line transformers are examples of mass property. Conversely, unit property represents a more heterogeneous property group, which by the nature of their interconnected or integrated operations, tends (in large part) to be retired simultaneously, as a group. We normally consider power generation facilities for electric utilities as unit property. Generally, utilities maintain detailed unit property data by physical location. Utilities typically maintain mass property data on an aggregate level. For unit property accounts, we typically define service life based on planned retirement dates.<sup>1</sup>

For unit property, we normally develop a history of investment activity by account for each location or site. This life history reflects gross additions, retirements, surviving property, and account balances. Based on the estimated life (planned retirement date) for each unit property (generating station), we typically forecast plant investment activity (interim additions, retirements, and account balances) at the account level for each year that units within such an account are forecast to remain in service. We then calculate a whole life, straight line depreciation accrual rate by dividing the investment to be recovered (original investment, plus interim additions, plus cost of removal, less gross salvage) by the sum of the forecast annual depreciable balances over the full lifespan of the unit property accounts.

For mass property, we initially define service lives and Iowa curves by account based on actuarial analysis (retirement or survivor curve analysis) or semi-actuarial analysis (simulated plant balance). These analyses rely on historical plant activity (retirements). Specifically, using a least squares technique, actual survivor stub curves representing the percent of original placements surviving at various ages are developed. We compare these stub curves to general survivor curves to identify the average service life which best fits historical experience. By comparing the results produced with results using other curve shapes, we determine the curve shape and average service life which best predicts historical experience. We use the average service life we developed as a principal determinant of the reasonable average service life applicable to each account. In addition to our analysis of historical experience, we consider our experience in the industry, practices of other utilities, and basic information regarding expected life characteristics of the property. Results derived from the application of these methodologies are then evaluated in connection with other available information such as: (i) past, present and anticipated economic conditions; (ii) recent industry trends; and (iii) engineering experience and judgment.

We further discuss these techniques, including a summary of the information required and the information provided by EDE in the following.

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<sup>1</sup> EDE provided estimated retirement dates for each production unit.

## HISTORICAL INFORMATION

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THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

### **4.1 Empire District Electric Data**

The property records of EDE are kept in accordance with the Uniform System of Accounts as prescribed by the FERC. We rely on these records as the basis for the information used for our analysis. In 1999 EDE converted their property accounting system to PeopleSoft. During the transition to the PeopleSoft system, only vintage balances were brought forward. As a result, aged data history (additions and retirements by vintage) was not retained in the PeopleSoft system. EDE was able to build back the aged data for their continuing property record (CPR) by appending the transactions from the CPR used in prior studies to the transactions and balances contained in the PeopleSoft system. This new CPR was relied upon for the purpose of this study.

#### **4.1.1 Mass Property Data**

The investment in mass property accounts (transmission, distribution and general plant) is maintained within PeopleSoft as well as all transactions since 1999. EDE's CPR is maintained outside of PeopleSoft as the property accounting data contained in PeopleSoft does not have aged data detail prior to 1999. Using the Company's CPR, we are able to perform actuarial studies as a basis to determine the experienced mortality characteristics for each FERC account.

EDE maintains salvage history since 1988, reported by account by transaction year. EDE has transaction and vintage retirement salvage data from 1999 forward. Salvage and cost of removal (COR) data by account for the transaction years 2000 through 2009 were used to develop reasonable gross salvage, COR and net salvage allowances for the mass property accounts.

#### **4.1.2 Planned Retirements (Unit Property Accounts)**

For EDE's unit property, EDE provided the data needed to develop an investment history. A life history of net additions prior to 1999 and gross additions, retirements, surviving property, and account balances by year since 1999 was provided for the analysis. Based on the estimated retirement date that EDE provided for the various units, we forecast plant investment activity (interim additions, retirements, and plant balances) for each year that we expect the property to remain in service. In the event that other reasonably anticipated planned additions and retirements are required in order for the property to reach the retirement date, we consider implications of such additions and retirements as well.

Based on the data described above, we calculate whole life, straight line depreciation accrual rates by dividing the investment to be recovered (original investment, plus interim additions, plus cost of removal, less gross salvage) by the sum of the forecast annual depreciable balances over the full lifespan of the unit property accounts. Forecast annual depreciable balances are based on the existing plant balances reported at December 31, 2009 plus forecast additions and retirements as adjusted for net salvage. Our recommended depreciation rates for unit property accounts are discussed in Section 5.0.

To accurately determine the composite depreciation accrual rate for the generating units, it is important to understand the retirement date and investment in each generating unit. EDE maintains historical data that includes additions, retirements, transfers, and net salvage by FERC account. This data provides sufficient information to evaluate interim additions, retirements, and salvage on an aggregate level for the steam, hydraulic and other production accounts for the period ending December 31, 2009. We supplement this information with EDE's Continuing Property Record data as a means to identify additions and retirements specific to generating units to determine approximate investment by generating unit.

## UNIT PROPERTY ANALYSIS

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THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

### 5.0 UNIT PROPERTY ANALYSIS

Table 5-1 summarizes the recommended whole life depreciation rates for EDE's generating stations. We also show plant investment as of December 31, 2009, existing depreciation accrual rates, and the resulting change in annual depreciation expense by generating unit. The whole life accrual rate is defined as the rate which, when applied to the annual depreciable balances, will result in recovery of the original cost of gross additions over the entire life of the property. Adjustments to the whole life rates are made to reflect estimated salvage value and cost of removal. We also show the remaining life depreciation rates in Table 5-1. With the remaining life method, undepreciated investment plus forecast additions, cost of removal and salvage is recovered over the remaining life (of depreciable plant balances) of the property.

The annual accrual rates we develop will fully recover EDE's investment, including consideration of the impact of terminal net salvage. The principal forecasts, for which assumptions are made, that we rely on in the analyses include:

- The retirement date (life span) of the individual facilities.
- The level of interim additions and retirements.
- The level of major plant additions, upgrades, and improvements required for the individual units to reach the planned retirement date.
- The net salvage values associated with interim and final retirements.

We analyzed the investment history by account for steam production, hydraulic production and other production plant through December 31, 2009. The life history reflects gross additions, retirements, surviving property and account balances. Based on the planned retirement date, we forecast plant investment activity (interim additions, retirements, and balances) for each year that we forecast the generating plant will remain in service. EDE provided us the data regarding the life span of unit property.

We calculate a whole life, straight line depreciation accrual rate by dividing the gross investment (plant investment as of December 31, 2009 plus forecast interim additions less net salvage and accumulated depreciation) by the sum of the annual depreciable plant balances over the full lifespan of the unit. Annual depreciable balances are based on plant balances as of December 31, 2009 plus forecast additions and retirements. Our recommended whole life depreciation rate calculations are shown in the Appendix and are summarized in Table 5-1. For the total existing production plant, the composite proposed whole life rate is 2.99 percent and the change in annual depreciation expense based on depreciable plant in service as of December 31, 2009 is an increase of about \$5.7 million as shown in Table 5-1.

# UNIT PROPERTY ANALYSIS

THE EMPIRE DISTRICT ELECTRIC COMPANY  
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**Table 5-1**  
**Unit Property Analysis**

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	
Line	FERC Account	Plant in Service at 12/31/2009	Existing Accrual Rate	Whole Life Accrual Rate	Life Rate	Salvage Rate	COR Rate	Remaining Life Rate	Change in Depreciation Expense	
	Description			[F]-[G]-[H]					((E)-[D])*[C]	
<b>Asbury</b>										
1	311	Structure & Improvements	13,777,707	1.06%	2.79%	2.68%	0.11%	-0.22%	238,354	
2	312	Boiler Plant Equipment	105,624,742	1.87%	5.26%	5.03%	0.23%	-0.46%	3,580,679	
3	314	Turbo Generator Equipment	22,407,291	1.60%	2.82%	2.70%	0.13%	-0.26%	273,369	
4	315	Accessory Electric Equipment	6,025,504	1.79%	3.35%	3.14%	0.21%	-0.42%	93,998	
5	316	Misc Power Equipment	2,111,222	1.95%	3.94%	3.76%	0.18%	-0.36%	42,013	
6	311-316	Total Asbury	149,946,466	<b>1.75%</b>	<b>4.57%</b>	<b>4.37%</b>	<b>0.20%</b>	<b>-0.40%</b>	<b>5.93%</b>	4,228,413
<b>Riverton</b>										
7	311	Structure & Improvements	11,401,579	1.05%	3.67%	3.51%	0.16%	-0.33%	298,721	
8	312	Boiler Plant Equipment	23,866,301	1.86%	3.08%	2.94%	0.14%	-0.28%	291,169	
9	314	Turbo Generator Equipment	7,130,957	1.59%	2.39%	2.28%	0.11%	-0.22%	57,048	
10	315	Accessory Electric Equipment	1,570,338	1.79%	1.85%	1.75%	0.10%	-0.20%	942	
11	316	Misc Power Equipment	2,114,351	1.96%	5.27%	5.02%	0.25%	-0.50%	69,985	
12	311-316	Total Riverton	46,083,525	<b>1.62%</b>	<b>3.18%</b>	<b>3.03%</b>	<b>0.14%</b>	<b>-0.29%</b>	<b>6.01%</b>	717,865
<b>Iatan 1</b>										
13	311	Structure & Improvements	4,192,135	1.06%	2.08%	1.99%	0.10%	-0.19%	42,760	
14	312	Boiler Plant Equipment	111,979,462	1.89%	3.16%	3.02%	0.14%	-0.28%	1,422,139	
15	314	Turbo Generator Equipment	9,352,356	1.62%	2.42%	2.32%	0.11%	-0.21%	74,819	
16	315	Accessory Electric Equipment	6,786,095	1.81%	4.06%	3.89%	0.17%	-0.33%	152,687	
17	316	Misc Power Equipment	975,086	1.95%	3.25%	3.11%	0.14%	-0.28%	12,676	
18	311-316	Total Iatan 1	133,285,135	<b>1.84%</b>	<b>3.12%</b>	<b>2.98%</b>	<b>0.14%</b>	<b>-0.28%</b>	<b>3.21%</b>	1,705,081
<b>Iatan 2</b>										
19	311	Structure & Improvements			2.10%	2.00%	0.10%	-0.20%	-	
20	312	Boiler Plant Equipment			2.10%	2.00%	0.10%	-0.20%	-	
21	314	Turbo Generator Equipment			2.10%	2.00%	0.10%	-0.20%	-	
22	315	Accessory Electric Equipment			2.10%	2.00%	0.10%	-0.20%	-	
23	316	Misc Power Equipment			2.10%	2.00%	0.10%	-0.20%	-	
24	311-316	Total Iatan 2	0		<b>2.10%</b>	<b>2.00%</b>	<b>0.10%</b>	<b>-0.20%</b>	<b>2.10%</b>	-
<b>Plum Point</b>										
25	311	Structure & Improvements			2.10%	2.00%	0.10%	-0.20%	-	
26	312	Boiler Plant Equipment			2.10%	2.00%	0.10%	-0.20%	-	
27	314	Turbo Generator Equipment			2.10%	2.00%	0.10%	-0.20%	-	
28	315	Accessory Electric Equipment			2.10%	2.00%	0.10%	-0.20%	-	
29	316	Misc Power Equipment			2.10%	2.00%	0.10%	-0.20%	-	
30	311-316	Total Plum Point	0		<b>2.10%</b>	<b>2.00%</b>	<b>0.10%</b>	<b>-0.20%</b>	<b>2.10%</b>	-
<b>Total Steam Production</b>										
31	311	Structure & Improvements	29,371,421	1.06%	3.03%	8.18%	0.37%	-0.26%	579,835	
32	312	Boiler Plant Equipment	241,470,505	1.88%	4.07%	10.96%	0.51%	-0.36%	5,293,987	
33	314	Turbo Generator Equipment	38,890,605	1.60%	2.64%	7.30%	0.34%	-0.23%	405,235	
34	315	Accessory Electric Equipment	14,381,938	1.80%	3.52%	8.78%	0.44%	-0.34%	247,627	
35	316	Misc Power Equipment	5,200,659	1.95%	4.35%	11.90%	0.57%	-0.40%	124,674	
36	311-316	Total Total Steam Production	329,315,127	<b>1.77%</b>	<b>3.79%</b>				<b>4.84%</b>	6,651,359
<b>Ozark Beach Hydro</b>										
37	331	Structures & Improvements	677,760	1.66%	2.00%	1.91%	0.09%	-0.18%	2,304	
38	332	Reservoirs, Dams, and Waterways	1,518,257	1.67%	0.98%	0.93%	0.04%	-0.09%	(10,476)	
39	333	Water Wheels, Turbines & Generators	1,619,458	1.47%	3.00%	2.84%	0.16%	-0.32%	24,778	
40	334	Accessory Electric Equipment	1,237,583	1.44%	1.97%	1.87%	0.10%	-0.20%	6,559	
41	335	Misc. Power Plant Equipment	456,214	2.44%	3.52%	3.36%	0.16%	-0.33%	4,927	
42	331-335	Total Ozark Beach Hydro	5,509,271	<b>1.62%</b>	<b>2.13%</b>	<b>2.02%</b>	<b>0.11%</b>	<b>-0.21%</b>	<b>2.70%</b>	28,092

# UNIT PROPERTY ANALYSIS

THE EMPIRE DISTRICT ELECTRIC COMPANY  
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**Table 5-1**  
**Unit Property Analysis – continued**

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	
FERC		Plant in Service	Existing	Whole Life	Recommended	Salvage	COR	Remaining	Change in	
Line	Account	Description	at 12/31/2009	Accrual	Life	Rate	Rate	Life	Depreciation	
				Rate	Rate	Rate	Rate	Rate	Expense	
					[F]-[G]-[H]				[(E)-[D]]*[C]	
<b>State Line CC</b>										
43	341	Structures & Improvements	10,537,350	2.86%	2.11%	2.07%	0.17%	-0.21%	(79,030)	
44	342	Fuel Holders	2,411,871	2.86%	4.58%	4.52%	0.26%	-0.33%	41,484	
45	343	Prime Movers	107,266,868	2.86%	2.01%	2.11%	0.20%	-0.10%	(911,768)	
46	344	Generators	28,471,627	2.86%	2.44%	2.54%	0.20%	-0.10%	(119,581)	
47	345	Accessory Electric Equipment	11,132,359	2.86%	2.19%	2.15%	0.17%	-0.21%	(74,587)	
48	346	Misc. Power Equipment	2,819,098	2.86%	2.08%	2.04%	0.16%	-0.20%	(21,989)	
49	341-346	Total State Line CC	162,639,173	<b>2.86%</b>	<b>2.14%</b>	<b>2.22%</b>	<b>0.20%</b>	<b>-0.12%</b>	<b>2.07%</b>	(1,165,471)
<b>State Line CT</b>										
50	341	Structures & Improvements	1,103,838	1.82%	4.24%	4.20%	0.14%	-0.17%	26,713	
51	342	Fuel Holders	3,230,198	3.85%	2.31%	2.27%	0.16%	-0.19%	(49,745)	
52	343	Prime Movers	27,222,287	1.93%	3.56%	3.67%	0.22%	-0.11%	443,723	
53	344	Generators	7,178,570	1.82%	2.62%	2.72%	0.20%	-0.10%	57,429	
54	345	Accessory Electric Equipment	2,892,158	3.57%	2.40%	2.36%	0.17%	-0.21%	(33,838)	
55	346	Misc. Power Equipment	1,046,076	3.99%	3.86%	3.80%	0.24%	-0.30%	(1,360)	
56	341-346	Total State Line CT	42,673,128	<b>2.22%</b>	<b>3.25%</b>	<b>3.33%</b>	<b>0.21%</b>	<b>-0.13%</b>	<b>1.97%</b>	442,922
<b>Energy Center Unit 1&amp;2</b>										
57	341	Structures & Improvements	1,948,262	1.82%	2.19%	2.15%	0.17%	-0.21%	7,209	
58	342	Fuel Holders	1,679,645	3.85%	3.03%	2.97%	0.24%	-0.30%	(13,773)	
59	343	Prime Movers	27,551,778	1.92%	2.33%	2.43%	0.19%	-0.09%	112,962	
60	344	Generators	4,504,458	1.82%	2.10%	2.17%	0.13%	-0.07%	12,612	
61	345	Accessory Electric Equipment	2,091,865	3.57%	1.20%	1.12%	0.31%	-0.39%	(49,577)	
62	346	Misc. Power Equipment	1,458,408	4.00%	2.75%	2.70%	0.21%	-0.26%	(18,230)	
63	341-346	Total Energy Center Unit 1&2	39,234,417	<b>2.15%</b>	<b>2.28%</b>	<b>2.35%</b>	<b>0.19%</b>	<b>-0.13%</b>	<b>1.28%</b>	51,203
<b>Energy Center Unit 3&amp;4 (FT8s)</b>										
64	341	Structures & Improvements	1,107,790	1.82%	2.04%	2.00%	0.16%	-0.20%	2,437	
65	342	Fuel Holders	1,390,886	3.85%	2.04%	2.00%	0.16%	-0.20%	(25,715)	
66	343	Prime Movers	46,538,833	1.92%	1.96%	2.06%	0.20%	-0.10%	18,616	
67	344	Generators	531,753	1.82%	1.91%	2.01%	0.20%	-0.10%	479	
68	345	Accessory Electric Equipment	3,443,294	3.57%	2.05%	2.01%	0.16%	-0.20%	(52,338)	
69	346	Misc. Power Equipment	1,049,438	3.99%	2.04%	2.00%	0.16%	-0.20%	(20,464)	
70	341-346	Total Energy Center Unit 3&4 (FT8s)	54,061,994	<b>2.11%</b>	<b>1.97%</b>	<b>2.05%</b>	<b>0.20%</b>	<b>-0.11%</b>	<b>2.12%</b>	(76,446)
<b>Riverton CT</b>										
71	341	Structures & Improvements	977,547	1.82%	1.69%	1.67%	0.06%	-0.08%	(1,271)	
72	342	Fuel Holders	1,413,776	3.85%	2.03%	2.00%	0.11%	-0.13%	(25,731)	
73	343	Prime Movers	22,647,967	1.92%	2.02%	2.11%	0.17%	-0.08%	22,648	
74	344	Generators	13,466,633	1.82%	1.91%	2.00%	0.17%	-0.08%	12,120	
75	345	Accessory Electric Equipment	11,079,331	3.57%	1.95%	1.91%	0.15%	-0.18%	(179,485)	
76	346	Misc. Power Equipment	1,570,252	4.00%	2.04%	2.00%	0.15%	-0.19%	(30,777)	
77	341-346	Total Riverton CT	51,155,505	<b>2.37%</b>	<b>1.97%</b>	<b>2.02%</b>	<b>0.16%</b>	<b>-0.11%</b>	<b>1.93%</b>	(202,496)
78	Total		684,588,615		<b>2.99%</b>				5,729,164	

## 5.1 Steam Production Plant

The steam electric generating stations owned by EDE as of December 31, 2009 include two units at Asbury, one unit at Iatan (12% ownership), and two units at Riverton. Iatan Unit 2 and Plum Point are currently under construction and are scheduled to be placed in service in 2010. EDE owns a 100 MW or 12% share of Iatan 2 and a 50 MW or 7.52% share of Plum Point.

Table 5-2 summarizes the nameplate rating, year of installation, and forecast retirement date for each unit as provided by EDE.

## UNIT PROPERTY ANALYSIS

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**Table 5-2**  
**Steam Production Plant Data**

Line	[A] Steam Production Plant	[B] Nameplate Rating MW	[C] Date Installed	[D] Estimated Retirement	[E] Estimated Service Life years
1	Asbury 1	189	1970	2030	60
2	Asbury 2	18	1986	2015	29
3	Riverton 7	38	1950	2018	68
4	Riverton 8	54	1954	2018	64
5	Iatan 1 (a)	85	1980	2040	60
6	Iatan 2 (b)	100	2010	2060	50
7	Plum Point (c)	50	2010	2060	50

(a) EDE owns a 12% share of Iatan 1

(b) EDE owns a 12% share of Iatan 2

(c) EDE owns a 7.52% share of Plum Point

**Asbury.** This station, located in Asbury, MO, has two steam generating units with a maximum net capability of 207 MW. The age of this station at the end of 2009 was 39 years and the remaining life is estimated to be 21 years based on the forecast retirement of the plant in 2030. In order to achieve this life, it is expected that Asbury will have major capital additions of approximately \$114 million in 2015 to install mercury emissions controls to Unit 1. Unit 2 was placed in service in 1986 and will be retired coincident with the Unit 1 environmental upgrade in 2015. Other than this major capital addition, nominal levels of interim additions and interim retirements are expected to be made over the remaining life of the station. The Appendix summarizes the derivation of whole life rates and remaining life rates (with and without cost of removal) applicable to Asbury. A whole life accrual rate of 4.57 percent and a remaining life accrual rate of 5.93 percent (with cost of removal) are shown in Table 5-1. The accumulated depreciation reserve for the Asbury is \$13,050,958 compared to the plant balance of \$149,946,466 as of December 31, 2009.

**Riverton.** The Riverton Plant is located in Riverton, KS and has been in service since 1905. The currently operational steam units were placed in service in 1950 and 1954. The steam production facilities at this location include two coal-fired units, 38 MW (Unit 7) and 54 MW (Unit 8). At the end of 2009, the age of the units were 59 and 55 years and the remaining life of both units is estimated to be 9 years based on the forecast retirement of the units in 2018.

Based on the unit property methodology, the whole life accrual rate for Riverton Units 7 and 8 is 3.18 percent and the remaining life rate (with cost of removal) is 6.01 percent as shown in Table 5-1. The accumulated depreciation reserve is \$28,774,554 compared to the plant balance of \$46,083,525 as of December 31, 2009. The analysis showing the development of these rates is shown in the Appendix.

**Iatan 1.** The Iatan Plant is located in Weston, MO and was placed in service in 1980. EDE owns a 12% share of Iatan 1, or approximately 85 MW. At the end of 2009, the age of the facility was 29 years and the remaining life is estimated to be 31 years based on the forecast retirement of the unit in 2040.

Based on the unit property methodology, the whole life accrual rate for Iatan 1 is 3.12 percent and the remaining life rate (with cost of removal) is 3.21 percent as shown in Table 5-1. The accumulated depreciation reserve is \$36,078,829 compared to the plant balance of \$133,285,135 as of December 31, 2009. The analysis showing the development of these rates is shown in the Appendix.



## UNIT PROPERTY ANALYSIS

THE EMPIRE DISTRICT ELECTRIC COMPANY  
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### 5.2 Hydraulic Production Plant

EDE owns the Ozark Beach hydraulic production plant which consists of four generating units installed in 1931. The current licensing period for Ozark Beach ends in 2022, however EDE expects to extend the life of the Ozark Beach plant through another 30 year licensing period. We have used an estimated final retirement date of 2053 which corresponds to the expiration of the renewed licensing period. We believe that substantial additional capital additions may be required to achieve this estimated retirement date.

**Table 5-3**  
**Hydraulic Production Plant Data**

Line	[A] Hydraulic Production Plant	[B] Nameplate Rating MW	[C] Date Installed	[D] Estimated Retirement	[E] Estimated Service Life years
1	Ozark Beach 1	4	1931	2053	122
2	Ozark Beach 2	4	1931	2053	122
3	Ozark Beach 3	4	1931	2053	122
4	Ozark Beach 4	4	1931	2053	122

### 5.3 Other Production Plant

The other electric generating stations owned by EDE as of December 31, 2009 include the Energy Center combustion turbines, the Riverton combustion turbines, and the State Line combined cycle and combustion turbine. EDE forecasts 50 year service lives for a majority of combustion turbines as well as for the combined cycle plant. These forecast retirement dates result in services lives considerably greater than those we normally use for this type equipment. However, when considering EDE's capital maintenance schedules and limited use of these facilities, we find the estimates to be reasonable.

Table 5-4 summarizes the nameplate rating, year of installation, and forecast retirement date for each unit as provided by EDE.

**Table 5-4**  
**Other Production Plant Data**

Line	[A] Other Production Plant	[B] Nameplate Rating MW	[C] Date Installed	[D] Estimated Retirement	[E] Estimated Service Life years
1	Energy Center 1	85	1978	2028	50
2	Energy Center 2	84	1981	2031	50
3	Energy Center 3 (FT8)	49	2003	2053	50
4	Energy Center 4 (FT8)	49	2003	2053	50
5	Riverton 9	12	1964	2018	54
6	Riverton 10	16	1988	2038	50
7	Riverton 11	16	1988	2038	50
8	Riverton 12	150	2007	2057	50
9	State Line 1, CT	96	1995	2045	50
10	State Line 2, CC (a)	300	2001	2051	50

(a) EDE owns a 300 MW share of State Line 2 (combined cycle)

## UNIT PROPERTY ANALYSIS

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**Energy Center.** The Energy Center is located in LaRussell, MO. Units 1 and 2 are combustion turbines and were installed in the period 1978 and 1984, respectively. Units 3 and 4 are FT8 combustion turbines and were installed in 1993. All units are forecast to be in service for 50 years.

Based on the unit property methodology, the whole life accrual rate for Energy Center Units 1 and 2 is 2.28 percent and the remaining life rate (with cost of removal) is 1.28 percent as shown in Table 5-1. The accumulated depreciation for the Units 1 and 2 is \$29,086,085 compared to the plant balance of \$39,234,417 for the period ending December 31, 2009.

For Energy Center Units 3 and 4, the whole life accrual rate is 1.97 percent and the remaining life rate (with cost of removal) is 2.12 percent as shown in Table 5-1. The accumulated depreciation for the plant is \$2,712,381 compared to the plant balance of \$54,061,994 for the period ending December 31, 2009. The analysis showing the development of these rates is shown in the Appendix.

**Riverton.** The combustion turbines at Riverton were installed between 1964 and 2007. Unit 9 is forecast to retire at the same time as the steam units in 2018. Units 10, 11 and 12 are forecast to be in service for 50 years. Based on the unit property methodology, the whole life accrual rate for the Riverton combustion turbines is 1.97 percent and the remaining life rate (with cost of removal) is 1.93 percent as shown in Table 5-1. The accumulated depreciation reserve is \$9,760,554 compared to the plant balance of \$51,155,505 as of December 31, 2009. The analysis showing the development of these rates is shown in the Appendix.

**State Line.** The State Line plant is located west of Joplin, MO and consists of a combustion turbine installed in 1995 and a combined cycle unit installed in 2001 of which EDE owns a 300MW share. At the end of 2009, the ages of the units were 14 and 8 years and the remaining life was estimated to be 36 and 42 years based on the forecast lifespan of 50 years.

Based on the unit property methodology, the whole life accrual rate for State Line combustion turbine is 3.25 percent and the remaining life rate (with cost of removal) is 1.97 percent as shown in Table 5-1. The accumulated depreciation is \$17,852,776 compared to the plant balance of \$42,673,128 for the period ending December 31, 2009.

For the State Line combined cycle plant, the whole life accrual rate is 2.14 percent and the remaining life rate (with cost of removal) is 2.07 percent as shown in Table 5-1. The accumulated depreciation for the plant is \$28,081,610 compared to the plant balance of \$162,639,173 for the period ending December 31, 2009. The analysis showing the development of these rates is shown in the Appendix.

### 5.4 Iatan 2 and Plum Point Depreciation Rates

EDE owns a share of the Iatan 2 and Plum Point plants which are scheduled to begin commercial service in 2010. EDE asked that we recommend depreciation rates for its investment these plants. We recommend an initial depreciation rate of both Iatan 2 and Plum Point plants of 2.10%. This whole life depreciation rate is based on an initial estimated 50 year lifespan and -5% terminal cost of removal. We recommend EDE use this initial depreciation rate for all accounts (Account 311 – Account 316). Our initial depreciation rate recommendation does not include consideration of future major capital investment that likely will be required to operate the plants for 50 years or longer and will change as the plants histories develop.

## MASS PROPERTY ANALYSIS

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### 6.0 MASS PROPERTY ANALYSIS

There are two fundamental approaches (methods) used to develop depreciation rates. These are the whole life approach and the remaining life approach. The basic equation used to determine a whole life depreciation rate is as follows:

$$\text{Whole Life Rate} = \frac{1 - \text{Salvage Ratio}}{\text{Average Service Life}}$$

As evident from the above, this equation consists of two elements. The first element reflects recovery of the initial investment (1/ASL). The second element (-SR/ASL) reflects credit for net salvage. As we previously indicated, the purpose of considering net salvage in determining the accrual rate is to credit salvage and recover cost of removal over the life of the property.

An underlying assumption of the whole life method is that for mass property accounts, as property is retired and new property is installed, the average service life of the group does not change significantly. The whole life method is predicated on homogeneity of the property units included in the group. For mass property accounts that have significant retirement history, where vintage retirement history is available, and where we consider life characteristics in the future to be similar to those observed in the past, we use an actuarial analysis as the principal basis to estimate average service life.

Conversely, the basic equation used to determine a remaining life depreciation rate is as follows:

$$\text{Remaining Life Rate} = \frac{1 - \text{Salvage Ratio} - \text{Reserve Ratio}}{\text{Estimated Average Remaining Life}}$$

As demonstrated above, the whole life and remaining life equations are comparable. The only difference is, as the names imply, that under the whole life approach, investment is recovered equally over the entire life. With the remaining life method, undepreciated investment is recovered over the remaining life. So long as no change in life or other characteristics occur, the whole life and remaining life depreciation rates will be the same. Typically an adjustment to reflect the amortization of reserve variance converts the whole life rate to a remaining life rate.

The traditional approach for incorporating allowances for net salvage is to compare annual net salvage (gross salvage minus cost of removal) to the original cost of the plant retired during that year. Typically this approach involves activity over a representative historical period, preferably at least 10 years. The traditional approach assumes that the ratio of net salvage dollars to the original cost dollars of the retirements is representative of the allowance that will ultimately apply to all plant in service over the life of the asset. In a whole life depreciation calculation, this allowance (ratio) is deducted before dividing by the average service life.

#### 6.1 *Whole Life Analysis for Mass Property*

In Table 6-1, we summarize our recommended average service lives (ASL), Iowa curves, and net salvage ratios we use to calculate our indicated whole life depreciation rates applicable to mass property accounts. For mass property accounts (transmission, distribution, and general plant), we develop average service lives based on retirement (actuarial) analyses. We base our recommended net salvage ratios on EDE history, previous experience with similar systems, and judgment.

In this section, we summarize EDE's existing whole life rates and indicated whole life depreciation rates. To determine the average service life (ASL), we rely on retirement analyses for transmission, distribution and general plant.

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EDE provided us with salvage and cost of removal data by plant account for the years 1988 through 2009. We analyzed the data, and developed average gross salvage, cost of removal and net salvage for transmission, distribution, and general plant accounts. Our recommended gross salvage, cost of removal, and net salvage adjustments are based on the last 10 years of EDE's net salvage history, our experience, and professional judgment.

Table 6-1 shows the development of our indicated whole life rates using our recommended average service lives, Iowa curves, and net salvage adjustment.

### 6.1.1 Transmission Plant

Based on the review of the results of our actuarial analyses, along with consideration of the average age of retired properties and engineering judgment, we developed indicated service lives for transmission plant. The net salvage ratios are based on EDE data, our experience and professional judgment. A listing of average service lives and net salvage ratios for each plant account is shown in Table 6-1.

The actuarial analysis indicated a few changes in the whole life rates as compared to the existing rates. As shown in Table 6-1, actuarial analyses suggest that the average service life for Station Equipment (Account 353) increased by 2 years, while Poles and Fixtures (Account 355) and Overhead Conductors and Devices (Account 356) decreased by 5 and 7 years, respectively. Structures and Improvements (Account 352) and Towers and Fixtures (Account 354) did not have adequate retirement history for actuarial analysis and we are recommending no change to ASL. An analysis of the historical salvage and cost of removal data indicates that, in general, the transmission function has a negative net salvage (cost of removal exceeds salvage value). Net salvage ratios for transmission plant have trended less negative (reduction in cost of removal) and are shown in Table 6-1, Column R. As shown in Table 6-1, the indicated composite whole life rate for transmission plant is 2.24%.

### 6.1.2 Distribution Plant

EDE's distribution plant consists of substations, overhead and underground lines, transformers, services, meters, and lighting facilities. A listing of average service lives, Iowa curves, and net salvage ratios we use for each plant account is shown in Table 6-1.

Much like our actuarial analysis of transmission plant, some changes were identified for distribution plant accrual rates. As shown in Table 6-1, the actuarial analysis suggests that Meters (Account 370) and Street Lighting and Signal Systems (Account 373) decrease ASL by 1 and 3 years, respectively. Of the remaining 9 distribution accounts, the actuarial analysis indicates 8 show the need for longer average service lives. The specific changes are shown below:

- Structures and Improvements (Account 361) increases from 60 to 64 years
- Station Equipment (Account 362) increases from 45 to 52 years,
- Overhead Conductor and Devices (Account 365) increases from 53 to 59 years,
- Underground Conduit (Account 366) increases from 37 to 50 years,
- Underground Conductors and Devices (Account 367) increases from 32 to 45 years,
- Line Transformers (Account 368) increases from 45 to 48 years,
- Services (Account 369) increases from 40 to 43 years,
- Installations (Account 371) increases from 25 to 28 years.

Based on our analysis of EDE's history of gross salvage and cost of removal, as well as our experience, we recommend changes in net salvage ratios for 8 distribution accounts, as summarized below:

- Structures and Improvements (Account 361) changes from -25% to 0%,
- Station Equipment (Account 362) changes from 15% to -17%,
- Underground Conduit (Account 366) changes from -45% to -11%,

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- Underground Conductors and Devices (Account 367) changes from -15% to -7%,
- Line Transformers (Account 368) changes from -25% to 1%,
- Meters (Account 370) changes from 0% to -4%,
- Installations (Account 371) changes from -45% to -42%,
- Street Lighting and Signal Systems (Account 373) changes from -50% to -52%.

Net salvage was capped at a maximum of -100% for of our recommendations. As shown in Table 6-1, the indicated composite whole life rate for distribution plant is 3.26%

### 6.1.3 General Plant

General plant consists of facilities and equipment which are used to support all functional activities. A listing of the average service lives and net salvage ratios for each plant account is shown in Table 6-1.

Based on the results of our actuarial analysis, six general plant accounts indicated the need for longer services lives. Specific recommended changes are shown below:

- Transportation Equipment (Account 392) increases from 12 to 13 years,
- Stores Equipment (Account 393) increases from 30 to 40 years,
- Laboratory Equipment (Account 395) increases from 38 to 46 years,
- Power Operated Equipment (Account 396) increases from 15 to 17 years,
- Communication Equipment (Account 397) increases from 25 to 27 years,
- Miscellaneous Equipment (Account 398) increases from 22 to 32 years.

We recommend changes to net salvage ratios for seven accounts shown below:

- Structures and Improvements (Account 361) changes from -10% to 0%,
- Computer Equipment (Account 391.2) changes from 0% to 10%,
- Transportation Equipment (Account 392) changes from 15% to 2%,
- Stores Equipment (Account 393) changes from 5% to 0%,
- Tools Shop and Garage Equipment (Account 393) changes from 10% to 0%,
- Laboratory Equipment (Account 395) changes from 0% to 4%,
- Power Operated Equipment (Account 396) changes from 5% to 0%.

As shown in Table 6-1, the indicated composite whole life rate for general plant accounts is 5.75%

**Table 6-1  
Summary of Mass Property Analysis**

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	Existing			[L]	[M]
Line	FERC Acct Description	Plant in Service At 12/31/2009	Average Service Life	Gross Salvage	Cost of Removal	Net Salvage	Whole Life Rate (1 - [G])/[D]	Life Accrual [C] * 1/[D]	Salvage Accrual [C] * [E]/[D]	COR Accrual [C] * [F]/[D]	NS Accrual [J] + [K]	Total Accrual [I] - [L]
1	Transmission Plant											
2	Land and Land Rights	8,985,871										
3	Structures and Improvements	2,891,646	55	0%	-15%	-15%	2.09%	52,575	-	(7,886)	(7,886)	60,462
4	Station Equipment	89,559,756	50	0%	-10%	-10%	2.20%	1,791,195	-	(179,120)	(179,120)	1,970,315
5	Towers and Fixtures	799,508	65	0%	-25%	-25%	1.92%	12,300	-	(3,075)	(3,075)	15,375
6	Poles and Fixtures	39,748,752	60	65%	-165%	-100%	3.33%	662,479	430,611	(1,093,091)	(662,479)	1,324,958
7	Overhead Conductors and Devices	61,449,854	65	60%	-100%	-40%	2.15%	945,382	567,229	(945,382)	(378,153)	1,323,535
8	Roads and Trails											
9	Total Transmission Plant	203,435,387					2.41%	3,463,932	997,841	(2,228,554)	(1,230,713)	4,694,645
10	Distribution Plant											
11	Land and Land Rights	2,360,393										
12	Structures and Improvements	9,756,326	60	0.0%	-25.0%	-25%	2.08%	162,605	-	(40,651)	(40,651)	203,257
13	Station Equipment	73,010,259	45	40.0%	-25.0%	15%	1.89%	1,622,450	648,980	(405,613)	243,368	1,379,083
14	Poles, Towers and Fixtures	136,982,762	46	55.0%	-155.0%	-100%	4.35%	2,977,886	1,637,837	(4,615,723)	(2,977,886)	5,955,772
15	Overhead Conductors and Devices	145,684,661	53	50.0%	-150.0%	-100%	3.77%	2,748,767	1,374,384	(4,123,151)	(2,748,767)	5,497,534
16	Underground Conduit	28,565,405	37	10.0%	-55.0%	-45%	3.92%	772,038	77,204	(424,621)	(347,417)	1,119,455
17	Underground Conductors & Devices	52,594,929	32	5.0%	-20.0%	-15%	3.59%	1,643,592	82,180	(328,718)	(246,539)	1,890,130
18	Line Transformers	88,765,104	45	3.0%	-28.0%	-25%	2.78%	1,972,558	59,177	(552,316)	(493,139)	2,465,697
19	Meters	65,419,731	40	20.0%	-120.0%	-100%	5.00%	1,636,493	327,099	(1,962,592)	(1,635,493)	3,270,987
20	Installations on Cust. Premises	18,312,044	44	0.0%	0.0%	0%	2.27%	416,183	-	-	-	416,183
21	Street Lighting & Signal Systems	15,685,879	25	10.0%	-55.0%	-45%	5.80%	627,435	62,744	(345,089)	(282,346)	909,781
22	Total Distribution Plant	14,418,926	48	25.0%	-75.0%	-50%	3.13%	300,394	75,099	(225,296)	(150,197)	450,591
23	Total Distribution Plant	651,556,418						14,879,402	4,344,702	(13,023,771)	(8,679,069)	23,558,471
24	General Plant											
25	Land and Land Rights	679,466										
26	Structures and Improvements	9,489,178	40	0.0%	-10.0%	-10%	2.75%	237,229	-	(23,723)	(23,723)	260,952
27	Office Furniture and Equipment	4,188,701	20	0.0%	0.0%	0%	5.00%	209,435	-	-	-	209,435
28	Computer Equipment	11,463,123	10	0.0%	0.0%	0%	10.00%	1,146,312	-	-	-	1,146,312
29	Transportation Equipment	7,946,771	12	15.0%	0.0%	15%	7.08%	662,231	99,335	-	99,335	562,896
30	Stores Equipment	445,006	30	5.0%	0.0%	5%	3.17%	14,834	742	-	742	14,092
31	Tools, Shop & Garage Equipment	3,823,571	20	10.0%	0.0%	10%	4.50%	191,179	19,118	-	19,118	172,061
32	Laboratory Equipment	946,905	38	0.0%	0.0%	0%	2.63%	24,919	-	-	-	24,919
33	Power Operated Equipment	11,526,119	15	5.0%	0.0%	5%	6.33%	768,408	38,420	-	38,420	729,988
34	Communication Equipment	10,108,470	25	0.0%	0.0%	0%	4.00%	404,339	-	-	-	404,339
35	Miscellaneous Equipment	188,505	22	0.0%	0.0%	0%	4.55%	8,568	-	-	-	8,568
36	Total General Plant	60,805,815						3,667,453	157,615	(23,723)	133,892	3,533,562
	Total Mass Property	915,797,620						22,010,788	5,500,157	(15,276,047)	(9,775,890)	31,786,678

Table 6-1 continued  
Summary of Mass Property Analysis

[A]	[B]	[C]	[N]	[O]	[P]	[Q]	[R]	[S]	[T] Recommended		[U]	[V]	[W]	[X]
Line	FERC Acct	Description	Plant in Service At 12/31/2009	Average Iowa Service Curve	Gross Salvage	Cost of Removal	Net Salvage	Whole Life Rates	Life Accrual	Salvage Accrual	COR Accrual	NS Accrual	Total Accrual	
									[C] * 1/[O]	[C] * P/[O]	[C] * Q/[O]	[U] + [V]	[T] - [W]	
1		Transmission Plant												
2	350	Land and Land Rights	8,985,871		0%	0%	0%	1.82%	52,575	-	-	-	52,575	
3	352	Structures and Improvements	2,891,646	R2	0%	-13%	-13%	2.17%	1,722,303	-	(223,899)	(223,899)	1,946,202	
4	353	Station Equipment	89,559,756	R2	0%	0%	0%	1.54%	12,300	-	-	-	12,300	
5	354	Towers and Fixtures	799,508	R4	0%	-275%	-30%	2.36%	722,705	1,770,626	(1,987,438)	(216,811)	939,516	
6	355	Poles and Fixtures	39,748,752	R4	245%	-183%	-32%	2.28%	1,059,480	1,599,815	(1,938,849)	(339,034)	1,398,514	
7	356	Overhead Conductors and Devices	61,449,854	R2	151%									
8	359	Roads and Trails												
9		Total Transmission Plant	203,435,387					2.24%	3,569,363	3,370,441	(4,150,186)	(779,744)	4,349,108	
10		Distribution Plant												
11	360	Land and Land Rights	2,360,393		0%	0%	0%	1.56%	152,443	-	-	-	152,443	
12	361	Structures and Improvements	9,756,326	S1	17%	-34%	-17%	2.25%	1,404,043	238,687	(477,375)	(238,687)	1,642,731	
13	362	Station Equipment	73,010,259	L1	88%	-188%	-100%	4.35%	2,977,886	2,620,540	(5,598,426)	(2,977,886)	5,955,772	
14	364	Poles, Towers and Fixtures	136,982,762	R3	46	91%	-100%	3.39%	2,469,232	2,247,001	(4,716,232)	(2,469,232)	4,938,463	
15	365	Overhead Conductors and Devices	145,684,661	R2.5	50	17%	-11%	2.22%	571,308	97,122	(159,966)	(62,844)	634,152	
16	366	Underground Conduit	28,565,405	R2.5	45	9%	-7%	2.38%	1,168,776	105,190	(187,004)	(81,814)	1,250,591	
17	367	Underground Conductors & Devices	52,594,929	R1	45	6%	1%	2.06%	1,849,273	110,956	(92,464)	18,493	1,830,780	
18	368	Line Transformers	88,765,104	S0.5	48	19%	-100%	4.65%	1,521,389	289,064	(1,810,453)	(1,521,389)	3,042,778	
19	369	Services	65,419,731	R4	43	0%	-4%	2.42%	425,861	-	(17,034)	(17,034)	442,896	
20	370	Meters	18,312,044	S0	43	0%	-4%	2.42%	425,861	-	(17,034)	(17,034)	442,896	
21	371	Installations on Cust. Premises	15,685,879	R1	28	13%	-55%	5.07%	560,210	72,827	(308,115)	(235,288)	795,498	
22	373	Street Lighting & Signal Systems	14,418,926	R1	45	14%	-52%	3.38%	320,421	44,859	(211,478)	(166,619)	487,039	
23		Total Distribution Plant	651,556,418					3.26%	13,420,842	5,826,247	(13,578,548)	(7,752,301)	21,173,143	
24		General Plant												
25	389	Land and Land Rights	679,466		0%	0%	0%	3.57%	338,899	-	-	-	338,899	
26	390	Structures and Improvements	9,489,178	L3	0%	0%	0%	5.00%	209,435	-	-	-	209,435	
27	391.1	Office Furniture and Equipment	4,188,701	L0	20	8%	2%	9.00%	1,146,312	91,705	22,926	114,631	1,031,681	
28	391.2	Computer Equipment	11,463,123	R1	13	0%	2%	7.54%	611,290	-	12,226	12,226	599,064	
29	392	Transportation Equipment	7,946,771	R1	40	0%	0%	2.50%	11,125	-	-	-	11,125	
30	393	Stores Equipment	445,006	R1	40	0%	0%	5.00%	191,179	-	-	-	191,179	
31	394	Tools, Shop & Garage Equipment	3,823,571	R3	46	4%	0%	2.09%	20,585	823	-	823	19,761	
32	395	Laboratory Equipment	946,905	R3	17	0%	0%	5.88%	678,007	-	-	-	678,007	
33	396	Power Operated Equipment	11,526,119	R3	17	0%	0%	3.70%	374,388	-	-	-	374,388	
34	397	Communication Equipment	10,108,470	S0	27	0%	0%	3.13%	5,891	-	-	-	5,891	
35	398	Miscellaneous Equipment	188,505	S0	32	0%	0%	5.75%	3,587,111	92,528	35,152	127,680	3,459,430	
36		Total General Plant	60,805,815											
		Total Mass Property	915,797,620						20,577,316	9,289,216	(17,693,581)	(8,404,365)	28,981,681	

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Table 6-1 continued  
Summary of Mass Property Analysis

[A]	[B]	[C]	[Y]	[Z]	[AA] Difference	[AB]	[AC]
Line	FERC Acct Description	Plant in Service At 12/31/2009	Life Accrual [T] - [I]	Salvage Accrual [U] - [J]	COR Accrual [V] - [K]	NS Accrual [W] - [L]	Total Accrual [X] - [M]
1	Transmission Plant						
2	Land and Land Rights	8,985,871	-	-	7,886	7,886	(7,886)
3	Structures and Improvements	2,891,646	(68,892)	-	(44,780)	(44,780)	(24,112)
4	Station Equipment	89,559,756	-	-	3,075	3,075	(3,075)
5	Towers and Fixtures	799,508	60,225	1,340,015	(894,347)	445,668	(385,442)
6	Poles and Fixtures	39,748,752	114,098	1,032,586	(993,466)	39,119	74,979
7	Overhead Conductors and Devices	61,449,854					
8	Roads and Trails						
9	Total Transmission Plant	203,435,387	105,431	2,372,600	(1,921,632)	450,969	(345,537)
10	Distribution Plant						
11	Land and Land Rights	2,360,393	(10,163)	-	40,651	40,651	(50,814)
12	Structures and Improvements	9,756,326	(218,407)	(410,293)	(71,762)	(482,055)	263,648
13	Station Equipment	73,010,259	-	982,702	(982,702)	-	-
14	Poles, Towers and Fixtures	136,982,762	(279,536)	872,617	(593,081)	279,536	(559,071)
15	Overhead Conductors and Devices	145,684,661	(200,730)	19,919	284,655	284,573	(485,303)
16	Underground Conduit	28,565,405	(474,815)	23,010	141,714	164,724	(639,540)
17	Underground Conductors & Devices	52,594,929	(123,285)	51,780	459,853	511,632	(634,917)
18	Line Transformers	88,765,104	(114,104)	(38,035)	152,139	114,104	(228,208)
19	Services	65,419,731	9,679	-	(17,034)	-	26,713
20	Meters	18,312,044	(67,225)	10,084	36,974	47,058	(114,283)
21	Installations on Cust. Premises	15,685,879	20,026	(30,240)	13,818	(16,422)	36,448
22	Street Lighting & Signal Systems	14,418,926					
23	Total Distribution Plant	651,556,418	(1,458,560)	1,481,545	(554,777)	926,768	(2,385,327)
24	General Plant						
25	Land and Land Rights	679,466	101,670	-	23,723	23,723	77,947
26	Structures and Improvements	9,489,178	-	-	-	-	-
27	Office Furniture and Equipment	4,188,701	-	91,705	22,926	114,631	(114,631)
28	Computer Equipment	11,463,123	(50,941)	(99,335)	12,226	(87,109)	36,168
29	Transportation Equipment	7,946,771	(3,708)	(742)	-	(742)	(2,967)
30	Stores Equipment	445,006	-	(19,118)	-	(19,118)	19,118
31	Tools, Shop & Garage Equipment	3,823,571	(4,334)	823	-	823	(5,157)
32	Laboratory Equipment	946,905	(90,401)	(38,420)	-	(38,420)	(51,981)
33	Power Operated Equipment	11,526,119	(29,951)	-	-	-	(29,951)
34	Communication Equipment	10,108,470	(2,678)	-	-	-	(2,678)
35	Miscellaneous Equipment	188,505	(80,343)	(65,086)	58,875	(6,211)	(74,132)
36	Total General Plant	60,805,815	(80,343)	(65,086)	58,875	(6,211)	(74,132)
	Total Mass Property	915,797,620	(1,433,471)	3,789,059	(2,417,534)	1,371,525	(2,804,996)



## MASS PROPERTY ANALYSIS

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### **6.2 Depreciation Reserve Analysis**

After developing indicated accrual rates, we evaluate the adequacy of the depreciation reserve balance (Table 6-2). In order to correct any imbalances in the depreciation reserve accounts, we first determine a theoretical level of where depreciation reserve should be. We calculate this based on the weighted age of the assets in each account, relative to our recommended average service lives. Without adjustment, to the extent that calculated reserve, Table 6-2, Column L, is greater than or less than the book reserve, Table 6-2, Column D, the Company will under- or over-recover, respectively, its depreciable plant investment. Differences between the calculated theoretical reserve and the book reserve can be attributed primarily to changes in life characteristics or historical rates which have not properly reflected life characteristics or changes in life characteristics. These changing life characteristics and the degree to which these changes are recognized and reflected in the depreciation rates directly affect the book reserves.

By subtracting the calculated depreciation reserve from the actual depreciation reserve, we determine the reserve excess or deficiency (Column M). Any amounts that have been over- or under-recovered should be amortized over the remaining life of the asset group. We calculate a reserve deficiency of \$56.4 million for production plant and a reserve excess of \$34.7 million for transmission, distribution and general plant at December 31, 2009. Because the Missouri Public Service Commission has a preference for whole life depreciation rates, we do not recommend using remaining life rates or any other amortization method to adjust the depreciation reserve at this time.

**Table 6-2  
Depreciation Reserve Analysis**

Line	[A] FERC Acct	[B] Description	[C] Plant in Service At 12/31/2009 \$	[D] Depreciation Reserve At 12/31/2009 \$	[E] Reserve Ratio [D] / [C]	[F] Average Age years	[G] Average Service Life	[H] Gross Salvage	[I] Cost of Removal	[J] Net Salvage	[K] Remaining Life	[L] Calculated Reserve	[M] Excess/ (Deficiency) [D] - [L]
1		Production Plant											
2		Steam Production Plant											
3	310	Land and Land Rights	939,473										
4	311-316	Asbury	149,946,466	40,318,934	26.9%							112,556,869	(72,237,935)
5	311-316	Riverton	46,083,525	28,774,554	62.4%							39,512,335	(10,737,782)
6	311-316	Iatan 1	133,285,135	36,078,829	27.1%							39,983,640	(3,904,810)
7	311-316	Iatan 2											
8	311-316	Plum Point											
9		Total Steam Production	330,254,599	105,172,317								192,052,844	(86,880,528)
10		Hydro Production Plant											
11	310	Land and Land Rights	226,488										
12	331-335	Ozark Beach	5,509,271	2,486,302	45.1%							4,960,422	(2,474,119)
13		Total Hydro Production	5,735,759	2,486,302								192,052,844	(2,474,119)
14		Other Production Plant											
15	340	Land and Land Rights	1,025,253										
16	341-346	State Line Combined Cycle	162,639,173	28,081,610	17.3%							22,636,284	5,445,325
17	341-346	State Line CT	42,673,128	17,852,776	41.8%							(3,323,550)	21,176,326
18	341-346	Energy Center Unit 1&2	39,234,417	29,086,085	74.1%							20,212,950	8,873,135
19	341-347	Energy Center Unit 3&4 (FT8)	54,061,994	2,712,381	5.0%							6,481,203	(3,768,823)
20	341-348	Riverton CT	51,155,505	9,760,554	19.1%							8,666,586	1,093,968
21		Total Other Production	350,789,470	87,493,405								54,673,475	32,819,931
22		Total Production Plant	686,779,828	195,152,025	28.4%							438,779,163	(56,534,716)
23		Transmission Plant											
24	350	Land and Land Rights	8,985,871										
25	352	Structures and Improvements	2,891,646	1,116,705	38.6%	16.9	55	0%	0%	0%	40.3	777,923	338,782
26	353	Station Equipment	89,559,756	33,370,653	37.3%	16.3	52	0%	-13%	-13%	38.4	25,686,730	7,683,923
27	354	Towers and Fixtures	799,508	772,934	96.7%	59.8	65	0%	0%	0%	14.6	711,099	61,835
28	355	Poles and Fixtures	39,748,752	15,828,439	39.8%	14.5	55	245%	-275%	-30%	41.0	12,305,356	3,523,083
29	356	Overhead Conductors and Devices	61,449,854	18,389,391	29.9%	17.9	58	151%	-183%	-32%	42.9	21,301,191	(2,911,800)
30	359	Roads and Trails											
31		Total Transmission Plant	203,435,387	69,478,122	34.2%							60,782,299	8,695,823

**Table 6-2  
Depreciation Reserve Analysis**

Line	[A] FERC Acct	[B] Description	[C] Plant in Service At 12/31/2009 \$	[D] Depreciation Reserve At 12/31/2009 \$	[E] Reserve Ratio [D] / [C]	[F] Average Age years	[G] Average Service Life	[H] Gross Salvage	[I] Cost of Removal	[J] Net Salvage	[K] Remaining Life	[L] Calculated Reserve	[M] Excess/ (Deficiency) [D] - [L]
32		Distribution Plant											
33	360	Land and Land Rights	2,360,393	3,743,037	38.4%	20.6	64	0%	0%	0%	46.3	2,685,552	1,057,485
34	361	Structures and Improvements	9,756,326	27,212,036	37.3%	15.3	52	17%	-34%	-17%	40.8	12,224,466	14,987,570
35	362	Station Equipment	73,010,259	62,395,624	45.5%	13.5	46	88%	-188%	-100%	33.7	69,943,589	(7,547,965)
36	364	Poles, Towers and Fixtures	136,982,762	51,546,185	35.4%	14.5	59	91%	-191%	-100%	46.0	64,498,285	(12,952,100)
37	365	Overhead Conductors and Devices	145,684,661	9,335,602	32.7%	9.7	50	17%	-28%	-11%	41.2	5,564,994	3,770,608
38	366	Underground Conduit	28,565,405	19,089,710	36.3%	11.0	45	9%	-16%	-7%	37.3	9,244,706	9,845,004
39	367	Underground Conductors and Devices	52,594,929	30,719,356	34.6%	14.6	48	6%	-5%	1%	36.5	20,835,940	9,884,016
40	368	Line Transformers	88,765,104	33,344,987	51.0%	13.3	43	19%	-119%	-100%	30.2	38,690,746	(5,345,759)
41	369	Services	65,419,731	6,232,010	34.0%	16.7	43	0%	-4%	-4%	31.1	5,140,802	1,091,208
42	370	Meters	18,312,044	9,252,140	59.0%	12.1	28	13%	-55%	-42%	19.8	6,478,769	2,773,371
43	371	Installations on Customer Premises	15,685,879	5,132,435	35.6%	14.6	45	14%	-66%	-52%	34.8	4,914,293	218,142
44	373	Street Lighting and Signal Systems	14,418,926	258,003,121	39.8%							240,221,542	17,781,579
45		Total Distribution Plant	651,556,418	258,003,121	39.8%								
46		General Plant											
47	389	Land and Land Rights	679,466	5,944,294	62.6%	20.6	28	0%	0%	0%	10.9	5,685,106	259,188
48	390	Structures and Improvements	9,489,178	2,258,842	53.9%	9.7	20	0%	0%	0%	15.2	2,031,520	227,322
49	391.1	Office Furniture and Equipment	4,188,701	5,765,537	50.3%		10	8%	2%	10%		5,731,562	33,975
50	391.2	Computer Equipment*	11,463,123	6,776,560	85.3%	7.9	13	0%	2%	2%	7.7	3,155,609	3,620,951
51	392	Transportation Equipment	7,946,771	293,685	66.0%	18.4	40	0%	0%	0%	27.6	134,675	159,010
52	393	Stores Equipment	445,006	2,246,913	58.8%	21.4	20	0%	0%	0%	10.1	1,856,267	390,646
53	394	Tools, Shop and Garage Equipment	3,823,571	690,181	72.9%	20.9	46	4%	0%	4%	26.6	383,532	306,649
54	395	Laboratory Equipment	946,905	7,229,509	62.7%	9.5	17	0%	0%	0%	8.7	5,613,976	1,615,533
55	396	Power Operated Equipment	11,526,119	4,930,474	48.8%	16.7	27	0%	0%	0%	16.0	3,429,288	1,501,186
56	397	Communication Equipment	10,108,470	127,270	67.5%	16.0	32	0%	0%	0%	21.1	64,019	63,251
57	398	Miscellaneous Equipment	188,505	36,263,265	59.6%							28,085,553	8,177,711
58		Total General Plant	60,805,815	36,263,265	59.6%								
59		Total Transmission, Distribution, General	915,797,620	363,744,507	39.7%							329,089,395	34,655,113
60		Total Plant in Service @ 12/31/09	1,602,577,449	558,896,532	34.9%							767,868,558	(21,879,603)

\* Computer and Office Equipment are combined in CPR

## RECOMMENDED DEPRECIATION RATES

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THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

### 7.0 RECOMMENDED DEPRECIATION RATES

We summarize our recommended depreciation rates for unit property and mass property in Table 7-1.

#### 7.1 *Unit Property Depreciation Rates*

Our recommended composite depreciation rate for Steam Production Plant is 3.79%, an increase from the existing rate of 1.77%. This increase is primarily due to the effect of switching to the appropriate life span treatment of unit property. For Hydraulic Production Plant, the composite depreciation rate increases from 1.62% to 2.13%. For Other Production Plant, the composite rate decrease from 2.51% to 1.97%. Both Hydraulic and Other Production Plant have the effect of switching to the appropriate life span treatment offset by the extension of final retirement dates. For all generation facilities, the composite rate increases from 2.15% to 2.99%, resulting in an estimated increase in depreciation expense of \$5.7 million.

We further recommend establishing depreciation rates for Iatan 2 and Plum Point at 2.10%. This rate should be used for all accounts at the time these facilities are commercially in service.

#### 7.2 *Mass Property Depreciation Rates*

For transmission accounts, the composite rate decreases from 2.41% to 2.24%. This results in an estimated decrease in depreciation expense of \$343,392. The composite rate for distribution accounts decreases from 3.63% to 3.26%, which results in an estimated decrease in depreciation expense of \$2.4 million. For general plant accounts, the composite rate decreases from 5.88% to 5.75%, a decrease of \$74,112 in depreciation expense. We attribute these decreases to two main factors: first, we find a general trend of longer average service lives compared to the current ASLs, and second, we find the net salvage requirements are less negative (reduction in cost of removal) than the existing allowance.

#### 7.3 *Summary*

Overall, our recommended depreciation rates are 6% higher than existing, based on plant balances at December 31, 2009. The overall impact is an increase in annual depreciation expense of \$2.9 million. This increase is composed of a \$5.7 million increase in unit property depreciation accrual primarily attributable to switching from mass property treatment to life span treatment, and a \$2.8 million decrease in mass property depreciation accrual due to changes in ASL and net salvage requirements.

# RECOMMENDED DEPRECIATION RATES

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

**Table 7-1**  
**Recommended Depreciation Rates**

Line	[A] Description	[B] FERC Acct	[C] Plant in Service At 12/31/2009 \$	[D] Depreciation Rate		[E] Existing Life Net Salvage Rate		[F] Depreciation Expense		[G] Depreciation Rate		[H] Life Net Salvage Rate		[I] Depreciation Expense		[J] Depreciation Expense		[L] Change in Expense \$
				%	%	%	%	%	%	%	%	%	%	%	%	%	%	
1	Production Plant																	
2	Steam Production Plant																	
3	Land and Land Rights	310	939,473															
4	Asbury	311-316	149,946,466	1.75%	1.74%	-0.02%	2,628,768	4.57%	4.37%	-0.20%	6,857,182	4,228,413						
5	Riverton	311-316	46,083,525	1.62%	1.61%	-0.01%	746,562	3.18%	3.03%	-0.14%	1,464,427	717,865						
6	Iatan 1	311-316	133,285,135	1.84%	1.80%	-0.04%	2,454,199	3.12%	2.98%	-0.14%	4,159,280	1,705,081						
7	Iatan 2	311-316						2.10%	2.00%	-0.10%								
8	Plum Point							2.10%	2.00%	-0.10%								
9	Total Steam Production		330,254,599	1.77%			5,829,530	3.79%			12,480,889	6,651,359						
10	Hydro Production Plant																	
11	Land and Land Rights	310	226,488															
12	Ozark Beach	331-335	5,509,271	1.62%	1.62%	0.00%	89,365	2.13%	2.02%	-0.11%	117,457	28,092						
13	Total Hydro Production		5,735,759	1.62%			89,365	2.13%			117,457	28,092						
14	Other Production Plant																	
15	Land and Land Rights	340	1,025,253															
16	State Line Combined Cycle	341-346	162,639,173	2.86%	2.86%	0.00%	4,651,480	2.14%	2.22%	0.08%	3,486,009	(1,165,471)						
17	State Line CT	341-346	42,673,128	2.22%	2.21%	-0.01%	945,481	3.25%	3.33%	0.08%	1,388,403	442,922						
18	Energy Center Unit 1&2	341-346	39,234,417	2.15%	2.15%	0.00%	844,116	2.28%	2.35%	0.06%	895,319	51,203						
19	Energy Center Unit 3&4 (FT8)	341-347	54,061,994	2.11%	2.11%	0.00%	1,141,733	1.97%	2.05%	0.08%	1,065,287	(76,446)						
20	Riverton CT	341-348	51,155,505	2.37%	2.37%	0.00%	1,210,498	1.97%	2.02%	0.05%	1,008,002	(202,496)						
21	Total Other Production		350,789,470	2.51%			8,793,307	2.24%			7,843,019	(950,288)						
22	Total Production Plant		686,779,828	2.15%			14,712,202	2.99%			20,441,366	5,729,164						
23	Transmission Plant																	
24	Land and Land Rights	350	8,985,871															
25	Structures and Improvements	352	2,891,646	2.09%	1.82%	-0.27%	60,435	1.82%	1.82%	0.00%	52,628	(7,807)						
26	Station Equipment	353	89,559,756	2.20%	2.00%	-0.20%	1,970,315	2.17%	1.92%	-0.25%	1,943,447	(26,868)						
27	Towers and Fixtures	354	799,508	1.54%	1.54%	-0.38%	15,351	1.54%	1.54%	0.00%	12,312	(3,038)						
28	Poles and Fixtures	355	39,748,752	3.33%	1.67%	-1.66%	1,323,633	2.36%	1.82%	-0.54%	938,071	(385,563)						
29	Overhead Conductors and Devices	356	61,449,854	2.15%	1.54%	-0.61%	1,321,172	2.28%	1.72%	-0.56%	1,401,057	79,885						
30	Roads and Trails																	
31	Total Transmission Plant		203,435,387	2.41%			4,690,906	2.24%			4,347,514	(343,392)						

# RECOMMENDED DEPRECIATION RATES

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

**Table 7-1 continued**  
**Recommended Depreciation Rates**

Line	[A] Description	[B] FERC Acct	[C] Plant in Service At 12/31/2009	[E] Existing			[G] Depreciation			[J] Recommended			[L] Change in Expense
				[D] Depreciation Rate	[E] Life Rate	[F] Net Salvage Rate	[G] Depreciation Expense	[H] Depreciation Rate	[I] Life Rate	[J] Net Salvage Rate	[K] Depreciation Expense		
32	Distribution Plant												
33	Land and Land Rights	360	2,360,393										(50,733)
34	Structures and Improvements	361	9,756,326	2.08%	1.67%	-0.41%	202,932	1.56%	1.56%	0.00%	152,199	152,199	262,837
35	Station Equipment	362	73,010,259	1.89%	2.22%	0.33%	1,379,894	2.25%	1.92%	-0.33%	1,642,731	1,642,731	-
36	Poles, Towers and Fixtures	364	136,982,762	4.35%	2.17%	-2.18%	5,958,750	4.35%	2.17%	-2.18%	5,958,750	5,958,750	-
37	Overhead Conductors and Devices	365	145,684,661	3.77%	1.89%	-1.88%	5,492,312	3.39%	1.69%	-1.70%	4,938,710	4,938,710	(553,602)
38	Underground Conduit	366	28,565,405	3.92%	2.70%	-1.22%	1,119,764	2.22%	2.00%	-0.22%	634,152	634,152	(485,612)
39	Underground Conductors & Devices	367	52,594,929	3.59%	3.13%	-0.46%	1,888,158	2.38%	2.22%	-0.16%	1,251,759	1,251,759	(636,399)
40	Line Transformers	368	88,765,104	2.78%	2.22%	-0.56%	2,467,670	2.06%	2.08%	0.02%	1,828,561	1,828,561	(639,109)
41	Services	369	65,419,731	5.00%	2.50%	-2.50%	3,270,987	4.65%	2.33%	-2.32%	3,042,017	3,042,017	(228,969)
42	Meters	370	18,312,044	2.27%	2.27%	0.00%	415,683	2.42%	2.33%	-0.09%	443,151	443,151	27,468
43	Installations on Customer Premises	371	15,685,879	5.80%	4.00%	-1.80%	909,781	5.07%	3.57%	-1.50%	795,274	795,274	(114,507)
44	Street Lighting and Signal Systems	373	14,418,926	3.13%	2.08%	-1.05%	451,312	3.38%	2.22%	-1.16%	487,360	487,360	36,047
45	Total Distribution Plant		651,556,418	3.63%			23,557,242	3.26%			21,174,665	21,174,665	(2,382,578)
46	General Plant												
47	Land and Land Rights	389	679,466										
48	Structures and Improvements	390	9,489,178	2.75%	2.50%	-0.25%	260,952	3.57%	3.57%	0.00%	338,764	338,764	77,811
49	Office Furniture and Equipment	391.1	4,188,701	5.00%	5.00%	0.00%	209,435	5.00%	5.00%	0.00%	209,435	209,435	-
50	Computer Equipment	391.2	11,463,123	10.00%	10.00%	0.00%	1,146,312	9.00%	10.00%	1.00%	1,031,681	1,031,681	(114,631)
51	Transportation Equipment	392	7,946,771	7.08%	8.33%	1.25%	562,631	7.54%	7.69%	0.15%	599,187	599,187	36,555
52	Stores Equipment	393	445,006	3.17%	3.33%	0.16%	14,107	2.50%	2.50%	0.00%	11,125	11,125	(2,982)
53	Tools, Shop and Garage Equipment	394	3,823,571	4.50%	5.00%	0.50%	172,061	5.00%	5.00%	0.00%	191,179	191,179	19,118
54	Laboratory Equipment	395	946,905	2.63%	2.63%	0.00%	24,904	2.09%	2.17%	0.08%	19,790	19,790	(5,113)
55	Power Operated Equipment	396	11,526,119	6.33%	6.67%	0.34%	729,603	5.88%	5.88%	0.00%	677,736	677,736	(51,868)
56	Communication Equipment	397	10,108,470	4.00%	4.00%	0.00%	404,339	3.70%	3.70%	0.00%	374,013	374,013	(30,325)
57	Miscellaneous Equipment	398	186,505	4.55%	4.55%	0.00%	8,577	3.13%	3.13%	0.00%	5,900	5,900	(2,677)
58	Total General Plant		60,805,815	5.88%			3,532,921	5.75%			3,458,810	3,458,810	(74,112)
59	Total Plant in Service @ 12/31/09		1,602,577,449	2.93%			46,493,271	3.11%			49,422,354	49,422,354	2,929,083

**APPENDIX**

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THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

APPENDIX  
UNIT PROPERTY ANALYSIS

## APPENDIX

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THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

### ***Unit Property Analysis***

The unit property analysis for each plant is presented in the following sections. The analysis for each plant is done by account on a whole life basis, including recognition of interim and forecast additions and retirements and final net salvage. The remaining life portion of these analyses are summarized by plant and adjusted to reflect accumulated depreciation to determine a forecast remaining life balance. The recommended whole life results in this Appendix are carried forward to Table 5-1 in the body of the report.



Summary by Plant  
The Empire District Electric Company  
**Asbury Plant**

Account	Description	Direct Investment 2009\$	Depreciation Rate
310	Land	0	0.00%
311	Structure & Improvements	13,777,714	2.79%
312	Boiler Plant Equipment	105,624,762	5.26%
314	Turbo Generator Equipment	22,407,288	2.82%
315	Accessory Electric Equipment	6,025,504	3.35%
316	Misc Power Equipment	2,111,227	3.94%
<b>Total</b>		149,946,495	<span style="border: 1px solid black; padding: 2px;">4.57%</span> whole life weighted average rate

**Remaining Life Depreciation Rate Calculation**

Per Books Balance 12/31/09	149,946,495
Forecast Interim Additions	188,911,424
Forecast Gross Salvage Value	15,928,042
Forecast Less Cost of Removal	31,856,084
Forecast Net Salvage Value	(15,928,042)
Forecast Total to be Recovered with COR	354,785,961
Forecast Total to be Recovered w/o COR	322,929,877
Accumulated Depreciation (2009 EOY)	(40,313,340)
Forecast Remaining Life Balance with COR	314,472,621
Forecast Remaining Life Balance w/o COR	282,616,537
Forecast Plant Balances	5,300,540,177
Remaining Life Rate with COR	5.93%
Remaining Life Rate w/o COR	5.33%
Reserve Variance with COR	(72,089,638)

The Empire District Electric Company

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1970  
 Retirement Date 2030  
 Service Life, Yrs 60

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis  
 Unit Property: Steam Production, Asbury Plant

Historical and Forecast Plant Additions & Balances  
 Accou 311 Structures & Improvements

Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year		Vintage Year	Advance Additions	Advance Retirements	Additions	Retirements			
			Balance	Additions								Retirements
1	1970	60	733,336	-	-	10,008	-	-	733,336	-	733,336	
2	1971	59	8,946	-	-	-	-	-	8,946	-	742,282	
3	1972	58	1,192	-	-	-	-	-	1,192	-	743,474	
4	1973	57	-	-	-	-	-	-	-	-	743,474	
5	1974	56	-	-	-	-	-	-	-	-	743,474	
6	1975	55	-	-	-	-	-	-	-	-	743,474	
7	1976	54	-	-	-	-	-	-	-	-	743,474	
8	1977	53	-	-	-	-	-	-	-	-	743,474	
9	1978	52	120,977	-	-	-	-	-	120,977	-	864,451	
10	1979	51	41,006	-	-	-	-	-	41,006	-	905,457	
11	1980	50	29,783	-	-	-	-	-	29,783	-	935,240	
12	1981	49	5,687	-	-	-	-	-	5,687	-	940,927	
13	1982	48	1,644	-	-	-	-	-	1,644	-	942,571	
14	1983	47	-	-	-	-	-	-	-	-	942,571	
15	1984	46	25,765	-	-	6,677	-	-	25,765	-	968,336	
16	1985	45	-	-	-	-	-	-	-	-	968,336	
17	1986	44	2,392,445	-	-	6,600	-	-	2,392,445	-	3,360,781	
18	1987	43	91,974	-	-	9,364	-	-	91,974	-	3,452,755	
19	1988	42	12,344	-	-	-	-	-	12,344	-	3,465,099	
20	1989	41	-	-	-	-	-	-	-	-	3,465,099	
21	1990	40	8,888,648	-	-	3,558	-	-	8,888,648	-	12,353,747	
22	1991	39	29,680	-	-	-	-	-	29,680	-	12,383,427	
23	1992	38	99,952	-	-	43,081	-	-	99,952	-	12,483,379	
24	1993	37	235,141	-	-	-	-	-	235,141	-	12,718,520	
25	1994	36	60,961	-	-	-	-	-	60,961	-	12,779,481	
26	1995	35	93,854	-	-	-	-	-	93,854	-	12,873,335	
27	1996	34	134,029	-	-	-	-	-	134,029	-	13,007,364	
28	1997	33	180,858	-	-	-	-	-	180,858	-	13,188,222	
29	1998	32	72,408	-	-	-	-	-	72,408	-	13,260,630	
30	1999	31	-	-	59,445	-	-	-	-	59,445	13,201,185	
31	2000	30	-	68,843	4,600	-	-	-	68,843	4,600	13,265,428	
32	2001	29	-	46,200	-	2,415	-	-	46,200	-	13,311,628	
33	2002	28	-	102,502	-	-	-	-	102,502	-	13,414,130	
34	2003	27	-	11,386	-	-	-	-	11,386	-	13,425,516	
35	2004	26	-	119,746	10,235	-	-	-	119,746	10,235	13,535,027	
36	2005	25	-	75,007	-	-	-	-	75,007	-	13,610,034	
37	2006	24	-	44,811	-	-	-	-	44,811	-	13,654,845	
38	2007	23	-	67,255	2,415	-	329	-	67,584	2,415	13,720,014	
39	2008	22	-	-	5,008	-	62,708	-	62,708	5,008	13,777,714	
40	2009	21	-	-	-	-	-	-	-	-	13,777,714	
41	Total		\$ 13,260,630	\$ 535,750	\$ 81,703	\$ 81,703	\$ 63,037	\$ -	\$ 13,859,417	\$ 81,703	\$ -	\$ 290,889,424

42 Major Additions/Retirements

43	Routine Activity	\$ 598,787	\$ 81,703
44	Historical Interim Activity	0.21%	0.03%
45	Forecast Interim Activity	0.21%	0.03%

				Major Additions**	Major Retirements	
46	2010	20		28,361	3,870	13,802,205
47	2011	19		28,411	3,877	13,826,740
48	2012	18		28,462	3,884	13,851,318
49	2013	17		28,513	3,890	13,875,940
50	2014	16		28,563	3,897	13,900,606
51	2015	15	UNIT 2 RETIRES IN 2015	28,614	3,904	11,532,871
52	2016	14		23,740	3,239	11,553,372
53	2017	13		23,782	3,245	11,573,909
54	2018	12		23,825	3,251	11,594,483
55	2019	11		23,867	3,257	11,615,093
56	2020	10		23,909	3,262	11,635,740
57	2021	9		23,952	3,268	11,656,424
58	2022	8		23,994	3,274	11,677,144
59	2023	7		24,037	3,280	11,697,901
60	2024	6		24,080	3,286	11,718,695
61	2025	5		24,123	3,291	11,739,526
62	2026	4		24,165	3,297	11,760,395
63	2027	3		24,208	3,303	11,781,300
64	2028	2		24,251	3,309	11,802,242
65	2029	1		24,295	3,315	11,823,222
66	2030	0		-	-	-
				\$ -	\$ 14,366,570	\$ 150,903
					(11,823,222)	\$ 535,308,550

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

\*\* From 2009 capital budget

The Empire District Electric Company  
 Unit Property Depreciation Rate Analysis  
 Unit Property: Steam Production, Asbury Plant  
 Historical and Forecast Plant Additions & Balances  
 Accou 311 Structures & Improvements

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1970  
 Retirement Date 2030  
 Service Life, Yrs 60  
 Initial Plant Balance

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

**Whole Life Depreciation Rate Calculation**

Historical Additions	13,859,417
Forecast Additions	507,153
Total Additions	14,366,570
Gross Salvage Value	591,161
Less Cost of Removal	1,182,322
Net Salvage Value	(591,161)
Total to be Recovered	14,957,731
Forecast Plant Balances	535,308,550
Whole Life Accrual Rate	2.79%
Cost of Removal Accrual Rate	0.22%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.57%
Depreciable Service Life, years	35.8

**Remaining Life Depreciation Rate Calculation**

Account Balance 12/31/09	13,777,714
Forecast Additions	507,153
Gross Salvage Value	591,161
Less Cost of Removal	1,182,322
Net Salvage Value	(591,161)
Forecast Plant Balances	244,419,126

The Empire District Electric Company

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1970  
 Retirement Date 2030  
 Service Life, Yrs 60

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis  
 Unit Property: Steam Production, Asbury Plant

Historical and Forecast Plant Additions & Balances  
 Accou 312 Boiler Plant Equipment

Initial Plant Balance

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		
			Balance	Additions							
1	1970	60	12,597,910	-	3,484,551	-	-	12,597,910	-	12,597,910	
2	1971	59	248,135	-	-	-	-	248,135	-	12,846,045	
3	1972	58	67,779	-	-	-	-	67,779	-	12,913,824	
4	1973	57	56,263	-	18,179	-	-	56,263	-	12,970,087	
5	1974	56	207,476	-	127,723	-	-	207,476	-	13,177,563	
6	1975	55	61,298	-	6,335	-	-	61,298	-	13,238,861	
7	1976	54	224,592	-	47,296	-	-	224,592	-	13,463,453	
8	1977	53	208,546	-	71,046	-	-	208,546	-	13,671,999	
9	1978	52	394,454	-	22,409	-	-	394,454	-	14,066,453	
10	1979	51	3,845,385	-	154,106	-	-	3,845,385	-	17,911,838	
11	1980	50	150,595	-	-	-	-	150,595	-	18,062,433	
12	1981	49	288,683	-	192,950	-	-	288,683	-	18,351,116	
13	1982	48	263,675	-	54,077	-	-	263,675	-	18,614,791	
14	1983	47	347,742	-	77,382	-	-	347,742	-	18,962,533	
15	1984	46	300,303	-	222,695	-	-	300,303	-	19,262,836	
16	1985	45	77,137	-	-	-	-	77,137	-	19,339,973	
17	1986	44	1,346,623	-	3,957	-	-	1,346,623	-	20,686,596	
18	1987	43	1,593,575	-	787,069	-	-	1,593,575	-	22,280,171	
19	1988	42	1,526,147	-	59,093	-	-	1,526,147	-	23,806,318	
20	1989	41	872,427	-	176,494	-	-	872,427	-	24,678,745	
21	1990	40	12,451,299	-	35,441	-	-	12,451,299	-	37,130,044	
22	1991	39	712,943	-	149,625	-	-	712,943	-	37,842,987	
23	1992	38	798,020	-	32,439	-	-	798,020	-	38,641,007	
24	1993	37	1,286,297	-	246,644	-	-	1,286,297	-	39,927,304	
25	1994	36	1,297,618	-	11,037	-	-	1,297,618	-	41,224,922	
26	1995	35	1,127,004	-	1,315	-	-	1,127,004	-	42,351,926	
27	1996	34	3,035,892	-	364,245	-	-	3,035,892	-	45,387,818	
28	1997	33	1,115,228	-	124,481	-	-	1,115,228	-	46,503,046	
29	1998	32	2,318,768	-	26,168	-	-	2,318,768	-	48,821,814	
30	1999	31	3,889,558	2,199,465	17,000	-	-	3,889,558	2,199,465	50,511,907	
31	2000	30	1,819,015	116,307	-	-	-	1,819,015	116,307	52,214,615	
32	2001	29	1,221,566	-	10,456	-	-	1,221,566	-	53,436,181	
33	2002	28	10,836,668	-	141,120	-	-	10,836,668	-	64,272,849	
34	2003	27	942,978	446,115	-	-	-	942,978	446,115	64,769,712	
35	2004	26	1,282,373	1,944,362	-	-	-	1,282,373	1,944,362	64,107,723	
36	2005	25	4,623,075	-	-	-	-	4,623,075	-	68,730,798	
37	2006	24	477,876	-	-	1,256	-	479,132	-	69,209,930	
38	2007	23	188,334	1,880,069	-	5,083,485	-	5,271,819	1,880,069	72,601,680	
39	2008	22	-	79,015	-	32,601,224	-	32,601,224	79,015	105,123,889	
40	2009	21	-	-	-	500,873	-	500,873	-	105,624,762	
41	Total		\$ 48,821,814	\$ 25,281,443	\$ 6,665,333	\$ 6,665,333	\$ 38,186,838	\$ -	\$ 112,290,095	\$ 6,665,333	\$ 148,938,460
42	Major Additions/Retirements										
43	2002			\$ 10,836,668							
44	2008			\$ 32,601,224							
45	Routine Activity			\$ 20,030,389	\$ 6,665,333						
46	Historical Interim Activity			1.34%	0.45%						
47	Forecast Interim Activity			1.34%	0.45%						
48	2010	20					Major Additions**		Major Retirements		108,000,053
49	2011	19					2,848,000		472,709		109,639,713
50	2012	18					2,123,000		483,340		112,789,036
51	2013	17					3,640,000		490,678		120,665,177
52	2014	16					8,380,913		504,772		122,010,156
53	2015	15	UNIT 2 RETIRES IN 2015				1,885,000		540,021		123,415,177
54	2016	14					114,000,000		546,040	1,346,623	124,761,820
55	2017	13						3,148,690	1,047,761		125,810,671
56	2018	12						3,176,945	1,057,164		126,867,836
57	2019	11						3,205,455	1,066,650		127,934,241
58	2020	10						3,234,220	1,076,222		129,010,463
59	2021	9						3,263,243	1,085,880		130,095,685
60	2022	8						3,292,527	1,095,625		131,191,210
61	2023	7						3,322,073	1,105,457		132,296,735
62	2024	6						3,351,885	1,115,377		133,412,260
63	2025	5						3,381,964	1,125,386		134,537,785
64	2026	4						3,412,314	1,135,485		135,673,310
65	2027	3						3,442,935	1,145,675		136,818,835
66	2028	2						3,473,831	1,155,956		137,974,360
67	2029	1						3,505,005	1,166,329		139,139,885
68	2030	0						3,536,458	1,176,795		140,316,410
							#####	\$ 159,037,641	\$ 25,258,654	#####	\$ 5,803,616,316

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

\*\* From 2009 capital budget, and \$114 million in 2015 for scrubber and Mercury MACT equipment (per IRP)

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 2030  
 Service Life, Yrs 60

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
 Accou 312 Boiler Plant Equipment Initial Plant Balance

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

**Whole Life Depreciation Rate Calculation**

Historical Additions	112,290,095
Forecast Additions	179,624,459
Total Additions	291,914,554
Gross Salvage Value	13,265,464
Less Cost of Removal	26,530,928
Net Salvage Value	(13,265,464)
Total to be Recovered	305,180,018
Forecast Plant Balances	5,803,616,316
Whole Life Accrual Rate	5.26%
Cost of Removal Accrual Rate	0.46%
Whole Life Accrual Rate (Excluding Cost of Removal)	4.80%
Depreciable Service Life, years	19.0

**Remaining Life Depreciation Rate Calculation**

Account Balance 12/31/08	105,624,762
Forecast Additions	179,624,459
Gross Salvage Value	13,265,464
Less Cost of Removal	26,530,928
Net Salvage Value	(13,265,464)
Forecast Plant Balances	4,314,277,856

The Empire District Electric Company

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1970  
 Retirement Date 2030  
 Service Life, Yrs 60

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Asbury Plant

Historical and Forecast Plant Additions & Balances

Accou 314 Turbogenerator Equipment

Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books				Adjustments				Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year Retirements	Advance Additions	Advance Retirements	Adjusted Transaction Year			
			Balance	Additions	Retirements				Additions	Retirements		
1	1970	60	8,192,128	-	-	1,530,807	-	-	8,192,128	-	-	8,192,128
2	1971	59	43,107	-	-	20,408	-	-	43,107	-	-	8,235,235
3	1972	58	1,450	-	-	-	-	-	1,450	-	-	8,236,685
4	1973	57	1,799	-	-	-	-	-	1,799	-	-	8,238,484
5	1974	56	-	-	-	-	-	-	-	-	-	8,238,484
6	1975	55	7,376	-	-	6,647	-	-	7,376	-	-	8,245,860
7	1976	54	7,330	-	-	-	-	-	7,330	-	-	8,253,190
8	1977	53	-	-	-	-	-	-	-	-	-	8,253,190
9	1978	52	-	-	-	-	-	-	-	-	-	8,253,190
10	1979	51	20,706	-	-	5,915	-	-	20,706	-	-	8,273,896
11	1980	50	-	-	-	-	-	-	-	-	-	8,273,896
12	1981	49	351,350	-	-	-	-	-	351,350	-	-	8,625,246
13	1982	48	-	-	-	-	-	-	-	-	-	8,625,246
14	1983	47	10,677	-	-	-	-	-	10,677	-	-	8,635,923
15	1984	46	10,598	-	-	-	-	-	10,598	-	-	8,646,521
16	1985	45	27,959	-	-	-	-	-	27,959	-	-	8,674,480
17	1986	44	3,889,736	-	-	94,803	-	-	3,889,736	-	-	12,564,216
18	1987	43	4,677	-	-	-	-	-	4,677	-	-	12,568,893
19	1988	42	226,936	-	-	176,141	-	-	226,936	-	-	12,795,829
20	1989	41	75,782	-	-	67,172	-	-	75,782	-	-	12,871,611
21	1990	40	4,931	-	-	-	-	-	4,931	-	-	12,876,542
22	1991	39	632,830	-	-	436,620	-	-	632,830	-	-	13,509,372
23	1992	38	11,469	-	-	7,432	-	-	11,469	-	-	13,520,841
24	1993	37	16,859	-	-	-	-	-	16,859	-	-	13,537,700
25	1994	36	73,804	-	-	-	-	-	73,804	-	-	13,611,504
26	1995	35	12,296	-	-	-	-	-	12,296	-	-	13,623,800
27	1996	34	910,483	-	-	-	-	-	910,483	-	-	14,534,283
28	1997	33	4,944,045	-	-	50,400	-	-	4,944,045	-	-	19,478,328
29	1998	32	1,501,271	-	-	-	-	-	1,501,271	-	-	20,979,599
30	1999	31	-	52,578	1,550,734	-	-	-	52,578	1,550,734	-	19,481,443
31	2000	30	-	1,241,408	-	-	-	-	1,241,408	-	-	20,722,851
32	2001	29	-	585,311	-	-	-	-	585,311	-	-	21,308,162
33	2002	28	-	811,453	-	-	-	-	811,453	-	-	22,119,615
34	2003	27	-	-	-	-	-	-	-	-	-	22,119,615
35	2004	26	-	-	1,004,131	-	-	-	-	1,004,131	-	21,115,484
36	2005	25	-	-	-	-	-	-	-	-	-	21,115,484
37	2006	24	-	352,969	-	-	210,874	-	563,843	-	-	21,679,327
38	2007	23	-	-	55,892	-	162,925	-	162,925	55,892	-	21,786,360
39	2008	22	-	-	146,067	-	1,280,744	-	1,280,744	146,067	-	22,921,037
40	2009	21	-	-	-	-	(513,749)	-	(513,749)	-	-	22,407,288
41	Total		\$ 20,979,599	\$ 3,043,719	\$ 2,756,824	\$ 2,756,824	\$ 1,140,794	\$ -	\$ 25,164,112	\$ 2,756,824	\$ -	\$ 557,150,838

42 Major Additions/Retirements

43	Routine Activity	\$ 4,184,513	\$ 2,756,824
44	Historical Interim Activity	0.75%	0.49%
45	Forecast Interim Activity	0.75%	0.49%

			Major Additions**		Major Retirements		
46	2010	20		168,291	110,873		22,464,706
47	2011	19		168,722	111,157		22,522,272
48	2012	18		169,155	111,442		22,579,985
49	2013	17		169,588	111,727		22,637,845
50	2014	16		170,023	112,014		22,695,854
51	2015	15	UNIT 2 RETIRES IN 2015	170,459	112,301	3,889,736	26,643,748
52	2016	14		200,109	131,835		26,712,022
53	2017	13		200,622	132,173		26,780,471
54	2018	12		201,136	132,512		26,849,096
55	2019	11		201,652	132,851		26,917,896
56	2020	10		202,168	133,192		26,986,873
57	2021	9		202,686	133,533		27,056,026
58	2022	8		203,206	133,875		27,125,357
59	2023	7		203,727	134,218		27,194,865
60	2024	6		204,249	134,562		27,264,551
61	2025	5		204,772	134,907		27,334,416
62	2026	4		205,297	135,253		27,404,460
63	2027	3		205,823	135,599		27,474,684
64	2028	2		206,350	135,947		27,545,087
65	2029	1		206,879	136,295		27,615,671
66	2030	0				(27,615,671)	-
				\$ -	\$ 29,029,026	\$ 5,303,091	\$1,076,956,724

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

\*\* From 2009 capital budget

The Empire District Electric Company  
 Unit Property Depreciation Rate Analysis  
 Unit Property: Steam Production, Asbury Plant  
 Historical and Forecast Plant Additions & Balances  
 Accou 314 Turbogenerator Equipment

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1970  
 Retirement Date 2030  
 Service Life, Yrs 60  
 Initial Plant Balance

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

**Whole Life Depreciation Rate Calculation**

Historical Additions	25,164,112
Forecast Additions	3,864,914
Total Additions	29,029,026
Gross Salvage Value	1,380,784
Less Cost of Removal	2,761,567
Net Salvage Value	(1,380,784)
Total to be Recovered	30,409,809
Forecast Plant Balances	1,076,956,724
Whole Life Accrual Rate	2.82%
Cost of Removal Accrual Rate	0.26%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.57%
Depreciable Service Life, years	35.4

**Remaining Life Depreciation Rate Calculation**

Account Balance - 12/31/08	22,407,288
Forecast Additions	3,864,914
Gross Salvage Value	1,380,784
Less Cost of Removal	2,761,567
Net Salvage Value	(1,380,784)
Forecast Plant Balances	519,805,886

The Empire District Electric Company

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1970  
 Retirement Date 2030  
 Service Life, Yrs 60

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Asbury Plant

Historical and Forecast Plant Additions & Balances

Accou 315 Accessory Electric Equipment

Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year		Vintage Year	Advance Additions	Advance Retirements	Additions	Retirements			
			Balance	Additions								Retirements
1	1970	60	1,382,577	-	1,705	-	-	1,382,577	-	1,382,577		
2	1971	59	-	-	-	-	-	-	-	1,382,577		
3	1972	58	-	-	-	-	-	-	-	1,382,577		
4	1973	57	-	-	-	-	-	-	-	1,382,577		
5	1974	56	4,334	-	-	-	-	4,334	-	1,386,911		
6	1975	55	-	-	-	-	-	-	-	1,386,911		
7	1976	54	-	-	-	-	-	-	-	1,386,911		
8	1977	53	-	-	-	-	-	-	-	1,386,911		
9	1978	52	-	-	-	-	-	-	-	1,386,911		
10	1979	51	-	-	-	-	-	-	-	1,386,911		
11	1980	50	736	-	-	-	-	736	-	1,387,647		
12	1981	49	2,375	-	-	-	-	2,375	-	1,390,022		
13	1982	48	-	-	-	-	-	-	-	1,390,022		
14	1983	47	-	-	-	-	-	-	-	1,390,022		
15	1984	46	-	-	-	-	-	-	-	1,390,022		
16	1985	45	-	-	-	-	-	-	-	1,390,022		
17	1986	44	836,455	-	-	-	-	836,455	-	2,226,477		
18	1987	43	7,082	-	-	-	-	7,082	-	2,233,559		
19	1988	42	6,227	-	-	-	-	6,227	-	2,239,786		
20	1989	41	-	-	-	-	-	-	-	2,239,786		
21	1990	40	-	-	-	-	-	-	-	2,239,786		
22	1991	39	-	-	-	-	-	-	-	2,239,786		
23	1992	38	-	-	-	-	-	-	-	2,239,786		
24	1993	37	3,638	-	-	-	-	3,638	-	2,243,424		
25	1994	36	-	-	-	-	-	-	-	2,243,424		
26	1995	35	10,190	-	-	-	-	10,190	-	2,253,614		
27	1996	34	37,644	-	-	-	-	37,644	-	2,291,258		
28	1997	33	15,577	-	-	-	-	15,577	-	2,306,835		
29	1998	32	7,290	-	-	-	-	7,290	-	2,314,125		
30	1999	31	-	-	-	-	-	-	-	2,314,125		
31	2000	30	-	-	-	-	-	-	-	2,314,125		
32	2001	29	-	-	-	-	-	-	-	2,314,125		
33	2002	28	-	-	-	-	-	-	-	2,314,125		
34	2003	27	-	-	-	-	-	-	-	2,314,125		
35	2004	26	-	-	-	-	-	-	-	2,314,125		
36	2005	25	-	-	-	-	-	-	-	2,314,125		
37	2006	24	-	-	-	-	-	-	-	2,314,125		
38	2007	23	-	11,085	1,705	-	-	11,085	1,705	2,323,505		
39	2008	22	-	-	-	-	-	-	-	4,175,847		
40	2009	21	-	-	-	-	1,849,657	1,849,657	-	1,852,342		
41	Total		\$ 2,314,125	\$ 11,085	\$ 1,705	\$ 1,705	\$ 1,849,657	\$ -	\$ 4,174,867	\$ 1,705	\$ 1,852,342	\$ 82,539,033

42 Major Additions/Retirements

43	Routine Activity	\$ 1,860,742	\$ 1,705
44	Historical Interim Activity	2.25%	0.00%
45	Forecast Interim Activity	2.25%	0.00%

			Major Additions**	Major Retirements			
46	2010	20	135,838	124	6,161,217		
47	2011	19	138,897	127	6,299,987		
48	2012	18	142,026	130	6,441,882		
49	2013	17	145,224	133	6,586,974		
50	2014	16	148,495	136	6,735,333		
51	2015	15	151,840	139	7,723,489		
52	2016	14	174,117	160	7,897,446		
53	2017	13	178,038	163	8,075,321		
54	2018	12	182,048	167	8,257,203		
55	2019	11	186,149	171	8,443,181		
56	2020	10	190,341	174	8,633,347		
57	2021	9	194,628	178	8,827,797		
58	2022	8	199,012	182	9,026,627		
59	2023	7	203,494	186	9,229,935		
60	2024	6	208,078	191	9,437,822		
61	2025	5	212,764	195	9,650,391		
62	2026	4	217,556	199	9,867,748		
63	2027	3	222,456	204	10,090,000		
64	2028	2	227,467	208	10,317,259		
65	2029	1	232,590	213	10,549,636		
66	2030	0	-	-	-		
			\$ -	\$ 7,865,926	\$ 5,087	(10,549,636)	\$ 250,791,627

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

\*\* From 2009 capital budget



The Empire District Electric Company  
 Unit Property Depreciation Rate Analysis  
 Unit Property: Steam Production, Asbury Plant  
 Historical and Forecast Plant Additions & Balances  
 Accou 315 Accessory Electric Equipment

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1970  
 Retirement Date 2030  
 Service Life, Yrs 60  
 Initial Plant Balance

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

**Whole Life Depreciation Rate Calculation**

Historical Additions	4,174,867
Forecast Additions	3,691,059
Total Additions	7,865,926
Gross Salvage Value	527,482
Less Cost of Removal	1,054,964
Net Salvage Value	(527,482)
Total to be Recovered	8,393,408

Forecast Plant Balances 250,791,627

Whole Life Accrual Rate	3.35%
Cost of Removal Accrual Rate	0.42%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.93%

Depreciable Service Life, years 29.9

**Remaining Life Depreciation Rate Calculation**

Account Balance - 12/31/08	6,025,504
Forecast Additions	3,691,059
Gross Salvage Value	527,482
Less Cost of Removal	1,054,964
Net Salvage Value	(527,482)

Forecast Plant Balances 168,252,594

The Empire District Electric Company

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1970  
 Retirement Date 2030  
 Service Life, Yrs 60

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Asbury Plant

Historical and Forecast Plant Additions & Balances

Accou 316 Miscellaneous Plant Equipment

Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year		Vintage Year	Advance Additions	Advance Retirements	Additions	Retirements			
			Balance	Additions								Retirements
1	1970	60	378,805	-	-	-	-	378,805	-	-	378,805	
2	1971	59	5,008	-	-	-	-	5,008	-	-	383,813	
3	1972	58	6,698	-	-	-	-	6,698	-	-	390,511	
4	1973	57	9,550	-	-	-	-	9,550	-	-	400,061	
5	1974	56	8,466	-	-	-	-	8,466	-	-	408,527	
6	1975	55	11,191	-	-	-	-	11,191	-	-	419,718	
7	1976	54	9,438	-	-	-	-	9,438	-	-	429,156	
8	1977	53	4,645	-	-	-	-	4,645	-	-	433,801	
9	1978	52	4,158	-	-	-	-	4,158	-	-	437,959	
10	1979	51	10,249	-	-	-	-	10,249	-	-	448,208	
11	1980	50	10,393	-	-	-	-	10,393	-	-	458,601	
12	1981	49	28,348	-	-	-	-	28,348	-	-	486,949	
13	1982	48	20,435	-	-	-	-	20,435	-	-	507,384	
14	1983	47	1,916	-	-	-	-	1,916	-	-	509,300	
15	1984	46	5,070	-	-	-	-	5,070	-	-	514,370	
16	1985	45	8,126	-	-	-	-	8,126	-	-	522,496	
17	1986	44	58,491	-	-	-	-	58,491	-	-	580,987	
18	1987	43	60,920	-	-	-	-	60,920	-	-	641,907	
19	1988	42	57,101	-	-	-	-	57,101	-	-	699,008	
20	1989	41	139,742	-	-	-	-	139,742	-	-	838,750	
21	1990	40	4,102	-	-	-	-	4,102	-	-	842,852	
22	1991	39	4,845	-	-	-	-	4,845	-	-	847,697	
23	1992	38	77,564	-	-	-	-	77,564	-	-	925,261	
24	1993	37	54,920	-	-	-	-	54,920	-	-	980,181	
25	1994	36	38,387	-	-	-	-	38,387	-	-	1,018,568	
26	1995	35	73,167	-	-	-	-	73,167	-	-	1,091,735	
27	1996	34	22,810	-	-	-	-	22,810	-	-	1,114,545	
28	1997	33	117,747	-	-	-	-	117,747	-	-	1,232,292	
29	1998	32	102,928	-	-	-	-	102,928	-	-	1,335,220	
30	1999	31	-	78,705	15,503	-	-	78,705	15,503	-	1,398,422	
31	2000	30	69,546	4,094	-	-	-	69,546	4,094	-	1,463,874	
32	2001	29	60,689	-	-	-	-	60,689	-	-	1,524,563	
33	2002	28	13,953	-	-	-	-	13,953	-	-	1,538,516	
34	2003	27	14,273	-	-	-	-	14,273	-	-	1,552,789	
35	2004	26	16,876	53,043	-	-	-	16,876	53,043	-	1,516,622	
36	2005	25	42,810	-	-	-	-	42,810	-	-	1,559,432	
37	2006	24	5,234	-	-	-	-	5,234	-	-	1,564,666	
38	2007	23	2,962	20,000	-	-	354,390	357,352	20,000	-	1,902,018	
39	2008	22	-	-	-	-	44,543	44,543	-	-	1,946,561	
40	2009	21	-	-	-	-	164,666	164,666	-	-	2,111,227	
41	Total		\$ 1,335,220	\$ 305,048	\$ 92,640	\$ 92,640	\$ 563,599	\$ -	\$ 2,203,867	\$ 92,640	\$ -	\$ 37,357,352

42 Major Additions/Retirements

43	Routine Activity	\$ 868,647	\$ 92,640
44	Historical Interim Activity	2.33%	0.25%
45	Forecast Interim Activity	2.33%	0.25%

				Major Additions**	Major Retirements	
46	2010	20		49,091	5,235	2,155,083
47	2011	19		50,111	5,344	2,199,849
48	2012	18		51,152	5,455	2,245,546
49	2013	17		52,214	5,569	2,292,191
50	2014	16		53,299	5,684	2,339,806
51	2015	15	UNIT 2 RETIRES IN 2015	54,406	5,802	2,446,901
52	2016	14		56,896	6,068	2,497,729
53	2017	13		58,078	6,194	2,549,613
54	2018	12		59,285	6,323	2,602,575
55	2019	11		60,516	6,454	2,656,637
56	2020	10		61,773	6,588	2,711,822
57	2021	9		63,056	6,725	2,768,154
58	2022	8		64,366	6,865	2,825,655
59	2023	7		65,703	7,007	2,884,351
60	2024	6		67,068	7,153	2,944,266
61	2025	5		68,461	7,301	3,005,426
62	2026	4		69,883	7,453	3,067,857
63	2027	3		71,335	7,608	3,131,584
64	2028	2		72,817	7,766	3,196,635
65	2029	1		74,329	7,927	3,263,037
66	2030	0				-
				\$ -	\$ 3,427,707	\$ 91,142,068

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

\*\* From 2009 capital budget

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 2030  
 Service Life, Yrs 60

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
 Accou 316 Miscellaneous Plant Equipment Initial Plant Balance

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

**Whole Life Depreciation Rate Calculation**

Historical Additions	2,203,867
Forecast Additions	1,223,840
Total Additions	3,427,707
Gross Salvage Value	163,152
Less Cost of Removal	326,304
Net Salvage Value	(163,152)
Total to be Recovered	3,590,859
Forecast Plant Balances	91,142,068
Whole Life Accrual Rate	3.94%
Cost of Removal Accrual Rate	0.36%
Whole Life Accrual Rate (Excluding Cost of Removal)	3.58%
Depreciable Service Life, years	25.4

**Remaining Life Depreciation Rate Calculation**

Account Balance - 12/31/08	2,111,227
Forecast Additions	1,223,840
Gross Salvage Value	163,152
Less Cost of Removal	326,304
Net Salvage Value	(163,152)
Forecast Plant Balances	53,784,716

Summary by Plant  
The Empire District Electric Company  
**Riverton Plant**

Account	Description	Direct Investment 2009\$	Depreciation Rate
310	Land	0	0.00%
311	Structure & Improvements	11,401,578	3.67%
312	Boiler Plant Equipment	23,866,305	3.08%
314	Turbo Generator Equipment	7,130,958	2.39%
315	Accessory Electric Equipment	1,570,339	1.85%
316	Misc Power Equipment	2,114,350	5.27%
<b>Total</b>		46,083,530	<span style="border: 1px solid black; padding: 2px;">3.18%</span> whole life weighted average rate

**Remaining Life Depreciation Rate Calculation**

Per Books Balance 12/31/09	46,083,530
Forecast Interim Additions	3,066,861
Forecast Gross Salvage Value	2,423,448
Forecast Less Cost of Removal	4,846,897
Forecast Net Salvage Value	(2,423,448)
Forecast Total to be Recovered with COR	51,573,839
Forecast Total to be Recovered w/o COR	46,726,942
Accumulated Depreciation (2009 EOY)	(28,774,554)
Forecast Remaining Life Balance with COR	22,799,286
Forecast Remaining Life Balance w/o COR	17,952,389
Forecast Plant Balances	379,292,566
Remaining Life Rate with COR	6.01%
Remaining Life Rate w/o COR	4.73%
Reserve Variance with COR	(10,744,830)

# APPENDIX

The Empire District Electric Company

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1950  
 Retirement Date 2015  
 Service Life, Yrs 65

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Riverton Plant

### Historical and Forecast Plant Additions & Balances Accou 311 Structures & Improvements

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E]			[F] Vintage Year Retirements	[G] [H]		[I] [J]		[K] Transfers and Adjustments	[L] End of Year Plant Balance*
			Reported Per Books				Adjustments		Adjusted Transaction Year			
			Beg Balance	Additions	Retirements		Advance Additions	Advance Retirements	Additions	Retirements		
1	1904	114	220,083	-	-	-	-	220,083	-	-	220,083	
2	1905	113	94,254	-	-	1,097	-	94,254	-	-	314,337	
3	1906	112	-	-	-	-	-	-	-	-	314,337	
4	1907	111	-	-	-	-	-	-	-	-	314,337	
5	1908	110	-	-	-	-	-	-	-	-	314,337	
6	1909	109	-	-	-	-	-	-	-	-	314,337	
7	1910	108	-	-	-	-	-	-	-	-	314,337	
8	1911	107	27,462	-	-	27,119	-	27,462	-	-	341,799	
9	1912	106	-	-	-	-	-	-	-	-	341,799	
10	1913	105	-	-	-	-	-	-	-	-	341,799	
11	1914	104	560	-	-	-	-	560	-	-	342,359	
12	1915	103	-	-	-	-	-	-	-	-	342,359	
13	1916	102	2,576	-	-	2,576	-	2,576	-	-	344,935	
14	1917	101	-	-	-	-	-	-	-	-	344,935	
15	1918	100	37,494	-	-	-	-	37,494	-	-	382,429	
16	1919	99	-	-	-	-	-	-	-	-	382,429	
17	1920	98	-	-	-	-	-	-	-	-	382,429	
18	1921	97	-	-	-	-	-	-	-	-	382,429	
19	1922	96	-	-	-	-	-	-	-	-	382,429	
20	1923	95	-	-	-	-	-	-	-	-	382,429	
21	1924	94	22,985	-	-	22,985	-	22,985	-	-	405,414	
22	1925	93	8,517	-	-	-	-	8,517	-	-	413,931	
23	1926	92	-	-	-	-	-	-	-	-	413,931	
24	1927	91	31,619	-	-	-	-	31,619	-	-	445,550	
25	1928	90	362	-	-	362	-	362	-	-	445,912	
26	1929	89	-	-	-	-	-	-	-	-	445,912	
27	1930	88	-	-	-	-	-	-	-	-	445,912	
28	1931	87	5,328	-	-	5,328	-	5,328	-	-	451,240	
29	1932	86	-	-	-	-	-	-	-	-	451,240	
30	1933	85	-	-	-	-	-	-	-	-	451,240	
31	1934	84	-	-	-	-	-	-	-	-	451,240	
32	1935	83	1,610	-	-	1,610	-	1,610	-	-	452,850	
33	1936	82	415	-	-	415	-	415	-	-	453,265	
34	1937	81	252,839	-	-	33,722	-	252,839	-	-	706,104	
35	1938	80	947	-	-	899	-	947	-	-	707,051	
36	1939	79	-	-	-	-	-	-	-	-	707,051	
37	1940	78	14,536	-	-	14,394	-	14,536	-	-	721,587	
38	1941	77	1,508	-	-	1,424	-	1,508	-	-	723,095	
39	1942	76	9	-	-	9	-	9	-	-	723,104	
40	1943	75	-	-	-	-	-	-	-	-	723,104	
41	1944	74	11,230	-	-	11,230	-	11,230	-	-	734,334	
42	1945	73	527	-	-	105	-	527	-	-	734,861	
43	1946	72	-	-	-	-	-	-	-	-	734,861	
44	1947	71	-	-	-	-	-	-	-	-	734,861	
45	1948	70	4,138	-	-	-	-	4,138	-	-	738,999	
46	1949	69	674	-	-	-	-	674	-	-	739,673	
47	1950	68	826,499	-	-	5,000	-	826,499	-	-	1,566,172	
48	1951	67	-	-	-	-	-	-	-	-	1,566,172	
49	1952	66	6,689	-	-	6,125	-	6,689	-	-	1,572,861	
50	1953	65	2,599	-	-	-	-	2,599	-	-	1,575,460	
51	1954	64	867,697	-	-	1,378	-	867,697	-	-	2,443,157	
52	1955	63	16,697	-	-	-	-	16,697	-	-	2,459,854	
53	1956	62	69,402	-	-	9,758	-	69,402	-	-	2,529,256	
54	1957	61	7,594	-	-	-	-	7,594	-	-	2,536,850	
55	1958	60	3,219	-	-	911	-	3,219	-	-	2,540,069	
56	1959	59	3,818	-	-	-	-	3,818	-	-	2,543,887	
57	1960	58	9,565	-	-	800	-	9,565	-	-	2,553,452	
58	1961	57	100	-	-	-	-	100	-	-	2,553,552	
59	1962	56	6,376	-	-	-	-	6,376	-	-	2,559,928	
60	1963	55	4,401	-	-	2,942	-	4,401	-	-	2,564,329	
61	1964	54	-	-	-	-	-	-	-	-	2,564,329	
62	1965	53	7,966	-	-	-	-	7,966	-	-	2,572,295	
63	1966	52	12,542	-	-	-	-	12,542	-	-	2,584,837	
64	1967	51	3,623	-	-	1,939	-	3,623	-	-	2,588,460	
65	1968	50	-	-	-	-	-	-	-	-	2,588,460	
66	1969	49	7,423	-	-	2,278	-	7,423	-	-	2,595,883	
67	1970	48	1,854	-	-	-	-	1,854	-	-	2,597,737	
68	1971	47	-	-	-	-	-	-	-	-	2,597,737	
69	1972	46	2,934	-	-	-	-	2,934	-	-	2,600,671	
70	1973	45	20,437	-	-	19,857	-	20,437	-	-	2,621,108	
71	1974	44	1,210	-	-	-	-	1,210	-	-	2,622,318	
72	1975	43	2,046	-	-	-	-	2,046	-	-	2,624,364	
73	1976	42	4,148	-	-	814	-	4,148	-	-	2,628,512	
74	1977	41	-	-	-	-	-	-	-	-	2,628,512	
75	1978	40	7,009	-	-	3,717	-	7,009	-	-	2,635,521	
76	1979	39	95,519	-	-	94,927	-	95,519	-	-	2,731,040	

# APPENDIX

Schedule TJS-2

The Empire District Electric Company

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1950  
 Retirement Date 2015  
 Service Life, Yrs 65

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Riverton Plant

### Historical and Forecast Plant Additions & Balances Accou 311 Structures & Improvements

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
77	1980	38	62,039	-	2,787	-	-	62,039	-	2,793,079		
78	1981	37	12,705	-	12,705	-	-	12,705	-	2,805,784		
79	1982	36	94,697	-	1,010	-	-	94,697	-	2,900,481		
80	1983	35	82,733	-	8,295	-	-	82,733	-	2,983,214		
81	1984	34	33,019	-	21,761	-	-	33,019	-	3,016,233		
82	1985	33	71,410	-	40,326	-	-	71,410	-	3,087,643		
83	1986	32	5,738	-	3,841	-	-	5,738	-	3,093,381		
84	1987	31	92,459	-	-	-	-	92,459	-	3,185,840		
85	1988	30	256,108	-	-	-	-	256,108	-	3,441,948		
86	1989	29	-	-	-	-	-	-	-	3,441,948		
87	1990	28	2,349,529	-	4,658	-	-	2,349,529	-	5,791,477		
88	1991	27	44,572	-	10,437	-	-	44,572	-	5,836,049		
89	1992	26	61,592	-	-	-	-	61,592	-	5,897,641		
90	1993	25	118,636	-	118,636	-	-	118,636	-	6,016,277		
91	1994	24	288,189	-	110,975	-	-	288,189	-	6,304,466		
92	1995	23	90,731	-	-	-	-	90,731	-	6,395,197		
93	1996	22	99,274	-	2,671	-	-	99,274	-	6,494,471		
94	1997	21	1,366,201	-	215,787	-	-	1,366,201	-	7,860,672		
95	1998	20	-	-	-	-	-	-	-	7,860,672		
96	1999	19	-	488,258	3,229	12,597	-	488,258	3,229	8,345,701		
97	2000	18	-	77,561	358,573	-	-	77,561	358,573	8,064,689		
98	2001	17	-	168,962	-	5,592	-	168,962	-	8,233,651		
99	2002	16	-	240,314	-	-	-	240,314	-	8,473,965		
100	2003	15	-	12,250	52,221	-	-	12,250	52,221	8,433,994		
101	2004	14	-	-	-	-	-	-	-	8,433,994		
102	2005	13	-	99,376	-	-	9,063	108,439	-	8,542,433		
103	2006	12	-	272,593	421,427	-	-	272,593	421,427	8,393,599		
104	2007	11	-	2,739,512	9,758	-	-	2,739,512	9,758	11,123,353		
105	2008	10	-	9,364	591	-	27,952	37,316	591	11,399,769		
106	2009	9	-	1,809	-	-	-	1,809	-	11,401,578		
107	Total		\$ 7,860,672	\$ 4,109,999	\$ 845,799	\$ 845,799	\$ 37,015	\$ -	\$ 12,007,686	\$ 845,799	\$ 239,691	\$ 285,356,968

108	Major Additions/Retirements			
109	2009	\$ -		
110	Routine Activity	\$ 4,147,014	\$ 845,799	
111	Historical Interim Activity	1.45%	0.30%	
112	Forecast Interim Activity	1.45%	0.30%	

**Major Additions\*\***

113	2010	8			165,696	33,794		11,533,480
114	2011	7			167,613	34,185		11,666,907
115	2012	6			169,552	34,581		11,801,878
116	2013	5			171,513	34,981		11,938,411
117	2014	4			173,498	35,385		12,076,523
118	2015	3			175,505	35,795		12,216,233
119	2016	2			177,535	36,209		12,357,559
120	2017	1			179,589	36,628		12,500,520
121	2018	0						
							(12,500,520)	
					\$ 13,388,187	\$ 1,127,357		\$ 381,448,481

\* Through vintage year 1999 the balances are 1999 remaining plant balances.  
 \*\* From 2009 capital budget

**Whole Life Depreciation Rate Calculation**

Historical Additions	12,007,686
Forecast Additions	1,380,501
Total Additions	13,388,187
Gross Salvage Value	625,026
Less Cost of Removal	1,250,052
Net Salvage Value	(625,026)
Total to be Recovered	14,013,213

Forecast Plant Balances 381,448,481

Whole Life Accrual Rate 3.67%  
 Cost of Removal Accrual Rate 0.33%  
 Whole Life Accrual Rate (Excluding Cost of Removal) 3.35%

Depreciable Service Life, years 27.2

**Remaining Life Depreciation Rate Calculation**

Account Balance 12/31/09	11,401,578
Forecast Additions	1,380,501
Gross Salvage Value	625,026
Less Cost of Removal	1,250,052
Net Salvage Value	(625,026)

Forecast Plant Balances 96,091,513

# APPENDIX

The Empire District Electric Company

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1950  
 Retirement Date 2015  
 Service Life, Yrs 65

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Riverton Plant

Historical and Forecast Plant Additions & Balances  
 Accou 312 Boiler Plant Equipment

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E]			[F] Vintage Year Retirements	[G] [H]		[I] [J]		[K] Transfers and Adjustments	[L] End of Year Plant Balance*
			Reported Per Books				Adjustments		Adjusted Transaction Year			
			Beg Balance	Additions	Retirements		Advance Additions	Advance Retirements	Additions	Retirements		
1	1904	114	-	-	-	-	-	-	-	-	-	
2	1905	113	-	-	-	-	-	-	-	-	-	
3	1906	112	-	-	-	-	-	-	-	-	-	
4	1907	111	-	-	-	-	-	-	-	-	-	
5	1908	110	-	-	-	-	-	-	-	-	-	
6	1909	109	-	-	-	-	-	-	-	-	-	
7	1910	108	-	-	-	-	-	-	-	-	-	
8	1911	107	-	-	-	-	-	-	-	-	-	
9	1912	106	-	-	-	-	-	-	-	-	-	
10	1913	105	-	-	-	-	-	-	-	-	-	
11	1914	104	-	-	-	-	-	-	-	-	-	
12	1915	103	-	-	-	-	-	-	-	-	-	
13	1916	102	-	-	-	-	-	-	-	-	-	
14	1917	101	30,164	-	-	-	-	30,164	-	-	30,164	
15	1918	100	35,143	-	-	3,711	-	35,143	-	-	65,307	
16	1919	99	622	-	-	-	-	622	-	-	65,929	
17	1920	98	4,519	-	-	-	-	4,519	-	-	70,448	
18	1921	97	-	-	-	-	-	-	-	-	70,448	
19	1922	96	-	-	-	-	-	-	-	-	70,448	
20	1923	95	-	-	-	-	-	-	-	-	70,448	
21	1924	94	878	-	-	-	-	878	-	-	71,326	
22	1925	93	10	-	-	-	-	10	-	-	71,336	
23	1926	92	2,809	-	-	-	-	2,809	-	-	74,145	
24	1927	91	-	-	-	-	-	-	-	-	74,145	
25	1928	90	285	-	-	-	-	285	-	-	74,430	
26	1929	89	1,239	-	-	-	-	1,239	-	-	75,669	
27	1930	88	-	-	-	-	-	-	-	-	75,669	
28	1931	87	163	-	-	-	-	163	-	-	75,832	
29	1932	86	-	-	-	-	-	-	-	-	75,832	
30	1933	85	175	-	-	-	-	175	-	-	76,007	
31	1934	84	625	-	-	-	-	625	-	-	76,632	
32	1935	83	-	-	-	-	-	-	-	-	76,632	
33	1936	82	-	-	-	-	-	-	-	-	76,632	
34	1937	81	60,415	-	-	-	-	60,415	-	-	137,047	
35	1938	80	1,875	-	-	-	-	1,875	-	-	138,922	
36	1939	79	563	-	-	-	-	563	-	-	139,485	
37	1940	78	491	-	-	-	-	491	-	-	139,976	
38	1941	77	2,596	-	-	-	-	2,596	-	-	142,572	
39	1942	76	591	-	-	-	-	591	-	-	143,163	
40	1943	75	-	-	-	-	-	-	-	-	143,163	
41	1944	74	317	-	-	-	-	317	-	-	143,480	
42	1945	73	3,258	-	-	-	-	3,258	-	-	146,738	
43	1946	72	1,510	-	-	-	-	1,510	-	-	148,248	
44	1947	71	759	-	-	-	-	759	-	-	149,007	
45	1948	70	680	-	-	-	-	680	-	-	149,687	
46	1949	69	9,956	-	-	-	-	9,956	-	-	159,643	
47	1950	68	1,906,106	-	-	75,377	-	1,906,106	-	-	2,065,749	
48	1951	67	1,962	-	-	-	-	1,962	-	-	2,067,711	
49	1952	66	33,642	-	-	-	-	33,642	-	-	2,101,353	
50	1953	65	-	-	-	-	-	-	-	-	2,101,353	
51	1954	64	2,810,573	-	-	117,957	-	2,810,573	-	-	4,911,926	
52	1955	63	902	-	-	-	-	902	-	-	4,912,828	
53	1956	62	64,370	-	-	-	-	64,370	-	-	4,977,198	
54	1957	61	938	-	-	-	-	938	-	-	4,978,136	
55	1958	60	3,978	-	-	-	-	3,978	-	-	4,982,114	
56	1959	59	-	-	-	-	-	-	-	-	4,982,114	
57	1960	58	3,368	-	-	-	-	3,368	-	-	4,985,482	
58	1961	57	-	-	-	-	-	-	-	-	4,985,482	
59	1962	56	-	-	-	-	-	-	-	-	4,985,482	
60	1963	55	4,188	-	-	-	-	4,188	-	-	4,989,670	
61	1964	54	18,211	-	-	-	-	18,211	-	-	5,007,881	
62	1965	53	-	-	-	-	-	-	-	-	5,007,881	
63	1966	52	104,666	-	-	828	-	104,666	-	-	5,112,547	
64	1967	51	2,764	-	-	-	-	2,764	-	-	5,115,311	
65	1968	50	69	-	-	-	-	69	-	-	5,115,380	
66	1969	49	-	-	-	-	-	-	-	-	5,115,380	
67	1970	48	-	-	-	-	-	-	-	-	5,115,380	
68	1971	47	6,448	-	-	-	-	6,448	-	-	5,121,828	
69	1972	46	1,435	-	-	-	-	1,435	-	-	5,123,263	
70	1973	45	18,909	-	-	-	-	18,909	-	-	5,142,172	
71	1974	44	13,649	-	-	-	-	13,649	-	-	5,155,821	
72	1975	43	15,105	-	-	-	-	15,105	-	-	5,170,926	
73	1976	42	1,557,467	-	-	41,196	-	1,557,467	-	-	6,728,393	
74	1977	41	5,598,642	-	-	173,632	-	5,598,642	-	-	12,327,035	
75	1978	40	104,650	-	-	-	-	104,650	-	-	12,431,685	
76	1979	39	103,884	-	-	-	-	103,884	-	-	12,535,569	

The Empire District Electric Company

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1950  
 Retirement Date 2015  
 Service Life, Yrs 65

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Riverton Plant

Historical and Forecast Plant Additions & Balances  
 Accou 312 Boiler Plant Equipment

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year		Vintage Year	Advance	Advance	Additions	Retirements			
			Beg Balance	Additions	Retirements	Retirements	Additions					Retirements
77	1980	38	184,232	-	32,348	-	-	184,232	-	12,719,801		
78	1981	37	62,966	-	6,841	-	-	62,966	-	12,782,767		
79	1982	36	45,232	-	-	-	-	45,232	-	12,827,999		
80	1983	35	15,129	-	-	-	-	15,129	-	12,843,128		
81	1984	34	64,368	-	-	-	-	64,368	-	12,907,496		
82	1985	33	202,313	-	54,055	-	-	202,313	-	13,109,809		
83	1986	32	193,980	-	23,463	-	-	193,980	-	13,303,789		
84	1987	31	186,363	-	15,783	-	-	186,363	-	13,490,152		
85	1988	30	59,406	-	-	-	-	59,406	-	13,549,558		
86	1989	29	674,786	-	6,597	-	-	674,786	-	14,224,344		
87	1990	28	3,068,616	-	14,137	-	-	3,068,616	-	17,292,960		
88	1991	27	85,692	-	-	-	-	85,692	-	17,378,652		
89	1992	26	347,743	-	-	-	-	347,743	-	17,726,395		
90	1993	25	86,320	-	-	-	-	86,320	-	17,812,715		
91	1994	24	631,694	-	593,716	-	-	631,694	-	18,444,409		
92	1995	23	377,924	-	-	-	-	377,924	-	18,822,333		
93	1996	22	198,256	-	-	-	-	198,256	-	19,020,589		
94	1997	21	248,912	-	-	-	-	248,912	-	19,269,501		
95	1998	20	212,008	-	-	-	-	212,008	-	19,481,509		
96	1999	19	-	570,328	145,899	9,052	-	570,328	145,899	19,905,938		
97	2000	18	-	757,724	41,724	-	-	757,724	41,724	20,621,938		
98	2001	17	-	149,931	-	-	-	149,931	-	20,771,869		
99	2002	16	-	133,323	-	-	-	133,323	-	20,905,192		
100	2003	15	-	447,227	128,257	-	-	447,227	128,257	21,224,162		
101	2004	14	-	422,067	-	-	-	422,067	-	21,646,229		
102	2005	13	-	544,536	-	-	-	544,536	-	22,190,765		
103	2006	12	-	1,406,514	177,855	-	(147)	1,406,367	177,855	23,419,277		
104	2007	11	-	700,053	639,459	-	63,207	763,260	639,459	23,543,078		
105	2008	10	-	22,576	35,499	-	36,070	58,646	35,499	23,566,225		
106	2009	9	-	-	-	-	300,080	300,080	-	23,866,305		
107	Total		\$ 19,481,509	\$ 5,154,279	\$ 1,168,693	\$ 1,168,693	\$ 399,210	\$ -	\$ 25,034,998	\$ 1,168,693	\$ -	\$ 705,320,544

108 Major Additions/Retirements  
 109 2009 \$ 300,080  
 110 Routine Activity \$ 5,253,409 \$ 1,168,693  
 111 Historical Interim Activity 0.74% 0.17%  
 112 Forecast Interim Activity 0.74% 0.17%

Major Additions\*\*

113	2010	8	-	-	-	-	-	177,762	39,546	-	24,004,522
114	2011	7	-	-	-	-	-	178,792	39,775	-	24,143,539
115	2012	6	-	-	-	-	-	179,827	40,005	-	24,283,361
116	2013	5	-	-	-	-	-	180,869	40,237	-	24,423,993
117	2014	4	-	-	-	-	-	181,916	40,470	-	24,565,440
118	2015	3	-	-	-	-	-	182,970	40,704	-	24,707,705
119	2016	2	-	-	-	-	-	184,029	40,940	-	24,850,795
120	2017	1	-	-	-	-	-	185,095	41,177	-	24,994,713
121	2018	0	-	-	-	-	-	-	-	(24,994,713)	-
								\$ 26,486,259	\$ 1,491,546		\$ 901,294,611

\* Through vintage year 1999 the balances are 1999 remaining plant balances.  
 \*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	25,034,998
Forecast Additions	1,451,261
Total Additions	26,486,259
Gross Salvage Value	1,249,736
Less Cost of Removal	2,499,471
Net Salvage Value	(1,249,736)
Total to be Recovered	27,735,994

Forecast Plant Balances 901,294,611

Whole Life Accrual Rate 3.08%  
 Cost of Removal Accrual Rate 0.28%  
 Whole Life Accrual Rate (Excluding Cost of Removal) 2.80%

Depreciable Service Life, years 32.5

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/09	23,866,305
Forecast Additions	1,451,261
Gross Salvage Value	1,249,736
Less Cost of Removal	2,499,471
Net Salvage Value	(1,249,736)

Forecast Plant Balances 195,974,067



# APPENDIX

The Empire District Electric Company

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1950  
 Retirement Date 2015  
 Service Life, Yrs 65

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Riverton Plant

Historical and Forecast Plant Additions & Balances  
 Accou 314 Turbogenerator Equipment

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E]			[F] Vintage Year Retirements	[G] [H]		[I] [J]		[K] Transfers and Adjustments	[L] End of Year Plant Balance*
			Reported Per Books				Adjustments		Adjusted Transaction Year			
			Beg Balance	Additions	Retirements		Advance Additions	Advance Retirements	Additions	Retirements		
1	1904	114	-	-	-	-	-	-	-	-	-	
2	1905	113	-	-	-	-	-	-	-	-	-	
3	1906	112	-	-	-	-	-	-	-	-	-	
4	1907	111	-	-	-	-	-	-	-	-	-	
5	1908	110	-	-	-	-	-	-	-	-	-	
6	1909	109	-	-	-	-	-	-	-	-	-	
7	1910	108	-	-	-	-	-	-	-	-	-	
8	1911	107	-	-	-	-	-	-	-	-	-	
9	1912	106	-	-	-	-	-	-	-	-	-	
10	1913	105	-	-	-	-	-	-	-	-	-	
11	1914	104	-	-	-	-	-	-	-	-	-	
12	1915	103	-	-	-	-	-	-	-	-	-	
13	1916	102	-	-	-	-	-	-	-	-	-	
14	1917	101	29,383	-	-	-	-	29,383	-	-	29,383	
15	1918	100	-	-	-	-	-	-	-	-	29,383	
16	1919	99	-	-	-	-	-	-	-	-	29,383	
17	1920	98	-	-	-	-	-	-	-	-	29,383	
18	1921	97	-	-	-	-	-	-	-	-	29,383	
19	1922	96	-	-	-	-	-	-	-	-	29,383	
20	1923	95	-	-	-	-	-	-	-	-	29,383	
21	1924	94	1,935	-	-	-	-	1,935	-	-	31,318	
22	1925	93	4,590	-	-	-	-	4,590	-	-	35,908	
23	1926	92	-	-	-	-	-	-	-	-	35,908	
24	1927	91	-	-	-	-	-	-	-	-	35,908	
25	1928	90	-	-	-	-	-	-	-	-	35,908	
26	1929	89	-	-	-	-	-	-	-	-	35,908	
27	1930	88	-	-	-	-	-	-	-	-	35,908	
28	1931	87	-	-	-	-	-	-	-	-	35,908	
29	1932	86	-	-	-	-	-	-	-	-	35,908	
30	1933	85	-	-	-	-	-	-	-	-	35,908	
31	1934	84	-	-	-	-	-	-	-	-	35,908	
32	1935	83	-	-	-	-	-	-	-	-	35,908	
33	1936	82	-	-	-	-	-	-	-	-	35,908	
34	1937	81	-	-	-	-	-	-	-	-	35,908	
35	1938	80	98	-	-	-	-	98	-	-	36,006	
36	1939	79	-	-	-	-	-	-	-	-	36,006	
37	1940	78	-	-	-	-	-	-	-	-	36,006	
38	1941	77	-	-	-	-	-	-	-	-	36,006	
39	1942	76	-	-	-	-	-	-	-	-	36,006	
40	1943	75	-	-	-	-	-	-	-	-	36,006	
41	1944	74	-	-	-	-	-	-	-	-	36,006	
42	1945	73	3,775	-	-	-	-	3,775	-	-	39,781	
43	1946	72	-	-	-	-	-	-	-	-	39,781	
44	1947	71	292	-	-	-	-	292	-	-	40,073	
45	1948	70	11,779	-	-	-	-	11,779	-	-	51,852	
46	1949	69	-	-	-	-	-	-	-	-	51,852	
47	1950	68	1,349,679	-	-	24,993	-	1,349,679	-	-	1,401,531	
48	1951	67	694	-	-	-	-	694	-	-	1,402,225	
49	1952	66	-	-	-	-	-	-	-	-	1,402,225	
50	1953	65	-	-	-	-	-	-	-	-	1,402,225	
51	1954	64	1,826,349	-	-	103,960	-	1,826,349	-	-	3,228,574	
52	1955	63	10,815	-	-	-	-	10,815	-	-	3,239,389	
53	1956	62	-	-	-	-	-	-	-	-	3,239,389	
54	1957	61	-	-	-	-	-	-	-	-	3,239,389	
55	1958	60	1,574	-	-	-	-	1,574	-	-	3,240,963	
56	1959	59	3,364	-	-	2,173	-	3,364	-	-	3,244,327	
57	1960	58	-	-	-	-	-	-	-	-	3,244,327	
58	1961	57	10,472	-	-	-	-	10,472	-	-	3,254,799	
59	1962	56	14,132	-	-	-	-	14,132	-	-	3,268,931	
60	1963	55	12,125	-	-	-	-	12,125	-	-	3,281,056	
61	1964	54	52,617	-	-	-	-	52,617	-	-	3,333,673	
62	1965	53	23,989	-	-	-	-	23,989	-	-	3,357,662	
63	1966	52	1,575	-	-	-	-	1,575	-	-	3,359,237	
64	1967	51	3,920	-	-	-	-	3,920	-	-	3,363,157	
65	1968	50	3,074	-	-	-	-	3,074	-	-	3,366,231	
66	1969	49	839	-	-	-	-	839	-	-	3,367,070	
67	1970	48	-	-	-	-	-	-	-	-	3,367,070	
68	1971	47	-	-	-	-	-	-	-	-	3,367,070	
69	1972	46	9,414	-	-	-	-	9,414	-	-	3,376,484	
70	1973	45	1,878	-	-	-	-	1,878	-	-	3,378,362	
71	1974	44	1,241	-	-	-	-	1,241	-	-	3,379,603	
72	1975	43	6,631	-	-	-	-	6,631	-	-	3,386,234	
73	1976	42	743	-	-	-	-	743	-	-	3,386,977	
74	1977	41	-	-	-	-	-	-	-	-	3,386,977	
75	1978	40	-	-	-	-	-	-	-	-	3,386,977	
76	1979	39	-	-	-	-	-	-	-	-	3,386,977	

# APPENDIX

Schedule TJS-2

The Empire District Electric Company

Gross Salvage	5%
Cost of Removal	10%
Net Salvage	-5%
Install Date	1950
Retirement Date	2015
Service Life, Yrs	65

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Riverton Plant

Historical and Forecast Plant Additions & Balances  
Accou 314 Turbogenerator Equipment

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	
77	1980	38	122,826	-	-	-	-	122,826	-	3,509,803			
78	1981	37	-	-	-	-	-	-	-	3,509,803			
79	1982	36	-	-	-	-	-	-	-	3,509,803			
80	1983	35	19,432	-	-	-	-	19,432	-	3,529,235			
81	1984	34	-	-	-	-	-	-	-	3,529,235			
82	1985	33	21,143	-	-	-	-	21,143	-	3,550,378			
83	1986	32	-	-	-	-	-	-	-	3,550,378			
84	1987	31	867,609	-	-	-	-	867,609	-	4,417,987			
85	1988	30	1,427,939	-	-	-	-	1,427,939	-	5,845,926			
86	1989	29	-	-	-	-	-	-	-	5,845,926			
87	1990	28	242,432	-	-	-	-	242,432	-	6,088,358			
88	1991	27	15,255	-	15,255	-	-	15,255	-	6,103,613			
89	1992	26	-	-	-	-	-	-	-	6,103,613			
90	1993	25	21,095	-	-	-	-	21,095	-	6,124,708			
91	1994	24	39,119	-	-	-	-	39,119	-	6,163,827			
92	1995	23	176,085	-	-	-	-	176,085	-	6,339,912			
93	1996	22	21,299	-	-	-	-	21,299	-	6,361,211			
94	1997	21	-	-	-	-	-	-	-	6,361,211			
95	1998	20	97,565	-	-	-	-	97,565	-	6,458,776			
96	1999	19	-	6,188	15,280	-	-	6,188	15,280	6,449,684			
97	2000	18	-	106,786	25,295	-	-	106,786	25,295	6,531,175			
98	2001	17	-	-	15,255	-	-	-	15,255	6,515,920			
99	2002	16	-	-	-	-	-	-	-	6,515,920			
100	2003	15	-	30,765	1,871	-	-	30,765	1,871	6,544,814			
101	2004	14	-	-	-	-	-	-	-	6,544,814			
102	2005	13	-	-	-	-	-	-	-	6,544,814			
103	2006	12	-	11,837	16,020	-	-	11,837	16,020	6,540,631			
104	2007	11	-	-	-	-	-	-	-	6,540,631			
105	2008	10	-	-	-	654,710	-	654,710	-	7,195,341			
106	2009	9	-	-	72,660	8,277	-	8,277	72,660	7,130,958			
107	Total		\$ 6,458,776	\$ 155,576	\$ 146,381	\$ 146,381	\$ 662,987	\$ -	\$ 7,277,339	\$ 146,381	\$ -	\$ 263,176,700	
108	Major Additions/Retirements												
109	2008			\$ 654,710									
110	Routine Activity			\$ 163,853	\$ 146,381								
111	Historical Interim Activity			0.06%	0.06%								
112	Forecast Interim Activity			0.06%	0.06%								
<b>Major Additions**</b>													
113	2010	8						4,440	3,966			7,131,431	
114	2011	7						4,440	3,967			7,131,905	
115	2012	6						4,440	3,967			7,132,378	
116	2013	5						4,441	3,967			7,132,852	
117	2014	4						4,441	3,967			7,133,325	
118	2015	3						4,441	3,968			7,133,799	
119	2016	2						4,441	3,968			7,134,273	
120	2017	1						4,441	3,968			7,134,746	
121	2018	0						4,442	3,968			7,135,219	
										(7,134,746)			
										\$ 7,312,865	\$ 178,119		\$ 320,241,410

\* Through vintage year 1999 the balances are 1999 remaining plant balances.  
\*\* From 2009 capital budget

**Whole Life Depreciation Rate Calculation**

Historical Additions	7,277,339
Forecast Additions	35,526
Total Additions	7,312,865
Gross Salvage Value	356,737
Less Cost of Removal	713,475
Net Salvage Value	(356,737)
Total to be Recovered	7,669,602

Forecast Plant Balances 320,241,410

Whole Life Accrual Rate	2.39%
Cost of Removal Accrual Rate	0.22%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.17%

Depreciable Service Life, years 41.8

**Remaining Life Depreciation Rate Calculation**

Account Balance 12/31/09	7,130,958
Forecast Additions	35,526
Gross Salvage Value	356,737
Less Cost of Removal	713,475
Net Salvage Value	(356,737)

Forecast Plant Balances 57,064,710

# APPENDIX

The Empire District Electric Company

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1950  
 Retirement Date 2015  
 Service Life, Yrs 65

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Riverton Plant

Historical and Forecast Plant Additions & Balances  
 Accou 315 Accessory Electric Equipment

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E]			[F] Vintage Year Retirements	[G] [H]		[I] [J]		[K] Transfers and Adjustments	[L] End of Year Plant Balance*
			Reported Per Books				Adjustments		Adjusted Transaction Year			
			Beg Balance	Additions	Retirements		Advance Additions	Advance Retirements	Additions	Retirements		
1	1904	114	-	-	-	-	-	-	-	-	-	
2	1905	113	-	-	-	-	-	-	-	-	-	
3	1906	112	-	-	-	-	-	-	-	-	-	
4	1907	111	-	-	-	-	-	-	-	-	-	
5	1908	110	-	-	-	-	-	-	-	-	-	
6	1909	109	-	-	-	-	-	-	-	-	-	
7	1910	108	-	-	-	-	-	-	-	-	-	
8	1911	107	-	-	-	-	-	-	-	-	-	
9	1912	106	-	-	-	-	-	-	-	-	-	
10	1913	105	-	-	-	-	-	-	-	-	-	
11	1914	104	-	-	-	-	-	-	-	-	-	
12	1915	103	-	-	-	-	-	-	-	-	-	
13	1916	102	-	-	-	-	-	-	-	-	-	
14	1917	101	-	-	-	-	-	-	-	-	-	
15	1918	100	-	-	-	-	-	-	-	-	-	
16	1919	99	-	-	-	-	-	-	-	-	-	
17	1920	98	-	-	-	-	-	-	-	-	-	
18	1921	97	-	-	-	-	-	-	-	-	-	
19	1922	96	-	-	-	-	-	-	-	-	-	
20	1923	95	-	-	-	-	-	-	-	-	-	
21	1924	94	-	-	-	-	-	-	-	-	-	
22	1925	93	-	-	-	-	-	-	-	-	-	
23	1926	92	-	-	-	-	-	-	-	-	-	
24	1927	91	-	-	-	-	-	-	-	-	-	
25	1928	90	-	-	-	-	-	-	-	-	-	
26	1929	89	-	-	-	-	-	-	-	-	-	
27	1930	88	-	-	-	-	-	-	-	-	-	
28	1931	87	-	-	-	-	-	-	-	-	-	
29	1932	86	-	-	-	-	-	-	-	-	-	
30	1933	85	-	-	-	-	-	-	-	-	-	
31	1934	84	-	-	-	-	-	-	-	-	-	
32	1935	83	-	-	-	-	-	-	-	-	-	
33	1936	82	-	-	-	-	-	-	-	-	-	
34	1937	81	-	-	-	-	-	-	-	-	-	
35	1938	80	-	-	-	-	-	-	-	-	-	
36	1939	79	-	-	-	-	-	-	-	-	-	
37	1940	78	-	-	-	-	-	-	-	-	-	
38	1941	77	-	-	-	-	-	-	-	-	-	
39	1942	76	-	-	-	-	-	-	-	-	-	
40	1943	75	-	-	-	-	-	-	-	-	-	
41	1944	74	-	-	-	-	-	-	-	-	-	
42	1945	73	-	-	-	-	-	-	-	-	-	
43	1946	72	-	-	-	-	-	-	-	-	-	
44	1947	71	-	-	-	-	-	-	-	-	-	
45	1948	70	3,430	-	-	-	-	3,430	-	-	3,430	
46	1949	69	-	-	-	-	-	-	-	-	3,430	
47	1950	68	398,415	-	-	1,064	-	398,415	-	-	401,845	
48	1951	67	-	-	-	-	-	-	-	-	401,845	
49	1952	66	4,503	-	-	-	-	4,503	-	-	406,348	
50	1953	65	-	-	-	-	-	-	-	-	406,348	
51	1954	64	459,042	-	-	-	-	459,042	-	-	865,390	
52	1955	63	-	-	-	-	-	-	-	-	865,390	
53	1956	62	103,869	-	-	99,991	-	103,869	-	-	969,259	
54	1957	61	-	-	-	-	-	-	-	-	969,259	
55	1958	60	2,127	-	-	-	-	2,127	-	-	971,386	
56	1959	59	-	-	-	-	-	-	-	-	971,386	
57	1960	58	127	-	-	-	-	127	-	-	971,513	
58	1961	57	-	-	-	-	-	-	-	-	971,513	
59	1962	56	-	-	-	-	-	-	-	-	971,513	
60	1963	55	14,243	-	-	-	-	14,243	-	-	985,756	
61	1964	54	18,942	-	-	-	-	18,942	-	-	1,004,698	
62	1965	53	-	-	-	-	-	-	-	-	1,004,698	
63	1966	52	2,238	-	-	2,238	-	2,238	-	-	1,006,936	
64	1967	51	7,484	-	-	-	-	7,484	-	-	1,014,420	
65	1968	50	14,939	-	-	-	-	14,939	-	-	1,029,359	
66	1969	49	-	-	-	-	-	-	-	-	1,029,359	
67	1970	48	37,364	-	-	-	-	37,364	-	-	1,066,723	
68	1971	47	4,478	-	-	-	-	4,478	-	-	1,071,201	
69	1972	46	260	-	-	-	-	260	-	-	1,071,461	
70	1973	45	-	-	-	-	-	-	-	-	1,071,461	
71	1974	44	-	-	-	-	-	-	-	-	1,071,461	
72	1975	43	-	-	-	-	-	-	-	-	1,071,461	
73	1976	42	8,522	-	-	8,522	-	8,522	-	-	1,079,983	
74	1977	41	-	-	-	-	-	-	-	-	1,079,983	
75	1978	40	7,545	-	-	-	-	7,545	-	-	1,087,528	
76	1979	39	-	-	-	-	-	-	-	-	1,087,528	

# APPENDIX

Schedule TJS-2

The Empire District Electric Company

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1950  
 Retirement Date 2015  
 Service Life, Yrs 65

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Riverton Plant

Historical and Forecast Plant Additions & Balances  
 Accou 315 Accessory Electric Equipment

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
77	1980	38	-	-	-	-	-	-	-	1,087,528		
78	1981	37	-	-	-	-	-	-	-	1,087,528		
79	1982	36	-	-	-	-	-	-	-	1,087,528		
80	1983	35	-	-	-	-	-	-	-	1,087,528		
81	1984	34	-	-	-	-	-	-	-	1,087,528		
82	1985	33	99,278	-	-	-	-	99,278	-	1,186,806		
83	1986	32	3,013	-	-	-	-	3,013	-	1,189,819		
84	1987	31	-	-	-	-	-	-	-	1,189,819		
85	1988	30	-	-	-	-	-	-	-	1,189,819		
86	1989	29	-	-	-	-	-	-	-	1,189,819		
87	1990	28	-	-	-	-	-	-	-	1,189,819		
88	1991	27	76,269	-	76,269	-	-	76,269	-	1,266,088		
89	1992	26	990	-	-	-	-	990	-	1,267,078		
90	1993	25	-	-	-	-	-	-	-	1,267,078		
91	1994	24	-	-	-	-	-	-	-	1,267,078		
92	1995	23	14,112	-	-	-	-	14,112	-	1,281,190		
93	1996	22	-	-	-	-	-	-	-	1,281,190		
94	1997	21	-	-	-	-	-	-	-	1,281,190		
95	1998	20	-	-	-	-	-	-	-	1,281,190		
96	1999	19	-	27,808	8,522	-	-	27,808	8,522	1,300,476		
97	2000	18	-	-	-	-	-	-	-	1,300,476		
98	2001	17	12,106	25,423	-	-	-	12,106	25,423	1,287,159		
99	2002	16	13,787	-	-	-	-	13,787	-	1,300,946		
100	2003	15	-	1,064	-	-	-	-	1,064	1,299,882		
101	2004	14	-	-	-	-	-	-	-	1,299,882		
102	2005	13	14,368	-	-	-	-	14,368	-	1,314,250		
103	2006	12	-	50,846	-	-	-	-	50,846	1,263,404		
104	2007	11	-	102,229	-	-	-	-	102,229	1,161,175		
105	2008	10	-	-	-	-	-	-	-	1,570,339		
106	2009	9	-	-	-	-	-	-	409,164	1,570,339		
107	Total		\$ 1,281,190	\$ 68,069	\$ 188,084	\$ 188,084	\$ -	\$ -	\$ 1,349,259	\$ 188,084	\$ 409,164	\$ 65,417,822
108	Major Additions/Retirements											
109	2009		\$ -									
110	Routine Activity		\$ 68,069	\$ 188,084								
111	Historical Interim Activity		0.10%	0.29%								
112	Forecast Interim Activity		0.10%	0.29%								
<b>Major Additions**</b>												
113	2010	8						1,634	4,515			1,567,458
114	2011	7						1,631	4,507			1,564,582
115	2012	6						1,628	4,498			1,561,712
116	2013	5						1,625	4,490			1,558,847
117	2014	4						1,622	4,482			1,555,987
118	2015	3						1,619	4,474			1,553,132
119	2016	2						1,616	4,465			1,550,283
120	2017	1						1,613	4,457			1,547,439
121	2018	0									(1,547,439)	-
<hr/>												
\$ 1,362,247 \$ 223,972 \$ 77,877,263												

\* Through vintage year 1999 the balances are 1999 remaining plant balances.  
 \*\* From 2009 capital budget

**Whole Life Depreciation Rate Calculation**

Historical Additions	1,349,259
Forecast Additions	12,988
Total Additions	1,362,247
Gross Salvage Value	77,372
Less Cost of Removal	154,744
Net Salvage Value	(77,372)
Total to be Recovered	1,439,619
Forecast Plant Balances	77,877,263

Whole Life Accrual Rate	1.85%
Cost of Removal Accrual Rate	0.20%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.65%

Depreciable Service Life, years 54.1

**Remaining Life Depreciation Rate Calculation**

Account Balance 12/31/09	1,570,339
Forecast Additions	12,988
Gross Salvage Value	77,372
Less Cost of Removal	154,744
Net Salvage Value	(77,372)
Forecast Plant Balances	12,459,441

# APPENDIX

The Empire District Electric Company

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1950  
 Retirement Date 2015  
 Service Life, Yrs 65

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Riverton Plant

Historical and Forecast Plant Additions & Balances  
 Accou 316 Miscellaneous Plant Equipment

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E]			[F] Vintage Year Retirements	[G] [H]		[I] [J]		[K] Transfers and Adjustments	[L] End of Year Plant Balance*
			Reported Per Books				Adjustments		Adjusted Transaction Year			
			Beg Balance	Additions	Retirements		Advance Additions	Advance Retirements	Additions	Retirements		
1	1904	114	-	-	-	-	-	-	-	-	-	
2	1905	113	-	-	-	-	-	-	-	-	-	
3	1906	112	-	-	-	-	-	-	-	-	-	
4	1907	111	-	-	-	-	-	-	-	-	-	
5	1908	110	-	-	-	-	-	-	-	-	-	
6	1909	109	-	-	-	-	-	-	-	-	-	
7	1910	108	-	-	-	-	-	-	-	-	-	
8	1911	107	-	-	-	-	-	-	-	-	-	
9	1912	106	-	-	-	-	-	-	-	-	-	
10	1913	105	1,097	-	-	-	-	1,097	-	-	1,097	
11	1914	104	-	-	-	-	-	-	-	-	1,097	
12	1915	103	-	-	-	-	-	-	-	-	1,097	
13	1916	102	818	-	-	-	-	818	-	-	1,915	
14	1917	101	500	-	-	-	-	500	-	-	2,415	
15	1918	100	2,324	-	-	-	-	2,324	-	-	4,739	
16	1919	99	209	-	-	-	-	209	-	-	4,948	
17	1920	98	-	-	-	-	-	-	-	-	4,948	
18	1921	97	2,783	-	-	-	-	2,783	-	-	7,731	
19	1922	96	-	-	-	-	-	-	-	-	7,731	
20	1923	95	347	-	-	-	-	347	-	-	8,078	
21	1924	94	321	-	-	-	-	321	-	-	8,399	
22	1925	93	-	-	-	-	-	-	-	-	8,399	
23	1926	92	1,726	-	-	-	-	1,726	-	-	10,125	
24	1927	91	308	-	-	-	-	308	-	-	10,433	
25	1928	90	3,044	-	-	-	-	3,044	-	-	13,477	
26	1929	89	1,049	-	-	-	-	1,049	-	-	14,526	
27	1930	88	515	-	-	-	-	515	-	-	15,041	
28	1931	87	-	-	-	-	-	-	-	-	15,041	
29	1932	86	-	-	-	-	-	-	-	-	15,041	
30	1933	85	186	-	-	-	-	186	-	-	15,227	
31	1934	84	666	-	-	-	-	666	-	-	15,893	
32	1935	83	-	-	-	-	-	-	-	-	15,893	
33	1936	82	253	-	-	-	-	253	-	-	16,146	
34	1937	81	500	-	-	-	-	500	-	-	16,646	
35	1938	80	99	-	-	-	-	99	-	-	16,745	
36	1939	79	76	-	-	-	-	76	-	-	16,821	
37	1940	78	309	-	-	-	-	309	-	-	17,130	
38	1941	77	468	-	-	-	-	468	-	-	17,598	
39	1942	76	252	-	-	-	-	252	-	-	17,850	
40	1943	75	1,483	-	-	-	-	1,483	-	-	19,333	
41	1944	74	1,015	-	-	-	-	1,015	-	-	20,348	
42	1945	73	399	-	-	-	-	399	-	-	20,747	
43	1946	72	211	-	-	-	-	211	-	-	20,958	
44	1947	71	5,486	-	-	-	-	5,486	-	-	26,444	
45	1948	70	1,587	-	-	-	-	1,587	-	-	28,031	
46	1949	69	12,224	-	-	-	-	12,224	-	-	40,255	
47	1950	68	29,246	-	-	-	-	29,246	-	-	69,501	
48	1951	67	2,325	-	-	-	-	2,325	-	-	71,826	
49	1952	66	2,884	-	-	-	-	2,884	-	-	74,710	
50	1953	65	2,866	-	-	-	-	2,866	-	-	77,576	
51	1954	64	27,479	-	-	-	-	27,479	-	-	105,055	
52	1955	63	4,077	-	-	-	-	4,077	-	-	109,132	
53	1956	62	1,279	-	-	-	-	1,279	-	-	110,411	
54	1957	61	19,305	-	-	-	-	19,305	-	-	129,716	
55	1958	60	653	-	-	-	-	653	-	-	130,369	
56	1959	59	4,094	-	-	-	-	4,094	-	-	134,463	
57	1960	58	1,751	-	-	-	-	1,751	-	-	136,214	
58	1961	57	2,001	-	-	-	-	2,001	-	-	138,215	
59	1962	56	3,353	-	-	-	-	3,353	-	-	141,568	
60	1963	55	25,617	-	-	-	-	25,617	-	-	167,185	
61	1964	54	2,013	-	-	-	-	2,013	-	-	169,198	
62	1965	53	4,117	-	-	-	-	4,117	-	-	173,315	
63	1966	52	829	-	-	-	-	829	-	-	174,144	
64	1967	51	800	-	-	-	-	800	-	-	174,944	
65	1968	50	997	-	-	-	-	997	-	-	175,941	
66	1969	49	6,491	-	-	-	-	6,491	-	-	182,432	
67	1970	48	7,547	-	-	-	-	7,547	-	-	189,979	
68	1971	47	2,753	-	-	-	-	2,753	-	-	192,732	
69	1972	46	9,240	-	-	-	-	9,240	-	-	201,972	
70	1973	45	14,110	-	-	-	-	14,110	-	-	216,082	
71	1974	44	5,044	-	-	-	-	5,044	-	-	221,126	
72	1975	43	6,847	-	-	-	-	6,847	-	-	227,973	
73	1976	42	4,893	-	-	-	-	4,893	-	-	232,866	
74	1977	41	1,968	-	-	-	-	1,968	-	-	234,834	
75	1978	40	340	-	-	-	-	340	-	-	235,174	
76	1979	39	-	-	-	-	-	-	-	-	235,174	

# APPENDIX

Schedule TJS-2

The Empire District Electric Company

Gross Salvage 5%  
 Cost of Removal 10%  
 Net Salvage -5%  
 Install Date 1950  
 Retirement Date 2015  
 Service Life, Yrs 65

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Riverton Plant

Historical and Forecast Plant Additions & Balances

Accou 316 Miscellaneous Plant Equipment

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*			
			Transaction Year		Vintage Year	Advance	Advance	Adjusted Transaction Year						
			Beg Balance	Additions	Retirements	Retirements	Additions	Retirements	Additions			Retirements		
77	1980	38	7,013	-	-	-	-	7,013	-	-	242,187			
78	1981	37	1,375	-	-	-	-	1,375	-	-	243,562			
79	1982	36	11,252	-	-	-	-	11,252	-	-	254,814			
80	1983	35	5,053	-	-	-	-	5,053	-	-	259,867			
81	1984	34	28,015	-	-	-	-	28,015	-	-	287,882			
82	1985	33	1,268	-	-	-	-	1,268	-	-	289,150			
83	1986	32	40,307	-	-	-	-	40,307	-	-	329,457			
84	1987	31	293,366	-	-	-	-	293,366	-	-	622,823			
85	1988	30	3,965	-	-	-	-	3,965	-	-	626,788			
86	1989	29	20,978	-	15,210	-	-	20,978	-	-	647,766			
87	1990	28	48,456	-	-	-	-	48,456	-	-	696,222			
88	1991	27	13,773	-	-	-	-	13,773	-	-	709,995			
89	1992	26	39,650	-	-	-	-	39,650	-	-	749,645			
90	1993	25	13,348	-	-	-	-	13,348	-	-	762,993			
91	1994	24	13,033	-	-	-	-	13,033	-	-	776,026			
92	1995	23	41,865	-	-	-	-	41,865	-	-	817,891			
93	1996	22	33,991	-	-	-	-	33,991	-	-	851,882			
94	1997	21	12,254	-	-	-	-	12,254	-	-	864,136			
95	1998	20	10,171	-	-	-	-	10,171	-	-	874,307			
96	1999	19	-	30,720	-	-	-	30,720	-	-	905,027			
97	2000	18	-	9,938	-	-	-	9,938	-	-	914,965			
98	2001	17	-	38,880	-	-	-	38,880	-	-	953,845			
99	2002	16	-	14,996	-	-	-	14,996	-	-	968,841			
100	2003	15	-	-	-	-	-	-	-	-	968,841			
101	2004	14	-	6,589	-	-	-	6,589	-	-	975,430			
102	2005	13	-	21,156	-	-	32,556	53,712	-	-	1,029,142			
103	2006	12	-	1,859	15,210	-	-	1,859	15,210	-	1,015,791			
104	2007	11	-	135,370	-	-	-	135,370	-	-	1,151,161			
105	2008	10	-	3,003	-	-	7,274	10,277	-	-	1,161,438			
106	2009	9	-	-	-	-	952,912	952,912	-	-	2,114,350			
107	Total		\$ 874,307	\$ 262,511	\$ 15,210	\$ 15,210	\$ 992,742	\$ -	\$ 2,129,560	\$ 15,210	\$ -	\$ 28,398,394		
108	Major Additions/Retirements													
109	2009		\$	952,912										
110	Routine Activity		\$	302,341	\$	15,210								
111	Historical Interim Activity			1.06%		0.05%								
112	Forecast Interim Activity			1.06%		0.05%								
											<b>Major Additions**</b>			
113	2010	8						22,510	1,132		2,135,728			
114	2011	7						22,738	1,144		2,157,322			
115	2012	6						22,968	1,155		2,179,134			
116	2013	5						23,200	1,167		2,201,167			
117	2014	4						23,435	1,179		2,223,422			
118	2015	3						23,671	1,191		2,245,903			
119	2016	2						23,911	1,203		2,268,611			
120	2017	1						24,153	1,215		2,291,549			
121	2018	0								(2,291,549)	-			
											\$ 2,316,145	\$ 24,597		\$ 46,101,230

\* Through vintage year 1999 the balances are 1999 remaining plant balances.  
 \*\* From 2009 capital budget

**Whole Life Depreciation Rate Calculation**

Historical Additions	2,129,560
Forecast Additions	186,585
Total Additions	2,316,145
Gross Salvage Value	114,577
Less Cost of Removal	229,155
Net Salvage Value	(114,577)
Total to be Recovered	2,430,723

Forecast Plant Balances 46,101,230

Whole Life Accrual Rate 5.27%  
 Cost of Removal Accrual Rate 0.50%  
 Whole Life Accrual Rate (Excluding Cost of Removal) 4.78%

Depreciable Service Life, years 19.0

**Remaining Life Depreciation Rate Calculation**

Account Balance 12/31/09	2,114,350
Forecast Additions	186,585
Gross Salvage Value	114,577
Less Cost of Removal	229,155
Net Salvage Value	(114,577)

Forecast Plant Balances 17,702,836

Summary by Plant  
The Empire District Electric Company  
**Iatan Plant**

Account	Description	Direct Investment 2009\$	Depreciation Rate
310	Land	0	0.00%
311	Structure & Improvements	4,192,135	2.08%
312	Boiler Plant Equipment	111,979,459	3.16%
314	Turbo Generator Equipment	9,352,355	2.42%
315	Accessory Electric Equipment	6,786,104	4.06%
316	Misc Power Equipment	975,096	3.25%
<b>Total</b>		133,285,149	<span style="border: 1px solid black; padding: 2px;">3.12%</span> whole life weighted average rate

**Remaining Life Depreciation Rate Calculation**

Per Books Balance 12/31/09	133,285,149
Forecast Interim Additions	41,726,870
Forecast Gross Salvage Value	8,206,942
Forecast Less Cost of Removal	16,413,883
Forecast Net Salvage Value	(8,206,942)
Forecast Total to be Recovered with COR	183,218,960
Forecast Total to be Recovered w/o COR	166,805,077
Accumulated Depreciation (2009 EOY)	(36,078,829)
Forecast Remaining Life Balance with COR	147,140,131
Forecast Remaining Life Balance w/o COR	130,726,248
Forecast Plant Balances	4,590,010,202
Remaining Life Rate with COR	3.21%
Remaining Life Rate w/o COR	2.85%
Reserve Variance with COR	(3,939,183)

# APPENDIX

Schedule TJS-2

The Empire District Electric Company

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

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Iatan Plant

Historical and Forecast Plant Additions & Balances

Accou 311 Structures & Improvements

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E]			[F] Vintage Year Retirements	[G] [H]		[I] [J]		[K] Transfers and Adjustments	[L] End of Year Plant Balance*
			Reported Per Books				Adjustments		Adjusted Transaction Year			
			Beg Balance	Additions	Retirements		Advance Additions	Advance Retirements	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	Total		\$ 3,851,977	\$ 91,198	\$ 68,236	\$ 68,236	\$ 317,196	\$ -	\$ 4,260,371	\$ 68,236	\$ -	\$ 107,469,635

32 Major Additions/Retirements

33	Routine Activity		\$ 408,394	\$ 68,236
34	Historical Interim Activity		0.38%	0.06%
35	Forecast Interim Activity		0.38%	0.06%

Major Additions\*\*

36	2010	30					15,930	2,662				4,205,404
37	2011	29					15,981	2,670				4,218,715
38	2012	28					16,031	2,679				4,232,067
39	2013	27					16,082	2,687				4,245,463
40	2014	26					16,133	2,696				4,258,900
41	2015	25					16,184	2,704				4,272,380
42	2016	24					16,235	2,713				4,285,903
43	2017	23					16,287	2,721				4,299,468
44	2018	22					16,338	2,730				4,313,077
45	2019	21					16,390	2,739				4,326,728
46	2020	20					16,442	2,747				4,340,423
47	2021	19					16,494	2,756				4,354,161
48	2022	18					16,546	2,765				4,367,943
49	2023	17					16,599	2,773				4,381,768
50	2024	16					16,651	2,782				4,395,637
51	2025	15					16,704	2,791				4,409,550
52	2026	14					16,757	2,800				4,423,507
53	2027	13					16,810	2,809				4,437,508
54	2028	12					16,863	2,818				4,451,553
55	2029	11					16,916	2,826				4,465,643
56	2030	10					16,970	2,835				4,479,778
57	2031	9					17,024	2,844				4,493,957
58	2032	8					17,077	2,853				4,508,181
59	2033	7					17,131	2,862				4,522,450
60	2034	6					17,186	2,871				4,536,764
61	2035	5					17,240	2,881				4,551,124
62	2036	4					17,295	2,890				4,565,529
63	2037	3					17,349	2,899				4,579,979
64	2038	2					17,404	2,908				4,594,476
65	2039	1					17,459	2,917				4,609,018
66	2040	0								(4,609,018)		-
			\$ -	\$ 4,760,881	\$ 151,863							\$ 239,596,691

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

\*\* From 2009 capital budget



# APPENDIX

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

**Historical and Forecast Plant Additions & Balances  
Accou 311 Structures & Improvements**

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

**Whole Life Depreciation Rate Calculation**

Historical Additions	4,260,371
Forecast Additions	500,510
Total Additions	4,760,881
Gross Salvage Value	230,451
Less Cost of Removal	460,902
Net Salvage Value	(230,451)
Total to be Recovered	4,991,332

Forecast Plant Balances 239,596,691

Whole Life Accrual Rate	2.08%
Cost of Removal Accrual Rate	0.19%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.89%

Depreciable Service Life, years 48.0

**Remaining Life Depreciation Rate Calculation**

Account Balance 12/31/09	4,192,135
Forecast Additions	500,510
Gross Salvage Value	230,451
Less Cost of Removal	460,902
Net Salvage Value	(230,451)

Forecast Plant Balances 132,127,056

# APPENDIX

Schedule TJS-2

The Empire District Electric Company

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

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Iatan Plant

Historical and Forecast Plant Additions & Balances

Account: 312 Boiler Plant Equipment

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E] [F]				[G] [H]		[I] [J]		[K] Transfers and Adjustments	[L] End of Year Plant Balance*
			Reported Per Books				Adjustments		Adjusted Transaction Year			
			Beg Balance	Transaction Year Additions	Retirements	Vintage Year Retirements	Advance Additions	Advance Retirements	Additions	Retirements		
1	1980	60	26,030,607	-	-	1,622,696	-	26,030,607	-	-	26,030,607	
2	1981	59	-	-	-	-	-	-	-	-	26,030,607	
3	1982	58	-	-	-	-	-	-	-	-	26,030,607	
4	1983	57	159,024	-	-	38,915	-	159,024	-	-	26,189,631	
5	1984	56	133,092	-	-	112,329	-	133,092	-	-	26,322,723	
6	1985	55	43,315	-	-	1,442	-	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	-	-	4,971	-	107,911	-	-	26,567,259	
11	1990	50	48,647	-	-	34,703	-	48,647	-	-	26,615,906	
12	1991	49	273,477	-	-	3,319	-	273,477	-	-	26,889,383	
13	1992	48	321,108	-	-	10,681	-	321,108	-	-	27,210,491	
14	1993	47	-	-	-	-	-	-	-	-	27,210,491	
15	1994	46	179,351	-	-	27,129	-	179,351	-	-	27,389,842	
16	1995	45	63,212	-	-	341	-	63,212	-	-	27,453,054	
17	1996	44	380,926	-	-	28,648	-	380,926	-	-	27,833,980	
18	1997	43	165,192	-	-	3,658	-	165,192	-	-	27,999,172	
19	1998	42	36,366	-	-	10,463	-	36,366	-	-	28,035,538	
20	1999	41	-	23,451	-	-	-	23,451	-	-	28,058,989	
21	2000	40	-	354,275	-	15,955	-	354,275	-	-	28,413,264	
22	2001	39	-	130,586	-	2,937	-	130,586	-	-	28,543,850	
23	2002	38	-	635,875	-	36,116	-	635,875	-	-	29,179,725	
24	2003	37	-	487,438	-	12,674	-	487,438	-	-	29,667,163	
25	2004	36	-	244,581	-	-	-	244,581	-	-	29,911,744	
26	2005	35	-	330,971	-	-	-	330,971	-	-	30,242,715	
27	2006	34	-	162,083	-	3,735	4,925	167,008	-	-	30,409,723	
28	2007	33	-	473,257	1,803,878	-	1,001,700	1,474,957	1,803,878	-	30,080,802	
29	2008	32	-	937	167,584	-	630,928	631,865	167,584	-	30,545,083	
30	2009	31	-	-	-	-	81,434,376	81,434,376	-	-	111,979,459	
31	Total		\$ 28,035,538	\$ 2,843,454	\$ 1,971,462	\$ 1,971,462	\$ 83,071,929	\$ -	#####	\$ 1,971,462	\$ -	\$ 916,508,559
32	Major Additions/Retirements 2009			\$ 81,434,376								
33	Routine Activity		\$ 4,481,007	\$ 1,971,462								
34	Historical Interim Activity			0.49%	0.22%							
35	Forecast Interim Activity			0.49%	0.22%							
36	2010	30					Major Additions**		240,874		114,425,085	
37	2011	29					2,686,500		246,135		119,417,223	
38	2012	28					5,238,273		256,873		120,624,213	
39	2013	27					1,463,864		259,470		122,516,698	
40	2014	26					2,151,955		263,540		123,614,749	
41	2015	25					1,361,591	604,379	265,902		123,953,225	
42	2016	24						606,034	266,630		124,292,629	
43	2017	23						607,693	267,361		124,632,962	
44	2018	22						609,357	268,093		124,974,226	
45	2019	21						611,026	268,827		125,316,426	
46	2020	20						612,699	269,563		125,659,562	
47	2021	19						614,377	270,301		126,003,637	
48	2022	18						616,059	271,041		126,348,655	
49	2023	17						617,746	271,783		126,694,618	
50	2024	16						619,437	272,527		127,041,528	
51	2025	15						621,133	273,274		127,389,387	
52	2026	14						622,834	274,022		127,738,200	
53	2027	13						624,539	274,772		128,087,967	
54	2028	12						626,250	275,524		128,438,692	
55	2029	11						627,964	276,279		128,790,377	
56	2030	10						629,684	277,035		129,143,026	
57	2031	9						631,408	277,794		129,496,640	
58	2032	8						633,137	278,555		129,851,222	
59	2033	7						634,870	279,317		130,206,775	
60	2034	6						636,609	280,082		130,563,302	
61	2035	5						638,352	280,849		130,920,805	
62	2036	4						640,100	281,618		131,279,286	
63	2037	3						641,853	282,389		131,638,750	
64	2038	2						643,610	283,162		131,999,198	
65	2039	1						645,372	283,938		132,360,632	
66	2040	0								#####	-	#####
								\$ 12,902,182	#####	\$ 10,108,993		#####

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

\*\* From 2009 capital budget

# APPENDIX

Schedule TJS-2

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 Plant	Install Date	1980
	Retirement Date	2040
	Service Life, Yrs	60

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

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

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

**Whole Life Depreciation Rate Calculation**

Historical Additions	113,950,921
Forecast Additions	28,518,704
Total Additions	142,469,625
Gross Salvage Value	6,618,032
Less Cost of Removal	13,236,063
Net Salvage Value	(6,618,032)
Total to be Recovered	149,087,657

Forecast Plant Balances 4,719,928,251

Whole Life Accrual Rate	3.16%
Cost of Removal Accrual Rate	0.28%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.88%

Depreciable Service Life, years 31.7

**Remaining Life Depreciation Rate Calculation**

Account Balance 12/31/09	111,979,459
Forecast Additions	28,518,704
Gross Salvage Value	6,618,032
Less Cost of Removal	13,236,063
Net Salvage Value	(6,618,032)

Forecast Plant Balances 3,803,419,692

# APPENDIX

Schedule TJS-2

The Empire District Electric Company

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

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Iatan Plant

Historical and Forecast Plant Additions & Balances

Account: 314 Turbogenerator Equipment

Line	Vintage Year	Vintage Age	Reported Per Books				Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Vintage Year		Advance	Advance	Additions	Retirements		
			Beg Balance	Additions	Retirements	Retirements	Additions	Retirements	Additions	Retirements		
1	1980	60	7,168,194	-	-	348211	-	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	-	-	25,016	-	118,246	-	-	7,811,703	
22	2001	39	4,616	-	-	-	-	4,616	-	-	7,816,319	
23	2002	38	26,194	-	-	1,462	-	26,194	-	-	7,842,513	
24	2003	37	34,241	-	-	468	-	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	-	-	-	-	56,127	-	-	8,097,616	
28	2007	33	208,839	336,830	-	-	9,615	218,454	336,830	-	7,979,240	
29	2008	32	-	68,715	-	-	16,026	16,026	68,715	-	7,926,551	
30	2009	31	-	-	-	-	1,425,804	1,425,804	-	-	9,352,355	
31	Total		\$ 7,693,457	\$ 612,998	\$ 405,545	\$ 405,545	\$ 1,451,445	\$ -	\$ 9,757,900	\$ 405,545	\$ -	\$ 228,603,975
32	Major Additions/Retirements											
33	Routine Activity		\$ 2,064,443	\$ 405,545								
34	Historical Interim Activity			0.90%	0.18%							
35	Forecast Interim Activity			0.90%	0.18%							
36	2010	30						84,458	16,591			9,420,222
37	2011	29						85,071	16,712			9,488,581
38	2012	28						85,688	16,833			9,557,436
39	2013	27						86,310	16,955			9,626,791
40	2014	26						86,936	17,078			9,696,649
41	2015	25						87,567	17,202			9,767,014
42	2016	24						88,203	17,327			9,837,890
43	2017	23						88,843	17,452			9,909,280
44	2018	22						89,487	17,579			9,981,188
45	2019	21						90,137	17,707			10,053,618
46	2020	20						90,791	17,835			10,126,574
47	2021	19						91,450	17,965			10,200,059
48	2022	18						92,113	18,095			10,274,077
49	2023	17						92,782	18,226			10,348,632
50	2024	16						93,455	18,359			10,423,729
51	2025	15						94,133	18,492			10,499,370
52	2026	14						94,816	18,626			10,575,560
53	2027	13						95,504	18,761			10,652,303
54	2028	12						96,197	18,897			10,729,603
55	2029	11						96,895	19,034			10,807,464
56	2030	10						97,598	19,173			10,885,890
57	2031	9						98,307	19,312			10,964,885
58	2032	8						99,020	19,452			11,044,454
59	2033	7						99,739	19,593			11,124,599
60	2034	6						100,462	19,735			11,205,327
61	2035	5						101,191	19,878			11,286,640
62	2036	4						101,926	20,023			11,368,543
63	2037	3						102,665	20,168			11,451,040
64	2038	2						103,410	20,314			11,534,136
65	2039	1						104,161	20,462			11,617,836
66	2040	0								(11,617,836)		-
								\$ -	\$ 12,577,215	\$ 959,379		\$ 543,063,369

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

\*\* From 2009 capital budget

# APPENDIX

Schedule TJS-2

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 Plant	Install Date	1980
	Retirement Date	2040
	Service Life, Yrs	60

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

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

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

### Whole Life Depreciation Rate Calculation

Historical Additions	9,757,900
Forecast Additions	2,819,315
Total Additions	12,577,215
Gross Salvage Value	580,892
Less Cost of Removal	1,161,784
Net Salvage Value	(580,892)
Total to be Recovered	13,158,106

Forecast Plant Balances 543,063,369

Whole Life Accrual Rate	2.42%
Cost of Removal Accrual Rate	0.21%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.21%

Depreciable Service Life, years 41.3

### Remaining Life Depreciation Rate Calculation

Account Balance 12/31/09	9,352,355
Forecast Additions	2,819,315
Gross Salvage Value	580,892
Less Cost of Removal	1,161,784
Net Salvage Value	(580,892)

Forecast Plant Balances 314,459,394

# APPENDIX

Schedule TJS-2

The Empire District Electric Company

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

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Iatan Plant

Historical and Forecast Plant Additions & Balances

Account: 315 Accessory Electric Equipment

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E] [F]				[G] [H]		[I] [J]		[K]	[L]	
			Reported Per Books				Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Beg Balance	Transaction Year Additions	Retirements	Vintage Year Retirements	Advance Additions	Advance Retirements	Additions	Retirements			
1	1980	60	3,184,218	-	-	712,849	-	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	-	2,943	802,344	-	22,579	25,522	802,344	-	4,932,391		
29	2008	32	-	1,086	-	-	265,334	266,420	-	338,149	5,536,960		
30	2009	31	-	-	-	-	1,249,144	1,249,144	-	-	6,786,104		
31	Total		\$ 3,534,567	\$ 2,178,675	\$ 802,344	\$ 802,344	\$ 1,537,057	\$ -	\$ 7,250,299	\$ 802,344	\$ 338,149	\$ 119,489,538	
32	Major Additions/Retirements												
33	Routine Activity		\$ 3,715,732	\$ 802,344									
34	Historical Interim Activity			3.11%	0.67%								
35	Forecast Interim Activity			3.11%	0.67%								
36	2010	30						211,026	45,567		6,951,562		
37	2011	29						216,171	46,678		7,121,055		
38	2012	28						221,441	47,816		7,294,680		
39	2013	27						226,841	48,982		7,472,539		
40	2014	26						232,371	50,176		7,654,734		
41	2015	25						238,037	51,400		7,841,371		
42	2016	24						243,841	52,653		8,032,559		
43	2017	23						249,786	53,937		8,228,409		
44	2018	22						255,876	55,252		8,429,033		
45	2019	21						262,115	56,599		8,634,550		
46	2020	20						268,506	57,979		8,845,077		
47	2021	19						275,053	59,393		9,060,737		
48	2022	18						281,759	60,841		9,281,655		
49	2023	17						288,629	62,324		9,507,960		
50	2024	16						295,666	63,844		9,739,783		
51	2025	15						302,875	65,400		9,977,258		
52	2026	14						310,260	66,995		10,220,523		
53	2027	13						317,825	68,628		10,469,719		
54	2028	12						325,574	70,302		10,724,991		
55	2029	11						333,512	72,016		10,986,487		
56	2030	10						341,644	73,772		11,254,359		
57	2031	9						349,974	75,570		11,528,763		
58	2032	8						358,507	77,413		11,809,856		
59	2033	7						367,248	79,300		12,097,804		
60	2034	6						376,202	81,234		12,392,772		
61	2035	5						385,374	83,215		12,694,932		
62	2036	4						394,771	85,243		13,004,459		
63	2037	3						404,396	87,322		13,321,533		
64	2038	2						414,256	89,451		13,646,338		
65	2039	1						424,356	91,632		13,979,062		
66	2040	0								(13,979,062)	-		
										\$ -	\$ 16,424,190	\$ 2,783,277	\$ 421,694,099

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

\*\* From 2009 capital budget

# APPENDIX

Schedule TJS-2

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 Plant	Install Date	1980
	Retirement Date	2040
	Service Life, Yrs	60

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

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

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

**Whole Life Depreciation Rate Calculation**

Historical Additions	7,250,299
Forecast Additions	9,173,891
Total Additions	16,424,190
Gross Salvage Value	698,953
Less Cost of Removal	1,397,906
Net Salvage Value	(698,953)
Total to be Recovered	17,123,144

Forecast Plant Balances 421,694,099

Whole Life Accrual Rate	4.06%
Cost of Removal Accrual Rate	0.33%
Whole Life Accrual Rate (Excluding Cost of Removal)	3.73%

Depreciable Service Life, years 24.6

**Remaining Life Depreciation Rate Calculation**

Account Balance 12/31/09	6,786,104
Forecast Additions	9,173,891
Gross Salvage Value	698,953
Less Cost of Removal	1,397,906
Net Salvage Value	(698,953)

Forecast Plant Balances 302,204,561

# APPENDIX

Schedule TJS-2

The Empire District Electric Company

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Steam Production, Iatan Plant

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]	[L]	
			Reported Per Books				Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Beg Balance	Transaction Year Additions	Retirements	Vintage Year Retirements	Advance Additions	Advance Retirements	Additions	Retirements			
1	1980	60	425,090	-	-	20,794	-	425,090	-	-	-	425,090	
2	1981	59	-	-	-	-	-	-	-	-	-	425,090	
3	1982	58	-	-	-	-	-	-	-	-	-	425,090	
4	1983	57	9,163	-	-	271	-	9,163	-	-	-	434,253	
5	1984	56	9,331	-	-	-	-	9,331	-	-	-	443,584	
6	1985	55	5,728	-	-	1,878	-	5,728	-	-	-	449,312	
7	1986	54	19,419	-	-	15,898	-	19,419	-	-	-	468,731	
8	1987	53	3,690	-	-	179	-	3,690	-	-	-	472,421	
9	1988	52	1,582	-	-	407	-	1,582	-	-	-	474,003	
10	1989	51	20,797	-	-	17,850	-	20,797	-	-	-	494,800	
11	1990	50	4,203	-	-	522	-	4,203	-	-	-	499,003	
12	1991	49	8,354	-	-	-	-	8,354	-	-	-	507,357	
13	1992	48	13,794	-	-	-	-	13,794	-	-	-	521,151	
14	1993	47	-	-	-	-	-	-	-	-	-	521,151	
15	1994	46	23,918	-	-	-	-	23,918	-	-	-	545,069	
16	1995	45	9,920	-	-	-	-	9,920	-	-	-	554,989	
17	1996	44	95,116	-	-	-	-	95,116	-	-	-	650,105	
18	1997	43	9,018	-	-	-	-	9,018	-	-	-	659,123	
19	1998	42	21,620	-	-	-	-	21,620	-	-	-	680,743	
20	1999	41	-	-	-	-	-	-	-	-	-	680,743	
21	2000	40	-	24,743	-	-	-	24,743	-	-	-	705,486	
22	2001	39	-	13,727	-	-	-	13,727	-	-	-	719,213	
23	2002	38	-	16,443	-	-	-	16,443	-	-	-	735,656	
24	2003	37	-	21,801	-	-	-	21,801	-	-	-	757,457	
25	2004	36	-	25,299	-	-	-	25,299	-	-	-	782,756	
26	2005	35	-	7,091	-	-	-	7,091	-	-	-	789,847	
27	2006	34	-	14,947	-	-	1,184	16,131	-	-	-	805,978	
28	2007	33	-	7,473	57,799	-	32,087	39,560	57,799	-	-	787,739	
29	2008	32	-	-	-	-	158,235	158,235	-	-	-	945,974	
30	2009	31	-	-	-	-	29,122	29,122	-	-	-	975,096	
31	Total		\$ 680,743	\$ 131,524	\$ 57,799	\$ 57,799	\$ 220,628	\$ -	\$ 1,032,895	\$ 57,799	\$ -	\$ 18,337,010	
32	Major Additions/Retirements												
33	Routine Activity		\$ 352,152	\$ 57,799									
34	Historical Interim Activity		1.92%	0.32%									
35	Forecast Interim Activity		1.92%	0.32%									
36	2010	30					Major Additions**		18,726	3,074			990,749
37	2011	29							19,027	3,123			1,006,653
38	2012	28							19,332	3,173			1,022,812
39	2013	27							19,643	3,224			1,039,230
40	2014	26							19,958	3,276			1,055,912
41	2015	25							20,278	3,328			1,072,862
42	2016	24							20,604	3,382			1,090,084
43	2017	23							20,934	3,436			1,107,583
44	2018	22							21,271	3,491			1,125,362
45	2019	21							21,612	3,547			1,143,427
46	2020	20							21,959	3,604			1,161,782
47	2021	19							22,311	3,662			1,180,431
48	2022	18							22,670	3,721			1,199,380
49	2023	17							23,033	3,780			1,218,633
50	2024	16							23,403	3,841			1,238,195
51	2025	15							23,779	3,903			1,258,071
52	2026	14							24,161	3,965			1,278,266
53	2027	13							24,548	4,029			1,298,785
54	2028	12							24,942	4,094			1,319,634
55	2029	11							25,343	4,160			1,340,817
56	2030	10							25,750	4,226			1,362,340
57	2031	9							26,163	4,294			1,384,209
58	2032	8							26,583	4,363			1,406,429
59	2033	7							27,010	4,433			1,429,006
60	2034	6							27,443	4,504			1,451,944
61	2035	5							27,884	4,577			1,475,252
62	2036	4							28,331	4,650			1,498,933
63	2037	3							28,786	4,725			1,522,994
64	2038	2							29,248	4,801			1,547,442
65	2039	1							29,718	4,878			1,572,282
66	2040	0									(1,572,282)	-	-
								\$ -	\$ 1,747,345	\$ 175,062			\$ 56,136,509

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

\*\* From 2009 capital budget



# APPENDIX

Schedule TJS-2

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 Plant	Install Date	1980
	Retirement Date	2040
	Service Life, Yrs	60

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

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

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]
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							

**Whole Life Depreciation Rate Calculation**

Historical Additions	1,032,895
Forecast Additions	714,450
Total Additions	1,747,345
Gross Salvage Value	78,614
Less Cost of Removal	157,228
Net Salvage Value	(78,614)
Total to be Recovered	1,825,959

Forecast Plant Balances 56,136,509

Whole Life Accrual Rate	3.25%
Cost of Removal Accrual Rate	0.28%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.97%

Depreciable Service Life, years 30.7

**Remaining Life Depreciation Rate Calculation**

Account Balance 12/31/09	975,096
Forecast Additions	714,450
Gross Salvage Value	78,614
Less Cost of Removal	157,228
Net Salvage Value	(78,614)

Forecast Plant Balances 37,799,499

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

Account	Description	Direct Investment 2009\$	Depreciation Rate
331	Structures & Improvements	677,755	2.00%
332	Reservoirs, Dams, and Waterways	1,518,255	0.98%
333	Water Wheels, Turbines and Generators	1,619,458	3.00%
334	Accessory Electric Equipment	1,237,587	1.97%
335	Miscellaneous Power Plant Equipment	456,215	3.52%
<b>Total</b>		5,509,271	2.13% whole life weighted average rate

**Remaining Life Depreciation Rate Calculation**

Per Books Balance 12/31/09	5,509,271
Forecast Interim Additions	7,961,087
Forecast Gross Salvage Value	714,882
Forecast Less Cost of Removal	1,429,764
Forecast Net Salvage Value	(714,882)
Forecast Total to be Recovered with COR	14,185,240
Forecast Total to be Recovered w/o COR	12,755,476
Accumulated Depreciation (2009 EOY)	(2,486,302)
Forecast Remaining Life Balance with COR	11,698,938
Forecast Remaining Life Balance w/o COR	10,269,173
Forecast Plant Balances	432,686,246
Remaining Life Rate with COR	2.70%
Remaining Life Rate w/o COR	2.37%
Reserve Variance with COR	(2,478,953)

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 331 Structures & Improvements

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E]			[F] Vintage Year Retirements	[G] [H]		[I] [J]		[K] Transfers and Adjustments	[L] End of Year Plant Balance*
			Reported Per Books				Adjustments		Adjusted Transaction Year			
			Beg Balance	Transaction Year Additions	Retirements		Advance Additions	Advance Retirements	Additions	Retirements		
1	1913	140	101,713	-	-	5,000	-	-	101,713	-	-	101,713
2	1914	139	620	-	-	-	-	-	620	-	-	102,333
3	1915	138	-	-	-	-	-	-	-	-	-	102,333
4	1916	137	2,570	-	-	-	-	-	2,570	-	-	104,903
5	1917	136	-	-	-	-	-	-	-	-	-	104,903
6	1918	135	-	-	-	-	-	-	-	-	-	104,903
7	1919	134	-	-	-	-	-	-	-	-	-	104,903
8	1920	133	-	-	-	-	-	-	-	-	-	104,903
9	1921	132	-	-	-	-	-	-	-	-	-	104,903
10	1922	131	-	-	-	-	-	-	-	-	-	104,903
11	1923	130	65	-	-	-	-	-	65	-	-	104,968
12	1924	129	-	-	-	-	-	-	-	-	-	104,968
13	1925	128	2,200	-	-	-	-	-	2,200	-	-	107,168
14	1926	127	1,233	-	-	810	-	-	1,233	-	-	108,401
15	1927	126	428	-	-	-	-	-	428	-	-	108,829
16	1928	125	753	-	-	-	-	-	753	-	-	109,582
17	1929	124	-	-	-	-	-	-	-	-	-	109,582
18	1930	123	313	-	-	-	-	-	313	-	-	109,895
19	1931	122	12,230	-	-	-	-	-	12,230	-	-	122,125
20	1932	121	-	-	-	-	-	-	-	-	-	122,125
21	1933	120	616	-	-	-	-	-	616	-	-	122,741
22	1934	119	-	-	-	-	-	-	-	-	-	122,741
23	1935	118	-	-	-	-	-	-	-	-	-	122,741
24	1936	117	-	-	-	-	-	-	-	-	-	122,741
25	1937	116	-	-	-	-	-	-	-	-	-	122,741
26	1938	115	216	-	-	-	-	-	216	-	-	122,957
27	1939	114	334	-	-	334	-	-	334	-	-	123,291
28	1940	113	2,700	-	-	-	-	-	2,700	-	-	125,991
29	1941	112	475	-	-	-	-	-	475	-	-	126,466
30	1942	111	-	-	-	-	-	-	-	-	-	126,466
31	1943	110	-	-	-	-	-	-	-	-	-	126,466
32	1944	109	2,524	-	-	1,599	-	-	2,524	-	-	128,990
33	1945	108	7,828	-	-	-	-	-	7,828	-	-	136,818
34	1946	107	27	-	-	27	-	-	27	-	-	136,845
35	1947	106	1,216	-	-	-	-	-	1,216	-	-	138,061
36	1948	105	-	-	-	-	-	-	-	-	-	138,061
37	1949	104	-	-	-	-	-	-	-	-	-	138,061
38	1950	103	-	-	-	-	-	-	-	-	-	138,061
39	1951	102	-	-	-	-	-	-	-	-	-	138,061
40	1952	101	-	-	-	-	-	-	-	-	-	138,061
41	1953	100	22	-	-	-	-	-	22	-	-	138,083
42	1954	99	-	-	-	-	-	-	-	-	-	138,083
43	1955	98	487	-	-	-	-	-	487	-	-	138,570
44	1956	97	81	-	-	-	-	-	81	-	-	138,651
45	1957	96	-	-	-	-	-	-	-	-	-	138,651
46	1958	95	4,625	-	-	4,625	-	-	4,625	-	-	143,276
47	1959	94	91	-	-	-	-	-	91	-	-	143,367
48	1960	93	-	-	-	-	-	-	-	-	-	143,367
49	1961	92	-	-	-	-	-	-	-	-	-	143,367
50	1962	91	396	-	-	-	-	-	396	-	-	143,763
51	1963	90	196	-	-	-	-	-	196	-	-	143,959
52	1964	89	2,018	-	-	-	-	-	2,018	-	-	145,977
53	1965	88	1,194	-	-	980	-	-	1,194	-	-	147,171
54	1966	87	2,185	-	-	-	-	-	2,185	-	-	149,356
55	1967	86	3,036	-	-	-	-	-	3,036	-	-	152,392
56	1968	85	3,958	-	-	-	-	-	3,958	-	-	156,350
57	1969	84	2,012	-	-	-	-	-	2,012	-	-	158,362
58	1970	83	28	-	-	-	-	-	28	-	-	158,390
59	1971	82	8,662	-	-	-	-	-	8,662	-	-	167,052
60	1972	81	-	-	-	-	-	-	-	-	-	167,052
61	1973	80	2,467	-	-	387	-	-	2,467	-	-	169,519
62	1974	79	41	-	-	-	-	-	41	-	-	169,560
63	1975	78	-	-	-	-	-	-	-	-	-	169,560
64	1976	77	4,262	-	-	-	-	-	4,262	-	-	173,822
65	1977	76	1,353	-	-	-	-	-	1,353	-	-	175,175
66	1978	75	1,968	-	-	-	-	-	1,968	-	-	177,143
67	1979	74	260	-	-	-	-	-	260	-	-	177,403
68	1980	73	-	-	-	-	-	-	-	-	-	177,403
69	1981	72	431	-	-	-	-	-	431	-	-	177,834
70	1982	71	3,144	-	-	-	-	-	3,144	-	-	180,978
71	1983	70	-	-	-	-	-	-	-	-	-	180,978
72	1984	69	-	-	-	-	-	-	-	-	-	180,978
73	1985	68	-	-	-	-	-	-	-	-	-	180,978
74	1986	67	6,521	-	-	-	-	-	6,521	-	-	187,499
75	1987	66	11,288	-	-	-	-	-	11,288	-	-	198,787
76	1988	65	12,219	-	-	-	-	-	12,219	-	-	211,006
77	1989	64	75,968	-	-	-	-	-	75,968	-	-	286,974
78	1990	63	18,588	-	-	-	-	-	18,588	-	-	305,562
79	1991	62	2,279	-	-	1,152	-	-	2,279	-	-	307,841
80	1992	61	6,477	-	-	-	-	-	6,477	-	-	314,318
81	1993	60	22,600	-	-	-	-	-	22,600	-	-	336,918
82	1994	59	6,200	-	-	-	-	-	6,200	-	-	343,118
83	1995	58	-	-	-	-	-	-	-	-	-	343,118
84	1996	57	-	-	-	-	-	-	-	-	-	343,118
85	1997	56	114,148	-	-	-	-	-	114,148	-	-	457,266
86	1998	55	17,595	-	-	-	-	-	17,595	-	-	474,861

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 331 Structures & Improvements

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Beg Balance	Transaction Year		Vintage Year Retirements	Advance Additions	Advance Retirements	Additions			Retirements
				Additions	Retirements							
87	1999	54		1,118	-	-		1,118	-		475,979	
88	2000	53		-	5,980	-		-	5,980		469,999	
89	2001	52		33,581	-	-		33,581	-		503,580	
90	2002	51		-	-	-		-	-		503,580	
91	2003	50		60,586	7,782	-		60,586	7,782		556,384	
92	2004	49		-	-	-		-	-		556,384	
93	2005	48		-	-	-		-	-		556,384	
94	2006	47		-	-	-		-	-		556,384	
95	2007	46		-	-	-		-	-		556,384	
96	2008	45		121,138	-	-		121,138	-		677,522	
97	2009	44		1,385	1,152	-		1,385	1,152		677,755	
98	Total		\$ 474,861	\$ 217,808	\$ 14,914	\$ 14,914	\$ -	\$ -	\$ 692,669	\$ 14,914	\$ -	\$ 20,191,995

99 Major Additions/Retirements

100	Routine Activity	\$ 217,808	\$ 14,914
101	Historical Interim Activity	1.08%	0.07%
102	Forecast Interim Activity	1.08%	0.07%

Major Additions\*\*

103	2010	43						7,311	501		684,565
104	2011	42						7,384	506		691,444
105	2012	41						7,459	511		698,392
106	2013	40						7,533	516		705,409
107	2014	39						7,609	521		712,497
108	2015	38						7,686	526		719,657
109	2016	37						7,763	532		726,888
110	2017	36						7,841	537		734,192
111	2018	35						7,920	542		741,569
112	2019	34						7,999	548		749,021
113	2020	33						8,080	553		756,547
114	2021	32						8,161	559		764,149
115	2022	31						8,243	564		771,827
116	2023	30						8,326	570		779,583
117	2024	29						8,409	576		787,416
118	2025	28						8,494	582		795,329
119	2026	27						8,579	587		803,320
120	2027	26						8,665	593		811,392
121	2028	25						8,752	599		819,545
122	2029	24						8,840	605		827,780
123	2030	23						8,929	611		836,098
124	2031	22						9,019	618		844,499
125	2032	21						9,109	624		852,985
126	2033	20						9,201	630		861,556
127	2034	19						9,293	636		870,213
128	2035	18						9,387	643		878,957
129	2036	17						9,481	649		887,789
130	2037	16						9,576	656		896,710
131	2038	15						9,673	662		905,720
132	2039	14						9,770	669		914,821
133	2040	13						9,868	676		924,014
134	2041	12						9,967	682		933,298
135	2042	11						10,067	689		942,676
136	2043	10						10,169	696		952,148
137	2044	9						10,271	703		961,716
138	2045	8						10,374	710		971,379
139	2046	7						10,478	717		981,140
140	2047	6						10,583	725		990,999
141	2048	5						10,690	732		1,000,957
142	2049	4						10,797	739		1,011,014
143	2050	3						10,906	747		1,021,173
144	2051	2						11,015	754		1,031,434
145	2052	1						11,126	762		1,041,798
146	2053	0								(1,041,798)	-
			\$ 1,083,472	\$ 41,674							\$ 56,785,617

\* Through vintage year 1999 the balances are 1999 remaining plant balances.  
\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	692,669
Forecast Additions	390,803
Total Additions	1,083,472
Gross Salvage Value	52,090
Less Cost of Removal	104,180
Net Salvage Value	(52,090)
Total to be Recovered	1,135,562

Forecast Plant Balances 56,785,617

Whole Life Accrual Rate	2.00%
Cost of Removal Accrual Rate	0.18%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.82%

Depreciable Service Life, years 50.0

Remaining Life Depreciation Rate Calculation

Account Balance - 12/31/09	677,755
Forecast Additions	390,803
Gross Salvage Value	52,090
Less Cost of Removal	104,180
Net Salvage Value	(52,090)

Forecast Plant Balances 36,593,622

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

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

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E] [F]				[G] [H]		[I] [J]		[K] Transfers and Adjustments	[L] End of Year Plant Balance*
			Reported Per Books			Vintage Year Retirements	Adjustments		Adjusted Transaction Year			
			Beg Balance	Transaction Year Additions	Retirements		Advance Additions	Advance Retirements	Additions	Retirements		
1	1913	140	976,972	-	-	-	-	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	-	-	1,264,314	
76	1988	65	90,509	-	15,000	-	-	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	

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

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

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Beg Balance	Transaction Year		Vintage Year Retirements	Advance Additions	Advance Retirements	Additions			Retirements
				Additions	Retirements							
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	-	-	85,752	6,015	-	-	1,530,035	
97	2009	44	-	26,286	-	14,506	14,506	26,286	-	-	1,518,255	
98	Total		\$ 1,422,790	\$ 161,042	\$ 80,083	\$ 80,083	\$ 14,506	\$ -	\$ 1,598,338	\$ 80,083	\$ -	\$ 115,683,137

99 Major Additions/Retirements

100	Routine Activity	\$ 175,548	\$ 80,083
101	Historical Interim Activity	0.15%	0.07%
102	Forecast Interim Activity	0.15%	0.07%

Major Additions\*\*

103	2010	43					2,304	1,051			1,519,508	
104	2011	42					2,306	1,052			1,520,762	
105	2012	41					2,308	1,053			1,522,017	
106	2013	40					2,310	1,054			1,523,273	
107	2014	39					2,312	1,055			1,524,530	
108	2015	38					2,313	1,055			1,525,788	
109	2016	37					2,315	1,056			1,527,047	
110	2017	36					2,317	1,057			1,528,308	
111	2018	35					2,319	1,058			1,529,569	
112	2019	34					2,321	1,059			1,530,831	
113	2020	33					2,323	1,060			1,532,094	
114	2021	32					2,325	1,061			1,533,359	
115	2022	31					2,327	1,061			1,534,624	
116	2023	30					2,329	1,062			1,535,891	
117	2024	29					2,331	1,063			1,537,158	
118	2025	28					2,333	1,064			1,538,426	
119	2026	27					2,335	1,065			1,539,696	
120	2027	26					2,336	1,066			1,540,967	
121	2028	25					2,338	1,067			1,542,238	
122	2029	24					2,340	1,068			1,543,511	
123	2030	23					2,342	1,069			1,544,785	
124	2031	22					2,344	1,069			1,546,060	
125	2032	21					2,346	1,070			1,547,335	
126	2033	20					2,348	1,071			1,548,612	
127	2034	19					2,350	1,072			1,549,890	
128	2035	18					2,352	1,073			1,551,169	
129	2036	17					2,354	1,074			1,552,449	
130	2037	16					2,356	1,075			1,553,731	
131	2038	15					2,358	1,076			1,555,013	
132	2039	14					2,360	1,076			1,556,296	
133	2040	13					2,362	1,077			1,557,580	
134	2041	12					2,364	1,078			1,558,866	
135	2042	11					2,366	1,079			1,560,152	
136	2043	10					2,368	1,080			1,561,440	
137	2044	9					2,369	1,081			1,562,728	
138	2045	8					2,371	1,082			1,564,018	
139	2046	7					2,373	1,083			1,565,308	
140	2047	6					2,375	1,084			1,566,600	
141	2048	5					2,377	1,084			1,567,893	
142	2049	4					2,379	1,085			1,569,187	
143	2050	3					2,381	1,086			1,570,482	
144	2051	2					2,383	1,087			1,571,778	
145	2052	1					2,385	1,088			1,573,075	
146	2053	0								(1,573,075)	-	
			\$ 1,699,144	\$ 126,069								\$ 182,167,182

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	1,598,338
Forecast Additions	100,806
Total Additions	1,699,144
Gross Salvage Value	78,654
Less Cost of Removal	157,307
Net Salvage Value	(78,654)
Total to be Recovered	1,777,798

Forecast Plant Balances 182,167,182

Whole Life Accrual Rate	0.98%
Cost of Removal Accrual Rate	0.09%
Whole Life Accrual Rate (Excluding Cost of Removal)	0.89%

Depreciable Service Life, years 102.5

Remaining Life Depreciation Rate Calculation

Account Balance - 12/31/09	1,518,255
Forecast Additions	100,806
Gross Salvage Value	78,654
Less Cost of Removal	157,307
Net Salvage Value	(78,654)

Forecast Plant Balances 66,484,045

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

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

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E]			[F] Vintage Year Retirements	[G] [H]		[I] [J]		[K] Transfers and Adjustments	[L] End of Year Plant Balance*
			Reported Per Books				Adjustments		Adjusted Transaction Year			
			Beg Balance	Additions	Retirements		Advance Additions	Advance Retirements	Additions	Retirements		
1	1913	140	16,105	-	-	-	-	16,105	-	-	16,105	
2	1914	139	-	-	-	-	-	-	-	-	16,105	
3	1915	138	-	-	-	-	-	-	-	-	16,105	
4	1916	137	-	-	-	-	-	-	-	-	16,105	
5	1917	136	-	-	-	-	-	-	-	-	16,105	
6	1918	135	-	-	-	-	-	-	-	-	16,105	
7	1919	134	-	-	-	-	-	-	-	-	16,105	
8	1920	133	-	-	-	-	-	-	-	-	16,105	
9	1921	132	-	-	-	-	-	-	-	-	16,105	
10	1922	131	-	-	-	-	-	-	-	-	16,105	
11	1923	130	-	-	-	-	-	-	-	-	16,105	
12	1924	129	-	-	-	-	-	-	-	-	16,105	
13	1925	128	-	-	-	-	-	-	-	-	16,105	
14	1926	127	-	-	-	-	-	-	-	-	16,105	
15	1927	126	-	-	-	-	-	-	-	-	16,105	
16	1928	125	-	-	-	-	-	-	-	-	16,105	
17	1929	124	-	-	-	-	-	-	-	-	16,105	
18	1930	123	-	-	-	-	-	-	-	-	16,105	
19	1931	122	278,688	-	95,792	-	-	278,688	-	-	294,793	
20	1932	121	-	-	-	-	-	-	-	-	294,793	
21	1933	120	-	-	-	-	-	-	-	-	294,793	
22	1934	119	-	-	-	-	-	-	-	-	294,793	
23	1935	118	-	-	-	-	-	-	-	-	294,793	
24	1936	117	-	-	-	-	-	-	-	-	294,793	
25	1937	116	-	-	-	-	-	-	-	-	294,793	
26	1938	115	-	-	-	-	-	-	-	-	294,793	
27	1939	114	-	-	-	-	-	-	-	-	294,793	
28	1940	113	-	-	-	-	-	-	-	-	294,793	
29	1941	112	-	-	-	-	-	-	-	-	294,793	
30	1942	111	-	-	-	-	-	-	-	-	294,793	
31	1943	110	-	-	-	-	-	-	-	-	294,793	
32	1944	109	-	-	-	-	-	-	-	-	294,793	
33	1945	108	-	-	-	-	-	-	-	-	294,793	
34	1946	107	-	-	-	-	-	-	-	-	294,793	
35	1947	106	-	-	-	-	-	-	-	-	294,793	
36	1948	105	-	-	-	-	-	-	-	-	294,793	
37	1949	104	12,212	-	-	-	-	12,212	-	-	307,005	
38	1950	103	-	-	-	-	-	-	-	-	307,005	
39	1951	102	-	-	-	-	-	-	-	-	307,005	
40	1952	101	-	-	-	-	-	-	-	-	307,005	
41	1953	100	-	-	-	-	-	-	-	-	307,005	
42	1954	99	-	-	-	-	-	-	-	-	307,005	
43	1955	98	-	-	-	-	-	-	-	-	307,005	
44	1956	97	-	-	-	-	-	-	-	-	307,005	
45	1957	96	-	-	-	-	-	-	-	-	307,005	
46	1958	95	-	-	-	-	-	-	-	-	307,005	
47	1959	94	-	-	-	-	-	-	-	-	307,005	
48	1960	93	34,564	-	-	-	-	34,564	-	-	341,569	
49	1961	92	-	-	-	-	-	-	-	-	341,569	
50	1962	91	-	-	-	-	-	-	-	-	341,569	
51	1963	90	-	-	-	-	-	-	-	-	341,569	
52	1964	89	145	-	-	-	-	145	-	-	341,714	
53	1965	88	-	-	-	-	-	-	-	-	341,714	
54	1966	87	-	-	-	-	-	-	-	-	341,714	
55	1967	86	-	-	-	-	-	-	-	-	341,714	
56	1968	85	-	-	-	-	-	-	-	-	341,714	
57	1969	84	-	-	-	-	-	-	-	-	341,714	
58	1970	83	-	-	-	-	-	-	-	-	341,714	
59	1971	82	-	-	-	-	-	-	-	-	341,714	
60	1972	81	-	-	-	-	-	-	-	-	341,714	
61	1973	80	-	-	-	-	-	-	-	-	341,714	
62	1974	79	-	-	-	-	-	-	-	-	341,714	
63	1975	78	9,762	-	-	-	-	9,762	-	-	351,476	
64	1976	77	-	-	-	-	-	-	-	-	351,476	
65	1977	76	-	-	-	-	-	-	-	-	351,476	
66	1978	75	-	-	-	-	-	-	-	-	351,476	
67	1979	74	-	-	-	-	-	-	-	-	351,476	
68	1980	73	-	-	-	-	-	-	-	-	351,476	
69	1981	72	-	-	-	-	-	-	-	-	351,476	
70	1982	71	-	-	-	-	-	-	-	-	351,476	
71	1983	70	-	-	-	-	-	-	-	-	351,476	
72	1984	69	680	-	-	-	-	680	-	-	352,156	
73	1985	68	881	-	-	-	-	881	-	-	353,037	
74	1986	67	-	-	-	-	-	-	-	-	353,037	
75	1987	66	-	-	-	-	-	-	-	-	353,037	
76	1988	65	-	-	-	-	-	-	-	-	353,037	
77	1989	64	-	-	-	-	-	-	-	-	353,037	
78	1990	63	-	-	-	-	-	-	-	-	353,037	
79	1991	62	-	-	-	-	-	-	-	-	353,037	
80	1992	61	-	-	-	-	-	-	-	-	353,037	
81	1993	60	-	-	-	-	-	-	-	-	353,037	
82	1994	59	-	-	-	-	-	-	-	-	353,037	
83	1995	58	-	-	-	-	-	-	-	-	353,037	
84	1996	57	-	-	-	-	-	-	-	-	353,037	
85	1997	56	-	-	-	-	-	-	-	-	353,037	
86	1998	55	-	-	-	-	-	-	-	-	353,037	

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

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

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Beg Balance	Transaction Year		Vintage Year Retirements	Advance Additions	Advance Retirements	Additions			Retirements
				Additions	Retirements							
87	1999	54		-	-	-		-	-		353,037	
88	2000	53		-	-	-		-	-		353,037	
89	2001	52		-	-	-		-	-		353,037	
90	2002	51		434,538	-	-		434,538	-		787,575	
91	2003	50		326,058	47,896	-		326,058	47,896		1,065,737	
92	2004	49		-	23,948	-		-	23,948		1,041,789	
93	2005	48		352,248	-	-		352,248	-		1,394,037	
94	2006	47		241,070	23,948	-		241,070	23,948		1,611,159	
95	2007	46		8,299	-	-		8,299	-		1,619,458	
96	2008	45		-	-	-		-	-		1,619,458	
97	2009	44		-	-	-		-	-		1,619,458	
98	Total		\$ 353,037	\$ 1,362,213	\$ 95,792	\$ 95,792	\$ -	\$ -	\$ 1,715,250	\$ 95,792	\$ -	\$ 34,374,089
99	Major Additions/Retirements											
100	2002		\$	434,538								
101	Routine Activity		\$	927,675	\$	95,792						
102	Historical Interim Activity			2.70%		0.28%						
103	Forecast Interim Activity			2.70%		0.28%						
							Major Additions**					
104	2010	43					95,000		4,513		1,709,945	
105	2011	42					610,000		4,765		2,315,180	
106	2012	41					540,000		6,452		2,848,728	
107	2013	40							7,939		3,380,789	
108	2014	39						91,239	9,421		3,462,607	
109	2015	38						93,448	9,649		3,546,405	
110	2016	37						95,709	9,883		3,632,232	
111	2017	36						98,025	10,122		3,720,135	
112	2018	35						100,398	10,367		3,810,165	
113	2019	34						102,827	10,618		3,902,375	
114	2020	33						105,316	10,875		3,996,815	
115	2021	32						107,865	11,138		4,093,542	
116	2022	31						110,475	11,408		4,192,609	
117	2023	30						113,149	11,684		4,294,074	
118	2024	29						115,887	11,967		4,397,994	
119	2025	28						118,691	12,256		4,504,430	
120	2026	27						121,564	12,553		4,613,441	
121	2027	26						124,506	12,857		4,725,090	
122	2028	25						127,519	13,168		4,839,441	
123	2029	24						130,605	13,486		4,956,560	
124	2030	23						133,766	13,813		5,076,513	
125	2031	22						137,003	14,147		5,199,369	
126	2032	21						140,319	14,489		5,325,199	
127	2033	20						143,714	14,840		5,454,073	
128	2034	19						147,192	15,199		5,586,066	
129	2035	18						150,755	15,567		5,721,254	
130	2036	17						154,403	15,944		5,859,713	
131	2037	16						158,140	16,330		6,001,524	
132	2038	15						161,967	16,725		6,146,766	
133	2039	14						165,887	17,130		6,295,523	
134	2040	13						169,901	17,544		6,447,880	
135	2041	12						174,013	17,969		6,603,924	
136	2042	11						178,224	18,403		6,763,745	
137	2043	10						182,537	18,849		6,927,433	
138	2044	9						186,955	19,305		7,095,083	
139	2045	8						191,479	19,772		7,266,791	
140	2046	7						196,113	20,251		7,442,653	
141	2047	6						200,860	20,741		7,622,772	
142	2048	5						205,721	21,243		7,807,250	
143	2049	4						210,699	21,757		7,996,192	
144	2050	3						215,798	22,283		8,189,707	
145	2051	2						221,021	22,823		8,387,905	
146	2052	1						226,370	23,375		8,590,900	
147	2053	0								(8,590,900)	-	
			\$	7,525,309	\$	719,409						\$ 265,124,881

\* Through vintage year 1999 the balances are 1999 remaining plant balances.  
\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	1,715,250
Forecast Additions	5,810,059
Total Additions	7,525,309
Gross Salvage Value	429,545
Less Cost of Removal	859,090
Net Salvage Value	(429,545)
Total to be Recovered	7,954,854

Forecast Plant Balances 265,124,881

Whole Life Accrual Rate	3.00%
Cost of Removal Accrual Rate	0.32%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.68%

Depreciable Service Life, years 33.3

Remaining Life Depreciation Rate Calculation

Account Balance - 12/31/09	1,619,458
Forecast Additions	5,810,059
Gross Salvage Value	429,545
Less Cost of Removal	859,090
Net Salvage Value	(429,545)

Forecast Plant Balances 230,750,792



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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

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

Line	[A] Vintage Year	[B] Vintage Age	[C] [D] [E] [F]				[G] [H]		[I] [J]		[K] Transfers and Adjustments	[L] End of Year Plant Balance*
			Reported Per Books			Vintage Year Retirements	Adjustments		Adjusted Transaction Year			
			Beg Balance	Additions	Retirements		Advance Additions	Advance Retirements	Additions	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	-	-	-	-	-	-	-	-	-	
15	1927	126	-	-	-	-	-	-	-	-	-	
16	1928	125	-	-	-	-	-	-	-	-	-	
17	1929	124	-	-	-	-	-	-	-	-	-	
18	1930	123	-	-	-	-	-	-	-	-	-	
19	1931	122	63,663	-	-	34,118	-	-	63,663	-	63,663	
20	1932	121	-	-	-	-	-	-	-	-	63,663	
21	1933	120	-	-	-	-	-	-	-	-	63,663	
22	1934	119	-	-	-	-	-	-	-	-	63,663	
23	1935	118	-	-	-	-	-	-	-	-	63,663	
24	1936	117	-	-	-	-	-	-	-	-	63,663	
25	1937	116	20,340	-	-	-	-	-	20,340	-	84,003	
26	1938	115	-	-	-	-	-	-	-	-	84,003	
27	1939	114	-	-	-	-	-	-	-	-	84,003	
28	1940	113	22	-	-	22	-	-	22	-	84,025	
29	1941	112	159	-	-	159	-	-	159	-	84,184	
30	1942	111	259	-	-	-	-	-	259	-	84,443	
31	1943	110	-	-	-	-	-	-	-	-	84,443	
32	1944	109	-	-	-	-	-	-	-	-	84,443	
33	1945	108	-	-	-	-	-	-	-	-	84,443	
34	1946	107	1,161	-	-	1,161	-	-	1,161	-	85,604	
35	1947	106	874	-	-	-	-	-	874	-	86,478	
36	1948	105	-	-	-	-	-	-	-	-	86,478	
37	1949	104	-	-	-	-	-	-	-	-	86,478	
38	1950	103	399	-	-	-	-	-	399	-	86,877	
39	1951	102	-	-	-	-	-	-	-	-	86,877	
40	1952	101	-	-	-	-	-	-	-	-	86,877	
41	1953	100	-	-	-	-	-	-	-	-	86,877	
42	1954	99	2,342	-	-	-	-	-	2,342	-	89,219	
43	1955	98	-	-	-	-	-	-	-	-	89,219	
44	1956	97	-	-	-	-	-	-	-	-	89,219	
45	1957	96	-	-	-	-	-	-	-	-	89,219	
46	1958	95	-	-	-	-	-	-	-	-	89,219	
47	1959	94	-	-	-	-	-	-	-	-	89,219	
48	1960	93	-	-	-	-	-	-	-	-	89,219	
49	1961	92	197	-	-	-	-	-	197	-	89,416	
50	1962	91	-	-	-	-	-	-	-	-	89,416	
51	1963	90	9,687	-	-	9,539	-	-	9,687	-	99,103	
52	1964	89	-	-	-	-	-	-	-	-	99,103	
53	1965	88	1,224	-	-	529	-	-	1,224	-	100,327	
54	1966	87	508	-	-	508	-	-	508	-	100,835	
55	1967	86	-	-	-	-	-	-	-	-	100,835	
56	1968	85	-	-	-	-	-	-	-	-	100,835	
57	1969	84	-	-	-	-	-	-	-	-	100,835	
58	1970	83	1,115	-	-	-	-	-	1,115	-	101,950	
59	1971	82	-	-	-	-	-	-	-	-	101,950	
60	1972	81	-	-	-	-	-	-	-	-	101,950	
61	1973	80	-	-	-	-	-	-	-	-	101,950	
62	1974	79	-	-	-	-	-	-	-	-	101,950	
63	1975	78	-	-	-	-	-	-	-	-	101,950	
64	1976	77	-	-	-	-	-	-	-	-	101,950	
65	1977	76	244	-	-	-	-	-	244	-	102,194	
66	1978	75	-	-	-	-	-	-	-	-	102,194	
67	1979	74	-	-	-	-	-	-	-	-	102,194	
68	1980	73	-	-	-	-	-	-	-	-	102,194	
69	1981	72	-	-	-	-	-	-	-	-	102,194	
70	1982	71	-	-	-	-	-	-	-	-	102,194	
71	1983	70	-	-	-	-	-	-	-	-	102,194	
72	1984	69	-	-	-	-	-	-	-	-	102,194	
73	1985	68	-	-	-	-	-	-	-	-	102,194	
74	1986	67	3,303	-	-	-	-	-	3,303	-	105,497	
75	1987	66	-	-	-	-	-	-	-	-	105,497	
76	1988	65	-	-	-	-	-	-	-	-	105,497	
77	1989	64	-	-	-	-	-	-	-	-	105,497	
78	1990	63	1,663	-	-	-	-	-	1,663	-	107,160	
79	1991	62	-	-	-	-	-	-	-	-	107,160	
80	1992	61	-	-	-	-	-	-	-	-	107,160	
81	1993	60	-	-	-	-	-	-	-	-	107,160	
82	1994	59	-	-	-	-	-	-	-	-	107,160	
83	1995	58	630,185	-	-	24,442	-	-	630,185	-	737,345	
84	1996	57	-	-	-	-	-	-	-	-	737,345	
85	1997	56	-	-	-	-	-	-	-	-	737,345	
86	1998	55	-	-	-	-	-	-	-	-	737,345	

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

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

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Beg Balance	Transaction Year		Vintage Year Retirements	Advance Additions	Advance Retirements	Additions			Retirements
				Additions	Retirements							
87	1999	54		-	-	-	-	-	-	-	737,345	
88	2000	53	145,459	-	-	-	-	145,459	-	-	882,804	
89	2001	52	-	-	-	-	-	-	-	-	882,804	
90	2002	51	-	-	-	-	-	-	-	-	882,804	
91	2003	50	-	70,478	-	-	-	-	70,478	-	812,326	
92	2004	49	-	-	-	-	-	-	-	-	812,326	
93	2005	48	-	-	-	-	-	-	-	-	812,326	
94	2006	47	-	-	-	-	-	-	-	-	812,326	
95	2007	46	-	-	-	-	-	-	-	-	812,326	
96	2008	45	-	-	-	-	-	-	-	393,832	1,206,158	
97	2009	44	-	-	-	31,429	-	31,429	-	-	1,237,587	
98	Total		\$ 737,345	\$ 145,459	\$ 70,478	\$ 70,478	\$ 31,429	\$ -	\$ 914,233	\$ 70,478	\$ 393,832	\$ 18,769,448

99 Major Additions/Retirements

100	Routine Activity	\$ 176,888	\$ 70,478
101	Historical Interim Activity	0.94%	0.38%
102	Forecast Interim Activity	0.94%	0.38%

Major Additions\*\*

103	2010	43						11,663	4,647		1,244,603
104	2011	42						11,729	4,673		1,251,659
105	2012	41						11,796	4,700		1,258,755
106	2013	40						11,863	4,727		1,265,892
107	2014	39						11,930	4,753		1,273,068
108	2015	38						11,998	4,780		1,280,286
109	2016	37						12,066	4,807		1,287,544
110	2017	36						12,134	4,835		1,294,844
111	2018	35						12,203	4,862		1,302,185
112	2019	34						12,272	4,890		1,309,567
113	2020	33						12,342	4,917		1,316,991
114	2021	32						12,412	4,945		1,324,458
115	2022	31						12,482	4,973		1,331,967
116	2023	30						12,553	5,001		1,339,518
117	2024	29						12,624	5,030		1,347,112
118	2025	28						12,696	5,058		1,354,749
119	2026	27						12,767	5,087		1,362,430
120	2027	26						12,840	5,116		1,370,154
121	2028	25						12,913	5,145		1,377,922
122	2029	24						12,986	5,174		1,385,734
123	2030	23						13,060	5,203		1,393,590
124	2031	22						13,134	5,233		1,401,491
125	2032	21						13,208	5,263		1,409,436
126	2033	20						13,283	5,292		1,417,427
127	2034	19						13,358	5,322		1,425,462
128	2035	18						13,434	5,353		1,433,544
129	2036	17						13,510	5,383		1,441,671
130	2037	16						13,587	5,413		1,449,844
131	2038	15						13,664	5,444		1,458,064
132	2039	14						13,741	5,475		1,466,330
133	2040	13						13,819	5,506		1,474,643
134	2041	12						13,897	5,537		1,483,003
135	2042	11						13,976	5,569		1,491,411
136	2043	10						14,055	5,600		1,499,866
137	2044	9						14,135	5,632		1,508,370
138	2045	8						14,215	5,664		1,516,921
139	2046	7						14,296	5,696		1,525,521
140	2047	6						14,377	5,728		1,534,170
141	2048	5						14,458	5,761		1,542,867
142	2049	4						14,540	5,793		1,551,614
143	2050	3						14,623	5,826		1,560,411
144	2051	2						14,706	5,859		1,569,257
145	2052	1						14,789	5,892		1,578,154
146	2053	0								(1,578,154)	-
			\$ 1,480,366	\$ 296,044							\$ 79,181,954

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	914,233
Forecast Additions	566,133
Total Additions	1,480,366
Gross Salvage Value	78,908
Less Cost of Removal	157,815
Net Salvage Value	(78,908)
Total to be Recovered	1,559,274

Forecast Plant Balances 79,181,954

Whole Life Accrual Rate	1.97%
Cost of Removal Accrual Rate	0.20%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.77%

Depreciable Service Life, years 50.8

Remaining Life Depreciation Rate Calculation

Account Balance - 12/31/09	1,237,587
Forecast Additions	566,133
Gross Salvage Value	78,908
Less Cost of Removal	157,815
Net Salvage Value	(78,908)

Forecast Plant Balances 60,412,506

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

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

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

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

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

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Beg Balance	Transaction Year		Vintage Year Retirements	Advance Additions	Advance Retirements	Additions			Retirements
				Additions	Retirements							
87	1999	54		12,489	-	-			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	-	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		10,049	-	-	87,105		97,154	-	456,215	
98	Total		\$ 232,037	\$ 144,659	\$ 7,586	\$ 7,586	\$ 87,105	\$ -	\$ 463,801	\$ 7,586	\$ -	\$ 7,925,782

99 Major Additions/Retirements

100	Routine Activity	\$ 231,764	\$ 7,586
101	Historical Interim Activity	2.92%	0.10%
102	Forecast Interim Activity	2.92%	0.10%

Major Additions\*\*

103	2010	43					13,341	437			469,119
104	2011	42					13,718	449			482,388
105	2012	41					14,106	462			496,032
106	2013	40					14,505	475			510,062
107	2014	39					14,915	488			524,489
108	2015	38					15,337	502			539,324
109	2016	37					15,771	516			554,579
110	2017	36					16,217	531			570,265
111	2018	35					16,676	546			586,395
112	2019	34					17,147	561			602,981
113	2020	33					17,632	577			620,036
114	2021	32					18,131	593			637,573
115	2022	31					18,644	610			655,607
116	2023	30					19,171	628			674,151
117	2024	29					19,713	645			693,219
118	2025	28					20,271	664			712,826
119	2026	27					20,844	682			732,988
120	2027	26					21,434	702			753,721
121	2028	25					22,040	721			775,039
122	2029	24					22,664	742			796,961
123	2030	23					23,305	763			819,503
124	2031	22					23,964	784			842,682
125	2032	21					24,642	807			866,517
126	2033	20					25,339	829			891,027
127	2034	19					26,055	853			916,229
128	2035	18					26,792	877			942,144
129	2036	17					27,550	902			968,792
130	2037	16					28,329	927			996,194
131	2038	15					29,131	953			1,024,372
132	2039	14					29,954	980			1,053,346
133	2040	13					30,802	1,008			1,083,139
134	2041	12					31,673	1,037			1,113,775
135	2042	11					32,569	1,066			1,145,278
136	2043	10					33,490	1,096			1,177,672
137	2044	9					34,437	1,127			1,210,982
138	2045	8					35,411	1,159			1,245,234
139	2046	7					36,413	1,192			1,280,455
140	2047	6					37,443	1,226			1,316,673
141	2048	5					38,502	1,260			1,353,914
142	2049	4					39,591	1,296			1,392,209
143	2050	3					40,711	1,333			1,431,588
144	2051	2					41,862	1,370			1,472,080
145	2052	1					43,046	1,409			1,513,717
146	2053	0							(1,513,717)		-
			\$ 1,557,088	\$ 43,371							\$ 46,371,063

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	463,801
Forecast Additions	1,093,287
Total Additions	1,557,088
Gross Salvage Value	75,686
Less Cost of Removal	151,372
Net Salvage Value	(75,686)
Total to be Recovered	1,632,774

Forecast Plant Balances 46,371,063

Whole Life Accrual Rate	3.52%
Cost of Removal Accrual Rate	0.33%
Whole Life Accrual Rate (Excluding Cost of Removal)	3.19%

Depreciable Service Life, years 28.4

Remaining Life Depreciation Rate Calculation

Account Balance - 12/31/09	456,215
Forecast Additions	1,093,287
Gross Salvage Value	75,686
Less Cost of Removal	151,372
Net Salvage Value	(75,686)

Forecast Plant Balances 38,445,281

Summary by Plant  
The Empire District Electric Company  
**State Line Combined Cycle**

Account	Description	Direct Investment 2009\$	Depreciation Rate
341	Structures & Improvements	10,537,351	2.11%
342	Fuel Holders, Producers & Accessories	2,411,873	4.58%
343	Prime Movers	107,266,879	2.01%
344	Generators	28,471,627	2.44%
345	Accessory Electric Equipment	11,132,362	2.19%
346	Misc Power Equipment	2,819,098	2.08%
<b>Total</b>		162,639,190	<span style="border: 1px solid black; padding: 2px;">2.14%</span> whole life weighted average rate

**Remaining Life Depreciation Rate Calculation**

Per Books Balance 12/31/09	162,639,190
Forecast Interim Additions	20,976,935
Forecast Gross Salvage Value	17,231,306
Forecast Less Cost of Removal	10,484,965
Forecast Net Salvage Value	6,746,341
Forecast Total to be Recovered with COR	176,869,784
Forecast Total to be Recovered w/o COR	166,384,819
Accumulated Depreciation (2009 EOY)	(28,081,610)
Forecast Remaining Life Balance with COR	148,788,174
Forecast Remaining Life Balance w/o COR	138,303,209
Forecast Plant Balances	7,195,737,454
Remaining Life Rate with COR	2.07%
Remaining Life Rate w/o COR	1.92%
Reserve Variance with COR	5,418,734

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 341 Structures & Improvements

Initial Plant Balance

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								
1	1995	56	2,052,941		-	-			2,052,941	-	2,052,941	
2	1996	55	-		-	-			-	-	2,052,941	
3	1997	54	980,448		-	-			980,448	-	3,033,389	
4	1998	53	-		-	-			-	-	3,033,389	
5	1999	52	-		-	-			-	-	3,033,389	
6	2000	51	-		-	-			-	-	3,033,389	
7	2001	50	5,168,284		-	-			5,168,284	-	8,201,673	
8	2002	49	2,070,108		-	-			2,070,108	-	10,271,781	
9	2003	48	84,232		-	-			84,232	-	10,356,013	
10	2004	47	130,126		-	-			130,126	-	10,486,139	
11	2005	46	43,991		-	-			43,991	-	10,530,130	
12	2006	45	-		-	-			-	-	10,530,130	
13	2007	44	-		-	-			-	-	10,530,130	
14	2008	43	-		-	-	11,522		11,522	-	10,541,652	
15	2009	42	-		-	-	(4,301)		(4,301)	-	10,537,351	
16	Total		\$ 3,033,389	\$ 7,496,741	\$ -	\$ -	\$ 7,221	\$ -	\$ 10,537,351	\$ -	\$ 108,224,437	
17	Major Additions/Retirements											
18	2001			\$ 5,168,284								
19	2002			\$ 2,070,108								
20	Routine Activity (excluding Westar advances) \$ 258,349 \$ -											
21	Historical Interim Activity 0.24% 0.00%											
22	Forecast Interim Activity 0.24% 0.00%											
23	2010	41						Major Additions**	25,154	-		10,562,505
24	2011	40							25,214	-		10,587,720
25	2012	39							25,275	-		10,612,994
26	2013	38							25,335	-		10,638,329
27	2014	37							25,395	-		10,663,725
28	2015	36							25,456	-		10,689,181
29	2016	35							25,517	-		10,714,697
30	2017	34							25,578	-		10,740,275
31	2018	33							25,639	-		10,765,914
32	2019	32							25,700	-		10,791,614
33	2020	31							25,761	-		10,817,375
34	2021	30							25,823	-		10,843,198
35	2022	29							25,884	-		10,869,082
36	2023	28							25,946	-		10,895,029
37	2024	27							26,008	-		10,921,037
38	2025	26							26,070	-		10,947,107
39	2026	25							26,132	-		10,973,239
40	2027	24							26,195	-		10,999,434
41	2028	23							26,257	-		11,025,692
42	2029	22							26,320	-		11,052,012
43	2030	21							26,383	-		11,078,395
44	2031	20							26,446	-		11,104,841
45	2032	19							26,509	-		11,131,350
46	2033	18							26,572	-		11,157,922
47	2034	17							26,636	-		11,184,558
48	2035	16							26,699	-		11,211,257
49	2036	15							26,763	-		11,238,020
50	2037	14							26,827	-		11,264,847
51	2038	13							26,891	-		11,291,738
52	2039	12							26,955	-		11,318,693
53	2040	11							27,020	-		11,345,713
54	2041	10							27,084	-		11,372,797
55	2042	9							27,149	-		11,399,945
56	2043	8							27,213	-		11,427,159
57	2044	7							27,278	-		11,454,437
58	2045	6							27,344	-		11,481,781
59	2046	5							27,409	-		11,509,190
60	2047	4							27,474	-		11,536,664
61	2048	3							27,540	-		11,564,204
62	2049	2							27,606	-		11,591,810
63	2050	1							27,671	-		11,619,481
64	2051	0								(11,619,481)		-
									\$ -	\$ 11,619,481	\$ -	\$ 562,619,397

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	10,537,351
Forecast Additions	1,082,130
Total Additions	11,619,481
Gross Salvage Value	929,558
Less Cost of Removal	1,161,948
Net Salvage Value	(232,390)
Total to be Recovered	11,851,871
Forecast Plant Balances	562,619,397

Whole Life Accrual Rate	2.11%
Cost of Removal Accrual Rate	0.21%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.90%

Depreciable Service Life, years 47.5

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/09	10,537,351
Forecast Additions	1,082,130
Gross Salvage Value	929,558
Less Cost of Removal	1,161,948
Net Salvage Value	(232,390)
Forecast Plant Balances	454,394,960

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

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

Initial Plant Balance

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								
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	-	-	-	-			-	-	427,796	
13	2007	44	-	-	-	-			-	-	427,796	
14	2008	43	-	-	80,899	-	185,929		185,929	80,899	532,826	
15	2009	42	-	-	6,152	-	1,885,199		1,885,199	6,152	2,411,873	
16	Total		\$ 216,034	\$ 211,762	\$ 87,051	\$ 87,051	\$ 2,071,128	\$ -	\$ 2,498,924	\$ 87,051	\$ -	\$ 6,848,145

17 Major Additions/Retirements

18	Routine Activity (excluding Westar advances)	\$ 211,762	\$ 87,051
19	Historical Interim Activity	3.09%	1.27%
20	Forecast Interim Activity	3.09%	1.27%

Major Additions\*\*

21	2010	41				74,581	30,659		2,455,795		
22	2011	40				75,939	31,217		2,500,518		
23	2012	39				77,322	31,786		2,546,054		
24	2013	38				78,730	32,364		2,592,420		
25	2014	37				80,164	32,954		2,639,631		
26	2015	36				81,624	33,554		2,687,701		
27	2016	35				83,111	34,165		2,736,646		
28	2017	34				84,624	34,787		2,786,483		
29	2018	33				86,165	35,421		2,837,228		
30	2019	32				87,734	36,066		2,888,896		
31	2020	31				89,332	36,723		2,941,506		
32	2021	30				90,959	37,391		2,995,073		
33	2022	29				92,615	38,072		3,049,616		
34	2023	28				94,302	38,766		3,105,152		
35	2024	27				96,019	39,472		3,161,700		
36	2025	26				97,768	40,190		3,219,278		
37	2026	25				99,548	40,922		3,277,904		
38	2027	24				101,361	41,667		3,337,597		
39	2028	23				103,207	42,426		3,398,378		
40	2029	22				105,086	43,199		3,460,265		
41	2030	21				107,000	43,986		3,523,280		
42	2031	20				108,949	44,787		3,587,442		
43	2032	19				110,933	45,602		3,652,773		
44	2033	18				112,953	46,433		3,719,293		
45	2034	17				115,010	47,278		3,787,025		
46	2035	16				117,104	48,139		3,855,990		
47	2036	15				119,237	49,016		3,926,211		
48	2037	14				121,408	49,908		3,997,711		
49	2038	13				123,619	50,817		4,070,513		
50	2039	12				125,871	51,743		4,144,641		
51	2040	11				128,163	52,685		4,220,119		
52	2041	10				130,497	53,645		4,296,971		
53	2042	9				132,873	54,621		4,375,223		
54	2043	8				135,293	55,616		4,454,899		
55	2044	7				137,757	56,629		4,536,027		
56	2045	6				140,265	57,660		4,618,632		
57	2046	5				142,820	58,710		4,702,742		
58	2047	4				145,421	59,779		4,788,383		
59	2048	3				148,069	60,868		4,875,584		
60	2049	2				150,765	61,977		4,964,373		
61	2050	1				153,511	63,105		5,054,779		
62	2051	0						(5,054,779)	-		
			\$ -	\$ 6,986,636	\$ 1,931,857				\$ 154,618,599		

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	2,498,924
Forecast Additions	4,487,712
Total Additions	6,986,636
Gross Salvage Value	404,382
Less Cost of Removal	505,478
Net Salvage Value	(101,096)
Total to be Recovered	7,087,731

Forecast Plant Balances 154,618,599

Whole Life Accrual Rate	4.58%
Cost of Removal Accrual Rate	0.33%
Whole Life Accrual Rate (Excluding Cost of Removal)	4.26%

Depreciable Service Life, years 21.8

Account Balance 12/31/09	2,411,873
Forecast Additions	4,487,712
Gross Salvage Value	404,382
Less Cost of Removal	505,478
Net Salvage Value	(101,096)
Forecast Plant Balances	147,770,454

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 343 Prime Movers

Line	Vintage Year	Vintage Age	Initial Plant Balance				Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Reported Per Books			Vintage Year Retirements	Advance Additions	Advance Retirements	Additions	Retirements		
			Beg Balance	Transaction Year Additions	Transaction Year Retirements							
1	1995	56	-	-	-	-	-	-	-	-	-	
2	1996	55	-	-	-	-	-	-	-	-	-	
3	1997	54	12,678,547	-	205,620	-	-	12,678,547	-	-	12,678,547	
4	1998	53	-	-	-	-	-	-	-	-	12,678,547	
5	1999	52	-	74,707	-	-	-	74,707	-	-	12,753,254	
6	2000	51	-	212,156	-	-	-	212,156	-	-	12,965,410	
7	2001	50	-	90,852,813	-	441,808	(4,087,066)	86,765,747	-	-	99,731,157	
8	2002	49	-	1,702,065	-	-	-	1,702,065	-	-	101,433,222	
9	2003	48	-	-	-	-	-	-	-	-	101,433,222	
10	2004	47	-	68,742	-	-	-	68,742	-	-	101,501,964	
11	2005	46	-	-	-	-	-	-	-	-	101,501,964	
12	2006	45	-	354,505	-	-	-	354,505	-	-	101,856,469	
13	2007	44	-	-	-	-	(413)	-	(413)	-	101,856,056	
14	2008	43	-	-	415,707	-	177,666	177,666	415,707	-	101,618,015	
15	2009	42	-	5,594,032	231,721	-	286,553	5,880,585	231,721	-	107,266,879	
16	Total		\$ 12,678,547	\$ 98,859,020	\$ 647,428	\$ 647,428	\$ (3,623,260)	\$ -	\$ 107,914,307	\$ 647,428	\$ -	\$ 969,274,706
17	Major Additions/Retirements											
18	2001			\$ 90,852,813								
19	2002			\$ 1,702,065								
20	2009			\$ 5,594,032								
21	Routine Activity (excluding Westar advances)			\$ 710,110	\$ 647,428							
22	Historical Interim Activity			0.07%	0.07%							
23	Forecast Interim Activity			0.07%	0.07%							
24	2010	41					Major Additions**					
25	2011	40					855,000		71,649			108,050,230
26	2012	39					1,440,000		72,172			109,418,058
27	2013	38					4,020,000		73,086			113,364,972
28	2014	37					4,230,000		75,722			117,519,250
29	2015	36					1,200,000		78,497			118,640,752
30	2016	35						86,919	79,246			118,648,425
31	2017	34						86,924	79,251			118,656,098
32	2018	33						86,930	79,256			118,663,771
33	2019	32						86,935	79,262			118,671,445
34	2020	31						86,941	79,267			118,679,119
35	2021	30						86,947	79,272			118,686,794
36	2022	29						86,952	79,277			118,694,470
37	2023	28						86,958	79,282			118,702,145
38	2024	27						86,964	79,287			118,709,822
39	2025	26						86,969	79,292			118,717,499
40	2026	25						86,975	79,297			118,725,176
41	2027	24						86,980	79,303			118,732,854
42	2028	23						86,986	79,308			118,740,532
43	2029	22						86,992	79,313			118,748,211
44	2030	21						86,997	79,318			118,755,890
45	2031	20						87,003	79,323			118,763,570
46	2032	19						87,009	79,328			118,771,250
47	2033	18						87,014	79,333			118,778,931
48	2034	17						87,020	79,339			118,786,612
49	2035	16						87,025	79,344			118,794,294
50	2036	15						87,031	79,349			118,801,977
51	2037	14						87,037	79,354			118,809,659
52	2038	13						87,042	79,359			118,817,343
53	2039	12						87,048	79,364			118,825,027
54	2040	11						87,054	79,369			118,832,711
55	2041	10						87,059	79,374			118,840,396
56	2042	9						87,065	79,380			118,848,081
57	2043	8						87,070	79,385			118,855,767
58	2044	7						87,076	79,390			118,863,453
59	2045	6						87,082	79,395			118,871,140
60	2046	5						87,087	79,400			118,878,827
61	2047	4						87,093	79,405			118,886,515
62	2048	3						87,099	79,410			118,894,203
63	2049	2						87,104	79,416			118,901,892
64	2050	1						87,110	79,421			118,909,581
65	2051	0						87,116	79,426			118,917,271
										(118,917,271)		-
								\$ 11,745,000	\$ 111,046,920	\$ 3,874,649		\$ 5,812,448,716

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	107,914,307
Forecast Additions	14,877,613
Total Additions	122,791,920
Gross Salvage Value	11,891,727
Less Cost of Removal	5,945,864
Net Salvage Value	5,945,864
Total to be Recovered	116,846,056
Forecast Plant Balances	5,812,448,716
Whole Life Accrual Rate	2.01%
Cost of Removal Accrual Rate	0.10%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.91%
Depreciable Service Life, years	49.7

Account Balance 12/31/09	107,266,879
Forecast Additions	14,877,613
Gross Salvage Value	11,891,727
Less Cost of Removal	5,945,864
Net Salvage Value	5,945,864
Forecast Plant Balances	4,843,174,010



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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 344 Generators

Line	Vintage Year	Vintage Age	Initial Plant Balance				Adjustments				Transfers and Adjustments	End of Year Plant Balance*	
			Reported Per Books		Vintage Year	Adjustments		Adjusted Transaction Year					
			Transaction Year	Transaction Year		Advance	Advance	Additions	Retirements				
			Beg Balance	Additions	Retirements	Retirements	Additions	Retirements	Additions	Retirements			
1	1995	56	-	-	-	-	-	-	-	-	-	-	
2	1996	55	-	-	-	-	-	-	-	-	-	-	
3	1997	54	4,381,640	-	-	-	-	-	4,381,640	-	-	4,381,640	
4	1998	53	-	-	-	-	-	-	-	-	-	4,381,640	
5	1999	52	-	-	-	-	-	-	-	-	-	4,381,640	
6	2000	51	-	-	-	-	-	-	-	-	-	4,381,640	
7	2001	50	-	26,044,201	-	8,467,351	-	-	-	26,044,201	-	30,425,841	
8	2002	49	-	-	-	-	-	-	-	-	-	30,425,841	
9	2003	48	-	-	-	-	-	-	-	-	-	30,425,841	
10	2004	47	-	-	-	-	-	-	-	-	-	30,425,841	
11	2005	46	-	-	-	-	-	-	-	-	-	30,425,841	
12	2006	45	-	-	-	-	-	-	-	-	-	30,425,841	
13	2007	44	-	-	-	-	-	-	-	-	-	30,425,841	
14	2008	43	-	-	-	-	137,659	-	-	137,659	-	30,563,500	
15	2009	42	-	-	8,467,351	-	6,375,478	-	-	6,375,478	8,467,351	28,471,627	
16	Total		\$ 4,381,640	\$ 26,044,201	\$ 8,467,351	\$ 8,467,351	\$ 6,513,137	\$ -	\$ -	\$ 36,938,978	\$ 8,467,351	\$ -	\$ 289,542,574
17	Major Additions/Retirements												
18	2001			\$ 26,044,201									
19	2009				\$ 8,467,351								
20	Routine Activity (excluding Westar advances)		\$ -	\$ -									
21	Historical Interim Activity			0.00%	0.00%								
22	Forecast Interim Activity			0.00%	0.00%								
23	2010	41							Major Additions**				28,471,627
24	2011	40											28,471,627
25	2012	39											28,471,627
26	2013	38											28,471,627
27	2014	37											28,471,627
28	2015	36											28,471,627
29	2016	35											28,471,627
30	2017	34											28,471,627
31	2018	33											28,471,627
32	2019	32											28,471,627
33	2020	31											28,471,627
34	2021	30											28,471,627
35	2022	29											28,471,627
36	2023	28											28,471,627
37	2024	27											28,471,627
38	2025	26											28,471,627
39	2026	25											28,471,627
40	2027	24											28,471,627
41	2028	23											28,471,627
42	2029	22											28,471,627
43	2030	21											28,471,627
44	2031	20											28,471,627
45	2032	19											28,471,627
46	2033	18											28,471,627
47	2034	17											28,471,627
48	2035	16											28,471,627
49	2036	15											28,471,627
50	2037	14											28,471,627
51	2038	13											28,471,627
52	2039	12											28,471,627
53	2040	11											28,471,627
54	2041	10											28,471,627
55	2042	9											28,471,627
56	2043	8											28,471,627
57	2044	7											28,471,627
58	2045	6											28,471,627
59	2046	5											28,471,627
60	2047	4											28,471,627
61	2048	3											28,471,627
62	2049	2											28,471,627
63	2050	1											28,471,627
64	2051	0											28,471,627
												(28,471,627)	
										\$ -	\$ 36,938,978	\$ 8,467,351	\$ 1,456,879,281

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	36,938,978
Forecast Additions	-
Total Additions	36,938,978
Gross Salvage Value	2,847,163
Less Cost of Removal	1,423,581
Net Salvage Value	1,423,581
Total to be Recovered	35,515,397
Forecast Plant Balances	1,456,879,281
Whole Life Accrual Rate	2.44%
Cost of Removal Accrual Rate	0.10%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.34%
Depreciable Service Life, years	41.0

Account Balance 12/31/09	28,471,627
Forecast Additions	-
Gross Salvage Value	2,847,163
Less Cost of Removal	1,423,581
Net Salvage Value	1,423,581
Forecast Plant Balances	1,167,336,707

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 345 Accessory Electric Equipment

Initial Plant Balance

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							
1	1995	56		23,217	-	-			23,217	-	23,217	
2	1996	55		-	-	-			-	-	23,217	
3	1997	54		1,455,677	-	-			1,455,677	-	1,478,894	
4	1998	53		-	-	-			-	-	1,478,894	
5	1999	52		-	-	-			-	-	1,478,894	
6	2000	51		-	-	-			-	-	1,478,894	
7	2001	50		5,494,738	-	-			5,494,738	-	6,973,632	
8	2002	49		-	-	-			-	-	6,973,632	
9	2003	48		-	-	-			-	-	6,973,632	
10	2004	47		-	-	-			-	-	6,973,632	
11	2005	46		-	-	-			-	-	6,973,632	
12	2006	45		68,578	-	-			68,578	-	7,042,210	
13	2007	44		-	-	-			-	-	7,042,210	
14	2008	43		-	-	-			-	-	7,042,210	
15	2009	42		-	-	-	4,090,152		4,090,152	-	11,132,362	
16	Total		\$	1,478,894	\$	5,563,316	\$	-	\$	-	\$	73,089,162
17	Major Additions/Retirements											
18	2001			\$	5,494,738							
19	Routine Activity (excluding Westar advances) \$ 68,578 \$ -											
20	Historical Interim Activity 0.09% 0.00%											
21	Forecast Interim Activity 0.09% 0.00%											
22	2010	41						Major Additions**	10,445	-		11,142,807
23	2011	40							10,455	-		11,153,262
24	2012	39							10,465	-		11,163,727
25	2013	38							10,475	-		11,174,202
26	2014	37							10,485	-		11,184,686
27	2015	36							10,494	-		11,195,181
28	2016	35							10,504	-		11,205,685
29	2017	34							10,514	-		11,216,199
30	2018	33							10,524	-		11,226,723
31	2019	32							10,534	-		11,237,257
32	2020	31							10,544	-		11,247,800
33	2021	30							10,554	-		11,258,354
34	2022	29							10,563	-		11,268,917
35	2023	28							10,573	-		11,279,491
36	2024	27							10,583	-		11,290,074
37	2025	26							10,593	-		11,300,667
38	2026	25							10,603	-		11,311,271
39	2027	24							10,613	-		11,321,884
40	2028	23							10,623	-		11,332,507
41	2029	22							10,633	-		11,343,140
42	2030	21							10,643	-		11,353,783
43	2031	20							10,653	-		11,364,436
44	2032	19							10,663	-		11,375,099
45	2033	18							10,673	-		11,385,772
46	2034	17							10,683	-		11,396,455
47	2035	16							10,693	-		11,407,148
48	2036	15							10,703	-		11,417,851
49	2037	14							10,713	-		11,428,564
50	2038	13							10,723	-		11,439,287
51	2039	12							10,733	-		11,450,021
52	2040	11							10,743	-		11,460,764
53	2041	10							10,753	-		11,471,517
54	2042	9							10,763	-		11,482,281
55	2043	8							10,774	-		11,493,054
56	2044	7							10,784	-		11,503,838
57	2045	6							10,794	-		11,514,632
58	2046	5							10,804	-		11,525,436
59	2047	4							10,814	-		11,536,250
60	2048	3							10,824	-		11,547,074
61	2049	2							10,834	-		11,557,908
62	2050	1							10,845	-		11,568,753
63	2051	0								(11,568,753)		-
			\$	-	\$	11,568,753	\$	-	\$	-	\$	538,622,918

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	11,132,362
Forecast Additions	436,391
Total Additions	11,568,753
Gross Salvage Value	925,500
Less Cost of Removal	1,156,875
Net Salvage Value	(231,375)
Total to be Recovered	11,800,128
Forecast Plant Balances	538,622,918
Whole Life Accrual Rate	2.19%
Cost of Removal Accrual Rate	0.21%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.98%
Depreciable Service Life, years	45.6

Account Balance 12/31/09	11,132,362
Forecast Additions	436,391
Gross Salvage Value	925,500
Less Cost of Removal	1,156,875
Net Salvage Value	(231,375)
Forecast Plant Balances	465,533,756

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

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 346 Misc Power Equipment

Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books				Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Vintage Year	Advance Additions	Advance Retirements	Additions	Retirements			
			Beg	Balance								
1	1995	56	61,635	-	-	-	-	61,635	-	-	61,635	
2	1996	55	19,381	-	-	-	-	19,381	-	-	81,016	
3	1997	54	5,673	-	-	-	-	5,673	-	-	86,689	
4	1998	53	-	-	-	-	-	-	-	-	86,689	
5	1999	52	-	-	-	-	-	-	-	-	86,689	
6	2000	51	-	-	-	-	-	-	-	-	86,689	
7	2001	50	2,660,298	-	-	-	-	2,660,298	-	-	2,746,987	
8	2002	49	6,360	-	-	-	-	6,360	-	-	2,753,347	
9	2003	48	13,837	-	-	-	-	13,837	-	-	2,767,184	
10	2004	47	-	-	-	-	-	-	-	-	2,767,184	
11	2005	46	-	-	-	-	(9,375)	(9,375)	-	-	2,757,809	
12	2006	45	-	-	-	-	-	-	-	-	2,757,809	
13	2007	44	-	-	-	-	7,704	7,704	-	-	2,765,513	
14	2008	43	-	-	-	-	89,172	89,172	-	-	2,854,685	
15	2009	42	-	-	-	-	(35,587)	(35,587)	-	-	2,819,098	
16	Total		\$ 86,689	\$ 2,680,495	\$ -	\$ -	\$ 51,914	\$ -	\$ 2,819,098	\$ -	\$ 25,479,023	
17	Major Additions/Retirements											
18	2001			\$ 2,660,298								
19	Routine Activity (excluding Westar advances) \$ 20,197 \$ -											
20	Historical Interim Activity 0.08% 0.00%											
21	Forecast Interim Activity 0.08% 0.00%											
22	2010	41							2,235	-		2,821,333
23	2011	40							2,236	-		2,823,569
24	2012	39							2,238	-		2,825,807
25	2013	38							2,240	-		2,828,047
26	2014	37							2,242	-		2,830,289
27	2015	36							2,244	-		2,832,533
28	2016	35							2,245	-		2,834,778
29	2017	34							2,247	-		2,837,025
30	2018	33							2,249	-		2,839,274
31	2019	32							2,251	-		2,841,525
32	2020	31							2,252	-		2,843,777
33	2021	30							2,254	-		2,846,031
34	2022	29							2,256	-		2,848,287
35	2023	28							2,258	-		2,850,545
36	2024	27							2,260	-		2,852,805
37	2025	26							2,261	-		2,855,066
38	2026	25							2,263	-		2,857,329
39	2027	24							2,265	-		2,859,594
40	2028	23							2,267	-		2,861,861
41	2029	22							2,269	-		2,864,130
42	2030	21							2,270	-		2,866,400
43	2031	20							2,272	-		2,868,672
44	2032	19							2,274	-		2,870,946
45	2033	18							2,276	-		2,873,222
46	2034	17							2,278	-		2,875,500
47	2035	16							2,279	-		2,877,779
48	2036	15							2,281	-		2,880,060
49	2037	14							2,283	-		2,882,343
50	2038	13							2,285	-		2,884,628
51	2039	12							2,287	-		2,886,915
52	2040	11							2,288	-		2,889,203
53	2041	10							2,290	-		2,891,493
54	2042	9							2,292	-		2,893,785
55	2043	8							2,294	-		2,896,079
56	2044	7							2,296	-		2,898,375
57	2045	6							2,298	-		2,900,672
58	2046	5							2,299	-		2,902,972
59	2047	4							2,301	-		2,905,273
60	2048	3							2,303	-		2,907,576
61	2049	2							2,305	-		2,909,881
62	2050	1							2,307	-		2,912,187
63	2051	0								(2,912,187)		-
									\$ -	\$ 2,912,187	\$ -	\$ 143,006,590

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	2,819,098
Forecast Additions	93,089
Total Additions	2,912,187
Gross Salvage Value	232,975
Less Cost of Removal	291,219
Net Salvage Value	(58,244)
Total to be Recovered	2,970,431
Forecast Plant Balances	143,006,590

Whole Life Accrual Rate	2.08%
Cost of Removal Accrual Rate	0.20%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.87%

Depreciable Service Life, years 48.1

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/09	2,819,098
Forecast Additions	93,089
Gross Salvage Value	232,975
Less Cost of Removal	291,219
Net Salvage Value	(58,244)
Forecast Plant Balances	117,527,567

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

Account	Description	Direct Investment 2009\$	Depreciation Rate
341	Structures & Improvements	1,103,839	4.24%
342	Fuel Holders, Producers & Accessories	3,230,198	2.31%
343	Prime Movers	27,222,288	3.56%
344	Generators	7,178,571	2.62%
345	Accessory Electric Equipment	2,892,158	2.40%
346	Misc Power Equipment	1,046,080	3.86%
<b>Total</b>		42,673,134	<span style="border: 1px solid black; padding: 2px;">3.25%</span> whole life weighted average rate

**Remaining Life Depreciation Rate Calculation**

Per Books Balance 12/31/09	42,673,134
Forecast Interim Additions	9,631,130
Forecast Gross Salvage Value	4,918,456
Forecast Less Cost of Removal	2,984,923
Forecast Net Salvage Value	1,933,533
Forecast Total to be Recovered with COR	50,370,731
Forecast Total to be Recovered w/o COR	47,385,808
Accumulated Depreciation (2009 EOY)	(17,852,776)
Forecast Remaining Life Balance with COR	32,517,955
Forecast Remaining Life Balance w/o COR	29,533,032
Forecast Plant Balances	1,650,315,863
Remaining Life Rate with COR	1.97%
Remaining Life Rate w/o COR	1.79%
Reserve Variance with COR	21,187,059

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	2045
	Service Life, Yrs	50

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 341 Structures & Improvements Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Beg Balance	Transaction Year		Vintage Year Retirements	Advance Additions	Advance Retirements	Additions			Retirements
				Additions	Retirements							
1	1995	50	2,072,573	-	-	1,025,088	-	-	2,072,573	-	2,072,573	
2	1996	49	-	-	-	-	-	-	-	-	2,072,573	
3	1997	48	582,614	-	-	532,896	-	-	582,614	-	2,655,187	
4	1998	47	-	-	-	-	-	-	-	-	2,655,187	
5	1999	46	-	-	-	-	-	-	-	-	2,655,187	
6	2000	45	-	5,958	-	-	-	5,958	-	-	2,661,145	
7	2001	44	-	678	1,557,829	-	-	678	1,557,829	-	1,103,994	
8	2002	43	-	-	-	-	-	-	-	-	1,103,994	
9	2003	42	-	-	-	-	-	-	-	-	1,103,994	
10	2004	41	-	-	-	-	-	-	-	-	1,103,994	
11	2005	40	-	-	-	-	-	-	-	-	1,103,994	
12	2006	39	-	-	-	-	-	-	-	-	1,103,994	
13	2007	38	-	-	-	-	-	-	-	-	1,103,994	
14	2008	37	-	-	-	-	-	-	-	-	1,103,994	
15	2009	36	-	-	155	-	-	-	155	-	1,103,839	
16	Total		\$ 2,655,187	\$ 6,636	\$ 1,557,984	\$ 1,557,984	\$ -	\$ -	\$ 2,661,823	\$ 1,557,984	\$ -	\$ 24,707,643

17 Major Additions/Retirements  
18 2001 \$ 1,557,829

19 Routine Activity \$ 6,636 \$ 155  
20 Historical Interim Activity 0.03% 0.00%  
21 Forecast Interim Activity 0.00% 0.00%

Major Additions\*\*

22	2010	35	-	-	-	-	-	-	-	-	1,103,839
23	2011	34	-	-	-	-	-	-	-	-	1,103,839
24	2012	33	-	-	-	-	-	-	-	-	1,103,839
25	2013	32	-	-	-	-	-	-	-	-	1,103,839
26	2014	31	-	-	-	-	-	-	-	-	1,103,839
27	2015	30	-	-	-	-	-	-	-	-	1,103,839
28	2016	29	-	-	-	-	-	-	-	-	1,103,839
29	2017	28	-	-	-	-	-	-	-	-	1,103,839
30	2018	27	-	-	-	-	-	-	-	-	1,103,839
31	2019	26	-	-	-	-	-	-	-	-	1,103,839
32	2020	25	-	-	-	-	-	-	-	-	1,103,839
33	2021	24	-	-	-	-	-	-	-	-	1,103,839
34	2022	23	-	-	-	-	-	-	-	-	1,103,839
35	2023	22	-	-	-	-	-	-	-	-	1,103,839
36	2024	21	-	-	-	-	-	-	-	-	1,103,839
37	2025	20	-	-	-	-	-	-	-	-	1,103,839
38	2026	19	-	-	-	-	-	-	-	-	1,103,839
39	2027	18	-	-	-	-	-	-	-	-	1,103,839
40	2028	17	-	-	-	-	-	-	-	-	1,103,839
41	2029	16	-	-	-	-	-	-	-	-	1,103,839
42	2030	15	-	-	-	-	-	-	-	-	1,103,839
43	2031	14	-	-	-	-	-	-	-	-	1,103,839
44	2032	13	-	-	-	-	-	-	-	-	1,103,839
45	2033	12	-	-	-	-	-	-	-	-	1,103,839
46	2034	11	-	-	-	-	-	-	-	-	1,103,839
47	2035	10	-	-	-	-	-	-	-	-	1,103,839
48	2036	9	-	-	-	-	-	-	-	-	1,103,839
49	2037	8	-	-	-	-	-	-	-	-	1,103,839
50	2038	7	-	-	-	-	-	-	-	-	1,103,839
51	2039	6	-	-	-	-	-	-	-	-	1,103,839
52	2040	5	-	-	-	-	-	-	-	-	1,103,839
53	2041	4	-	-	-	-	-	-	-	-	1,103,839
54	2042	3	-	-	-	-	-	-	-	-	1,103,839
55	2043	2	-	-	-	-	-	-	-	-	1,103,839
56	2044	1	-	-	-	-	-	-	-	-	1,103,839
57	2045	0	-	-	-	-	-	-	-	-	1,103,839
										(1,103,839)	-
			\$ -	\$ 2,661,823	\$ 1,557,984				\$ -	\$ -	\$ 63,342,008

\* Through vintage year 1999 the balances are 1999 remaining plant balances.  
\*\* From 2009 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	63,342,008

Whole Life Accrual Rate	4.24%
Cost of Removal Accrual Rate	0.17%
Whole Life Accrual Rate (Excluding Cost of Removal)	4.06%
Depreciable Service Life, years	23.6

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/09	1,103,839
Forecast Additions	-
Gross Salvage Value	88,307
Less Cost of Removal	110,384
Net Salvage Value	(22,077)
Forecast Plant Balances	38,634,365



The Empire District Electric Company  
 Unit Property Depreciation Rate Analysis  
 Unit Property: Other Production, State Line Combustion Turbine  
 Historical and Forecast Plant Additions & Balances  
 Accou 343 Prime Movers

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*		
			Beg Balance	Transaction Year		Vintage Year Retirements	Advance Additions	Advance Retirements	Additions			Retirements	
				Additions	Retirements								
1	1995	50	28,558,733	-	-	4,814,872	-	-	-	-	28,558,733		
2	1996	49	-	-	-	-	-	-	-	-	28,558,733		
3	1997	48	10,153,242	-	-	8,552,366	-	-	-	-	38,711,975		
4	1998	47	-	-	-	-	-	-	-	-	38,711,975		
5	1999	46	-	1,699,597	-	1,699,597	-	-	-	-	40,411,572		
6	2000	45	-	3,484,498	-	3,484,498	-	-	-	-	43,896,070		
7	2001	44	-	4,342,181	17,779,191	4,080,654	-	-	17,779,191	-	30,459,060		
8	2002	43	-	-	-	-	-	-	-	-	30,459,060		
9	2003	42	-	-	-	-	-	-	-	-	30,459,060		
10	2004	41	-	658,543	-	-	-	-	658,543	-	31,117,603		
11	2005	40	-	867,296	-	-	-	-	867,296	-	31,984,899		
12	2006	39	-	20,217	2,687,951	20,217	-	-	2,687,951	-	29,317,165		
13	2007	38	-	12,000	136,081	-	-	-	136,081	-	29,193,084		
14	2008	37	-	-	1,899,982	-	-	-	1,899,982	-	27,293,102		
15	2009	36	-	-	148,999	-	78,185	-	148,999	-	27,222,288		
16	Total		\$ 38,711,975	\$ 11,084,332	\$ 22,652,204	\$ 22,652,204	\$ 78,185	\$ -	\$ 49,874,492	\$ 22,652,204	\$ -	\$ 486,354,379	
17	Major Additions/Retirements												
18	2000			\$ 3,484,498									
19	2001			\$ 4,342,181	\$ 17,779,191								
20	2006				\$ 2,687,951								
21	2008				\$ 1,899,982								
22	Routine Activity \$ 3,335,838 \$ 285,080												
23	Historical Interim Activity 0.69% 0.06%												
24	Forecast Interim Activity 0.69% 0.06%												
25	2010	35							295,000	15,957		27,501,331	
26	2011	34							350,000	16,120		27,835,211	
27	2012	33							375,000	16,316		28,193,896	
28	2013	32							450,000	16,526		28,627,370	
29	2014	31							400,000	16,780		29,010,589	
30	2015	30								17,005		29,192,564	
31	2016	29							198,980	17,111		29,375,681	
32	2017	28							200,228	17,219		29,559,946	
33	2018	27							201,484	17,327		29,745,367	
34	2019	26							202,748	17,435		29,931,950	
35	2020	25							204,019	17,545		30,119,705	
36	2021	24							205,299	17,655		30,308,637	
37	2022	23							206,587	17,766		30,498,754	
38	2023	22							207,883	17,877		30,690,064	
39	2024	21							209,187	17,989		30,882,573	
40	2025	20							210,499	18,102		31,076,291	
41	2026	19							211,819	18,216		31,271,223	
42	2027	18							213,148	18,330		31,467,378	
43	2028	17							214,485	18,445		31,664,764	
44	2029	16							215,830	18,561		31,863,388	
45	2030	15							217,184	18,677		32,063,257	
46	2031	14							218,547	18,794		32,264,381	
47	2032	13							219,917	18,912		32,466,766	
48	2033	12							221,297	19,031		32,670,420	
49	2034	11							222,685	19,150		32,875,352	
50	2035	10							224,082	19,270		33,081,570	
51	2036	9							225,488	19,391		33,289,081	
52	2037	8							226,902	19,513		33,497,893	
53	2038	7							228,325	19,635		33,708,016	
54	2039	6							229,757	19,758		33,919,456	
55	2040	5							231,199	19,882		34,132,223	
56	2041	4							232,649	20,007		34,346,324	
57	2042	3							234,108	20,132		34,561,769	
58	2043	2							235,577	20,259		34,778,564	
59	2044	1							237,054	20,386		34,996,720	
60	2045	0							238,541		(34,996,720)	-	
									\$ 1,870,000	\$ 56,420,000	\$ 23,293,280		\$ 1,587,822,852

\* Through vintage year 1999 the balances are 1999 remaining plant balances.  
 \*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	49,874,492
Forecast Additions	8,415,508
Total Additions	58,290,000
Gross Salvage Value	3,499,672
Less Cost of Removal	1,749,836
Net Salvage Value	1,749,836
Total to be Recovered	56,540,164
Forecast Plant Balances	1,587,822,852
Whole Life Accrual Rate	3.56%
Cost of Removal Accrual Rate	0.11%
Whole Life Accrual Rate (Excluding Cost of Removal)	3.45%
Depreciable Service Life, years	28.1

Account Balance 12/31/09	27,222,288
Forecast Additions	8,415,508
Gross Salvage Value	3,499,672
Less Cost of Removal	1,749,836
Net Salvage Value	1,749,836
Forecast Plant Balances	1,101,468,473

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	2045
	Service Life, Yrs	50

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 344 Generators

Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Beg Balance	Transaction Year		Vintage Year Retirements	Advance Additions	Advance Retirements	Additions			Retirements
				Additions	Retirements							
1	1995	50	6,716,153	-	-	-	-	6,716,153	-	-	6,716,153	
2	1996	49	-	-	-	-	-	-	-	-	6,716,153	
3	1997	48	3,145,772	-	2,812,721	-	-	3,145,772	-	-	9,861,925	
4	1998	47	-	-	-	-	-	-	-	-	9,861,925	
5	1999	46	-	-	-	-	-	-	-	-	9,861,925	
6	2000	45	-	-	-	-	-	-	-	-	9,861,925	
7	2001	44	-	2,812,721	-	-	-	-	2,812,721	-	7,049,204	
8	2002	43	-	-	-	-	-	-	-	-	7,049,204	
9	2003	42	-	-	-	-	-	-	-	-	7,049,204	
10	2004	41	-	-	-	-	-	-	-	-	7,049,204	
11	2005	40	-	-	-	-	-	-	-	-	7,049,204	
12	2006	39	-	-	-	-	-	-	-	-	7,049,204	
13	2007	38	-	-	-	-	-	-	-	-	7,049,204	
14	2008	37	-	-	-	-	-	-	-	-	7,049,204	
15	2009	36	-	-	-	129,367	-	129,367	-	-	7,178,571	
16	Total		\$ 9,861,925	\$ -	\$ 2,812,721	\$ 2,812,721	\$ 129,367	\$ -	\$ 9,991,292	\$ 2,812,721	\$ -	\$ 116,452,209

17 Major Additions/Retirements  
18 2001

\$ 2,812,721

19 Routine Activity  
20 Historical Interim Activity  
21 Forecast Interim Activity

\$ - \$ -  
0.00% 0.00%  
0.00% 0.00%

Major Additions\*\*

22	2010	35	-	-	-	-	-	-	-	-	7,178,571
23	2011	34	-	-	-	-	-	-	-	-	7,178,571
24	2012	33	-	-	-	-	-	-	-	-	7,178,571
25	2013	32	-	-	-	-	-	-	-	-	7,178,571
26	2014	31	-	-	-	-	-	-	-	-	7,178,571
27	2015	30	-	-	-	-	-	-	-	-	7,178,571
28	2016	29	-	-	-	-	-	-	-	-	7,178,571
29	2017	28	-	-	-	-	-	-	-	-	7,178,571
30	2018	27	-	-	-	-	-	-	-	-	7,178,571
31	2019	26	-	-	-	-	-	-	-	-	7,178,571
32	2020	25	-	-	-	-	-	-	-	-	7,178,571
33	2021	24	-	-	-	-	-	-	-	-	7,178,571
34	2022	23	-	-	-	-	-	-	-	-	7,178,571
35	2023	22	-	-	-	-	-	-	-	-	7,178,571
36	2024	21	-	-	-	-	-	-	-	-	7,178,571
37	2025	20	-	-	-	-	-	-	-	-	7,178,571
38	2026	19	-	-	-	-	-	-	-	-	7,178,571
39	2027	18	-	-	-	-	-	-	-	-	7,178,571
40	2028	17	-	-	-	-	-	-	-	-	7,178,571
41	2029	16	-	-	-	-	-	-	-	-	7,178,571
42	2030	15	-	-	-	-	-	-	-	-	7,178,571
43	2031	14	-	-	-	-	-	-	-	-	7,178,571
44	2032	13	-	-	-	-	-	-	-	-	7,178,571
45	2033	12	-	-	-	-	-	-	-	-	7,178,571
46	2034	11	-	-	-	-	-	-	-	-	7,178,571
47	2035	10	-	-	-	-	-	-	-	-	7,178,571
48	2036	9	-	-	-	-	-	-	-	-	7,178,571
49	2037	8	-	-	-	-	-	-	-	-	7,178,571
50	2038	7	-	-	-	-	-	-	-	-	7,178,571
51	2039	6	-	-	-	-	-	-	-	-	7,178,571
52	2040	5	-	-	-	-	-	-	-	-	7,178,571
53	2041	4	-	-	-	-	-	-	-	-	7,178,571
54	2042	3	-	-	-	-	-	-	-	-	7,178,571
55	2043	2	-	-	-	-	-	-	-	-	7,178,571
56	2044	1	-	-	-	-	-	-	-	-	7,178,571
57	2045	0	-	-	-	-	-	-	-	-	7,178,571
										(7,178,571)	-
			\$ -	\$ 9,991,292	\$ 2,812,721			\$ -	\$ 9,991,292	\$ 2,812,721	\$ 367,702,194

\* Through vintage year 1999 the balances are 1999 remaining plant balances.  
\*\* From 2009 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	367,702,194
Whole Life Accrual Rate	2.62%
Cost of Removal Accrual Rate	0.10%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.52%
Depreciable Service Life, years	38.2

Account Balance 12/31/09	7,178,571
Forecast Additions	-
Gross Salvage Value	717,857
Less Cost of Removal	358,929
Net Salvage Value	358,929
Forecast Plant Balances	251,249,985







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

Account	Description	Direct Investment 2009\$	Depreciation Rate
341	Structures & Improvements	1,948,256	2.19%
342	Fuel Holders, Producers & Accessories	1,679,636	3.03%
343	Prime Movers	27,551,769	2.33%
344	Generators	4,504,459	2.10%
345	Accessory Electric Equipment	2,091,864	1.20%
346	Misc Power Equipment	1,458,410	2.75%
<b>Total</b>		39,234,394	<span style="border: 1px solid black; padding: 2px;">2.28%</span> whole life weighted average rate

**Remaining Life Depreciation Rate Calculation**

Per Books Balance 12/31/09	39,234,394
Forecast Interim Additions	2,290,136
Forecast Gross Salvage Value	3,311,566
Forecast Less Cost of Removal	2,168,476
Forecast Net Salvage Value	1,143,090
Forecast Total to be Recovered with COR	40,381,440
Forecast Total to be Recovered w/o COR	38,212,964
Accumulated Depreciation (2009 EOY)	(29,086,085)
Forecast Remaining Life Balance with COR	11,295,355
Forecast Remaining Life Balance w/o COR	9,126,879
Forecast Plant Balances	883,818,086
Remaining Life Rate with COR	1.28%
Remaining Life Rate w/o COR	1.03%
Reserve Variance with COR	8,889,380

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 Turb	Install Date	1978
	Retirement Date	2031
	Service Life, Yrs	53

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 341 Structures & Improvements

Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books				Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Vintage Year	Advance Additions	Advance Retirements	Additions	Retirements			
			Beg	Balance								
1	1977	54		763	-	-			763	-	763	
2	1978	53	1,453,319	-	-	1,657			1,453,319	-	1,454,082	
3	1979	52	-	-	-	-			-	-	1,454,082	
4	1980	51	-	-	-	-			-	-	1,454,082	
5	1981	50	227,761	-	-	-			227,761	-	1,681,843	
6	1982	49	1,369	-	-	-			1,369	-	1,683,212	
7	1983	48	-	-	-	-			-	-	1,683,212	
8	1984	47	-	-	-	-			-	-	1,683,212	
9	1985	46	-	-	-	-			-	-	1,683,212	
10	1986	45	-	-	-	-			-	-	1,683,212	
11	1987	44	-	-	-	-			-	-	1,683,212	
12	1988	43	-	-	-	-			-	-	1,683,212	
13	1989	42	-	-	-	-			-	-	1,683,212	
14	1990	41	-	-	-	-			-	-	1,683,212	
15	1991	40	-	-	-	-			-	-	1,683,212	
16	1992	39	-	-	-	-			-	-	1,683,212	
17	1993	38	-	-	-	-			-	-	1,683,212	
18	1994	37	1,786	-	-	-			1,786	-	1,684,998	
19	1995	36	-	-	-	-			-	-	1,684,998	
20	1996	35	-	-	-	-			-	-	1,684,998	
21	1997	34	11,045	-	-	-			11,045	-	1,696,043	
22	1998	33	39,665	-	-	-			39,665	-	1,735,708	
23	1999	32	-	113,958	-	-			-	113,958	1,849,666	
24	2000	31	-	35,111	-	-			-	35,111	1,884,777	
25	2001	30	-	-	-	-			-	-	1,884,777	
26	2002	29	-	-	-	-			-	-	1,884,777	
27	2003	28	-	-	1,657	-			-	1,657	1,883,120	
28	2004	27	-	50,612	-	-			50,612	-	1,933,732	
29	2005	26	-	-	-	-			-	-	1,933,732	
30	2006	25	-	-	-	-			-	-	1,933,732	
31	2007	24	-	8,819	-	-			8,819	-	1,942,551	
31	2008	23	-	5,705	-	-			5,705	-	1,948,256	
32	2009	22	-	-	-	-			-	-	1,948,256	
33	Total		\$ 1,735,708	\$ 214,205	\$ 1,657	\$ 1,657	\$ -	\$ -	\$ 1,949,913	\$ 1,657	\$ -	\$ 55,757,517

34 Major Additions/Retirements

35	Routine Activity	\$ 214,205	\$ 1,657
36	Historical Interim Activity	0.38%	0.00%
37	Forecast Interim Activity	0.38%	0.00%

Major Additions\*\*

38	2010	21		7,485	58	1,955,683
39	2011	20		7,513	58	1,963,138
40	2012	19		7,542	58	1,970,621
41	2013	18		7,571	59	1,978,133
42	2014	17		7,599	59	1,985,674
43	2015	16		7,628	59	1,993,243
44	2016	15		7,657	59	2,000,842
45	2017	14		7,687	59	2,008,469
46	2018	13		7,716	60	2,016,125
47	2019	12		7,745	60	2,023,811
48	2020	11		7,775	60	2,031,525
49	2021	10		7,805	60	2,039,270
50	2022	9		7,834	61	2,047,043
51	2023	8		7,864	61	2,054,847
52	2024	7		7,894	61	2,062,680
53	2025	6		7,924	61	2,070,543
54	2026	5		7,954	62	2,078,436
55	2027	4		7,985	62	2,086,359
56	2028	3		8,015	62	2,094,312
57	2029	2		8,046	62	2,102,295
58	2030	1		8,076	62	2,110,309
59	2031	0				-
						(2,110,309)
						\$ 2,113,230
						\$ 2,920
						\$ 98,430,875

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	1,949,913
Forecast Additions	163,317
Total Additions	2,113,230
Gross Salvage Value	168,825
Less Cost of Removal	211,031
Net Salvage Value	(42,206)
Total to be Recovered	2,155,436

Forecast Plant Balances 98,430,875

Whole Life Accrual Rate	2.19%
Cost of Removal Accrual Rate	0.21%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.98%
Depreciable Service Life, years	45.7

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/09	1,948,256
Forecast Additions	163,317
Gross Salvage Value	168,825
Less Cost of Removal	211,031
Net Salvage Value	(42,206)
Forecast Plant Balances	42,673,358

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 Turb	Install Date	1978
	Retirement Date	2031
	Service Life, Yrs	53

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 342 Fuel Holders, Producers & Accessories Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year		Vintage Year	Advance Additions	Advance Retirements	Additions	Retirements		
			Beg Balance	Additions							
1	1977	54	-	-	-	-	-	-	-	-	
2	1978	53	877,616	-	-	-	-	877,616	-	877,616	
3	1979	52	-	-	-	-	-	-	-	877,616	
4	1980	51	-	-	-	-	-	-	-	877,616	
5	1981	50	98,049	-	-	-	-	98,049	-	975,665	
6	1982	49	1,310	-	-	-	-	1,310	-	976,975	
7	1983	48	489	-	-	-	-	489	-	977,464	
8	1984	47	-	-	-	-	-	-	-	977,464	
9	1985	46	-	-	-	-	-	-	-	977,464	
10	1986	45	-	-	-	-	-	-	-	977,464	
11	1987	44	4,948	-	-	-	-	4,948	-	982,412	
12	1988	43	-	-	-	-	-	-	-	982,412	
13	1989	42	-	-	-	-	-	-	-	982,412	
14	1990	41	-	-	-	-	-	-	-	982,412	
15	1991	40	-	-	-	-	-	-	-	982,412	
16	1992	39	-	-	-	-	-	-	-	982,412	
17	1993	38	-	-	-	-	-	-	-	982,412	
18	1994	37	-	-	-	-	-	-	-	982,412	
19	1995	36	183,052	-	-	-	-	183,052	-	1,165,464	
20	1996	35	-	-	-	-	-	-	-	1,165,464	
21	1997	34	-	-	-	-	-	-	-	1,165,464	
22	1998	33	-	-	-	-	-	-	-	1,165,464	
23	1999	32	-	-	-	-	-	-	-	1,165,464	
24	2000	31	-	42,527	-	-	-	42,527	-	1,207,991	
25	2001	30	-	-	-	-	-	-	-	1,207,991	
26	2002	29	-	-	-	-	-	-	-	1,207,991	
27	2003	28	-	1,363	-	-	-	1,363	-	1,209,354	
28	2004	27	-	-	-	-	-	-	-	1,209,354	
29	2005	26	-	78,675	-	-	-	78,675	-	1,288,029	
30	2006	25	-	36,643	-	-	-	36,643	-	1,324,672	
31	2007	24	-	-	-	-	-	-	-	1,324,672	
31	2008	23	-	-	-	-	-	-	-	1,324,672	
32	2009	22	-	-	-	-	354,964	354,964	-	1,679,636	
33	Total		\$ 1,165,464	\$ 159,208	\$ -	\$ -	\$ 354,964	\$ -	\$ 1,679,636	\$ -	\$ 35,166,322

34 Major Additions/Retirements

35 Routine Activity	\$ 514,172	\$ -
36 Historical Interim Activity	1.46%	0.00%
37 Forecast Interim Activity	1.46%	0.00%

Major Additions\*\*

38	2010	21	-	-	24,558	-	-	24,558	-	1,704,194		
39	2011	20	-	-	24,917	-	-	24,917	-	1,729,111		
40	2012	19	-	-	25,282	-	-	25,282	-	1,754,393		
41	2013	18	-	-	25,651	-	-	25,651	-	1,780,044		
42	2014	17	-	-	26,026	-	-	26,026	-	1,806,071		
43	2015	16	-	-	26,407	-	-	26,407	-	1,832,477		
44	2016	15	-	-	26,793	-	-	26,793	-	1,859,270		
45	2017	14	-	-	27,185	-	-	27,185	-	1,886,455		
46	2018	13	-	-	27,582	-	-	27,582	-	1,914,037		
47	2019	12	-	-	27,985	-	-	27,985	-	1,942,023		
48	2020	11	-	-	28,395	-	-	28,395	-	1,970,417		
49	2021	10	-	-	28,810	-	-	28,810	-	1,999,227		
50	2022	9	-	-	29,231	-	-	29,231	-	2,028,458		
51	2023	8	-	-	29,658	-	-	29,658	-	2,058,116		
52	2024	7	-	-	30,092	-	-	30,092	-	2,088,208		
53	2025	6	-	-	30,532	-	-	30,532	-	2,118,740		
54	2026	5	-	-	30,978	-	-	30,978	-	2,149,719		
55	2027	4	-	-	31,431	-	-	31,431	-	2,181,150		
56	2028	3	-	-	31,891	-	-	31,891	-	2,213,041		
57	2029	2	-	-	32,357	-	-	32,357	-	2,245,398		
58	2030	1	-	-	32,830	-	-	32,830	-	2,278,229		
59	2031	0	-	-	-	-	-	-	(2,278,229)	-		
										\$ 2,278,229	\$ -	\$ 76,705,102

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	1,679,636
Forecast Additions	598,593
Total Additions	2,278,229
Gross Salvage Value	182,258
Less Cost of Removal	227,823
Net Salvage Value	(45,565)
Total to be Recovered	2,323,793

Forecast Plant Balances 76,705,102

Whole Life Accrual Rate	3.03%
Cost of Removal Accrual Rate	0.30%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.73%
Depreciable Service Life, years	33.0

Account Balance 12/31/09	1,679,636
Forecast Additions	598,593
Gross Salvage Value	182,258
Less Cost of Removal	227,823
Net Salvage Value	(45,565)
Forecast Plant Balances	41,538,780

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 Turb	Install Date	1978
	Retirement Date	2031
	Service Life, Yrs	53

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 343 Prime Movers

Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year		Vintage Year	Advance Additions	Advance Retirements	Additions	Retirements			
			Beg Balance	Additions								Retirements
1	1977	54	-	-	-	-	-	-	-	-		
2	1978	53	7,750,964	-	182,824	-	-	7,750,964	-	7,750,964		
3	1979	52	-	-	-	-	-	-	-	7,750,964		
4	1980	51	-	-	-	-	-	-	-	7,750,964		
5	1981	50	8,758,466	-	550,419	-	-	8,758,466	-	16,509,430		
6	1982	49	-	-	-	-	-	-	-	16,509,430		
7	1983	48	-	-	-	-	-	-	-	16,509,430		
8	1984	47	-	-	-	-	-	-	-	16,509,430		
9	1985	46	-	-	-	-	-	-	-	16,509,430		
10	1986	45	7,094	-	-	-	-	7,094	-	16,516,524		
11	1987	44	-	-	-	-	-	-	-	16,516,524		
12	1988	43	2,027	-	-	-	-	2,027	-	16,518,551		
13	1989	42	-	-	-	-	-	-	-	16,518,551		
14	1990	41	9,866	-	-	-	-	9,866	-	16,528,417		
15	1991	40	2,422	-	-	-	-	2,422	-	16,530,839		
16	1992	39	-	-	-	-	-	-	-	16,530,839		
17	1993	38	-	-	-	-	-	-	-	16,530,839		
18	1994	37	-	-	-	-	-	-	-	16,530,839		
19	1995	36	892,976	-	-	-	-	892,976	-	17,423,815		
20	1996	35	3,257,394	-	752,122	-	-	3,257,394	-	20,681,209		
21	1997	34	716,643	-	644,122	-	-	716,643	-	21,397,852		
22	1998	33	17,178	-	-	-	-	17,178	-	21,415,030		
23	1999	32	-	4,787,367	52,189	-	-	4,787,367	52,189	26,150,208		
24	2000	31	-	-	138,000	-	-	-	138,000	26,012,208		
25	2001	30	-	-	-	-	-	-	-	26,012,208		
26	2002	29	-	13,736	-	-	-	13,736	-	26,025,944		
27	2003	28	-	-	387,855	-	-	-	387,855	25,638,089		
28	2004	27	-	787,282	-	-	-	787,282	-	26,425,371		
29	2005	26	-	-	166,824	-	-	-	166,824	26,258,547		
30	2006	25	-	-	740,497	-	-	-	740,497	25,518,050		
31	2007	24	-	1,232,771	629,194	-	-	1,232,771	629,194	26,121,627		
31	2008	23	-	-	14,928	-	-	-	14,928	26,106,699		
32	2009	22	-	25,188	-	-	1,419,882	-	1,445,070	27,551,769		
33	Total		\$ 21,415,030	\$ 6,846,344	\$ 2,129,487	\$ 2,129,487	\$ 1,419,882	\$ -	\$ 29,681,256	\$ 2,129,487	\$ -	\$ 623,260,591
34	Major Additions/Retirements											
35	1999			\$ 4,787,367								
36	2006				\$ 740,497							
37	2007			\$ 1,232,771	\$ 629,194							
38	2009			\$ 1,419,882								
39	Routine Activity			\$ 826,206	\$ 759,796							
40	Historical Interim Activity			0.13%	0.12%							
41	Forecast Interim Activity			0.13%	0.12%							
42	2010	21					Major Additions**					
43	2011	20					2,107,500		33,587			29,625,682
44	2012	19					357,500		36,116			29,947,066
45	2013	18					495,000		36,507			30,405,558
46	2014	17					407,500		37,066			30,775,992
47	2015	16					370,000		37,518			31,108,474
48	2016	15						41,238	37,923			31,111,789
49	2017	14						41,242	37,927			31,115,104
50	2018	13						41,247	37,931			31,118,419
51	2019	12						41,251	37,935			31,121,735
52	2020	11						41,256	37,939			31,125,051
53	2021	10						41,260	37,944			31,128,367
54	2022	9						41,264	37,948			31,131,684
55	2023	8						41,269	37,952			31,135,001
56	2024	7						41,273	37,956			31,138,319
57	2025	6						41,278	37,960			31,141,637
58	2026	5						41,282	37,964			31,144,955
59	2027	4						41,286	37,968			31,148,274
60	2028	3						41,291	37,972			31,151,593
61	2029	2						41,295	37,976	(7,750,964)		23,403,948
62	2030	1						31,025	28,531			23,406,442
63	2031	0						31,028	28,534			23,408,936
										(23,408,936)		-
									\$ 30,321,040	\$ 2,898,641		\$ 1,250,054,616

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	29,681,256
Forecast Additions	639,784
Total Additions	30,321,040
Gross Salvage Value	2,340,894
Less Cost of Removal	1,170,447
Net Salvage Value	1,170,447
Total to be Recovered	29,150,594
Forecast Plant Balances	1,250,054,616
Whole Life Accrual Rate	2.33%
Cost of Removal Accrual Rate	0.09%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.24%
Depreciable Service Life, years	42.9

Account Balance 12/31/09	27,551,769
Forecast Additions	639,784
Gross Salvage Value	2,340,894
Less Cost of Removal	1,170,447
Net Salvage Value	1,170,447
Forecast Plant Balances	626,794,025

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 Turb	Install Date	1978
	Retirement Date	2031
	Service Life, Yrs	53

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 344 Generators

Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Beg Balance	Transaction Year		Vintage Year Retirements	Advance Additions	Advance Retirements	Additions			Retirements
				Additions	Retirements							
1	1977	54	-	-	-	-	-	-	-	-		
2	1978	53	1,884,020	-	-	12,000	-	1,884,020	-	1,884,020		
3	1979	52	-	-	-	-	-	-	-	1,884,020		
4	1980	51	-	-	-	-	-	-	-	1,884,020		
5	1981	50	2,267,290	-	-	-	-	2,267,290	-	4,151,310		
6	1982	49	1,766	-	-	-	-	1,766	-	4,153,076		
7	1983	48	-	-	-	-	-	-	-	4,153,076		
8	1984	47	-	-	-	-	-	-	-	4,153,076		
9	1985	46	-	-	-	-	-	-	-	4,153,076		
10	1986	45	1,225	-	-	-	-	1,225	-	4,154,301		
11	1987	44	-	-	-	-	-	-	-	4,154,301		
12	1988	43	-	-	-	-	-	-	-	4,154,301		
13	1989	42	-	-	-	-	-	-	-	4,154,301		
14	1990	41	6,082	-	-	-	-	6,082	-	4,160,383		
15	1991	40	-	-	-	-	-	-	-	4,160,383		
16	1992	39	-	-	-	-	-	-	-	4,160,383		
17	1993	38	-	-	-	-	-	-	-	4,160,383		
18	1994	37	-	-	-	-	-	-	-	4,160,383		
19	1995	36	-	-	-	-	-	-	-	4,160,383		
20	1996	35	-	-	-	-	-	-	-	4,160,383		
21	1997	34	-	-	-	-	-	-	-	4,160,383		
22	1998	33	-	-	-	-	-	-	-	4,160,383		
23	1999	32	-	-	-	-	-	-	-	4,160,383		
24	2000	31	-	-	-	-	-	-	-	4,160,383		
25	2001	30	-	-	-	-	-	-	-	4,160,383		
26	2002	29	-	-	-	-	-	-	-	4,160,383		
27	2003	28	-	-	-	-	-	-	-	4,160,383		
28	2004	27	356,076	-	-	-	-	356,076	-	4,516,459		
29	2005	26	-	-	-	-	-	-	-	4,516,459		
30	2006	25	-	-	-	-	-	-	-	4,516,459		
31	2007	24	-	-	-	-	-	-	-	4,516,459		
31	2008	23	-	-	12,000	-	-	-	12,000	4,504,459		
32	2009	22	-	-	-	-	-	-	-	4,504,459		
33	Total		\$ 4,160,383	\$ 356,076	\$ 12,000	\$ 12,000	\$ -	\$ -	\$ 4,516,459	\$ 12,000	\$ -	\$ 128,352,994

34 Major Additions/Retirements

35	Routine Activity	\$ 356,076	\$ 12,000
36	Historical Interim Activity	0.28%	0.01%
37	Forecast Interim Activity	0.28%	0.01%

Major Additions\*\*

38	2010	21			12,496	421	4,516,534		
39	2011	20			12,530	422	4,528,642		
40	2012	19			12,563	423	4,540,782		
41	2013	18			12,597	425	4,552,954		
42	2014	17			12,631	426	4,565,159		
43	2015	16			12,665	427	4,577,397		
44	2016	15			12,699	428	4,589,668		
45	2017	14			12,733	429	4,601,971		
46	2018	13			12,767	430	4,614,308		
47	2019	12			12,801	431	4,626,677		
48	2020	11			12,835	433	4,639,080		
49	2021	10			12,870	434	4,651,516		
50	2022	9			12,904	435	4,663,985		
51	2023	8			12,939	436	4,676,488		
52	2024	7			12,973	437	4,689,024		
53	2025	6			13,008	438	4,701,594		
54	2026	5			13,043	440	4,714,198		
55	2027	4			13,078	441	4,726,835		
56	2028	3	UNIT 1 RETIRES IN 2028		13,113	442	2,855,486		
57	2029	2			7,922	267	2,863,141		
58	2030	1			7,943	268	2,870,816		
59	2031	0					(2,870,816)		
							\$ 4,775,568	\$ 20,732	\$ 220,119,248

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	4,516,459
Forecast Additions	259,109
Total Additions	4,775,568
Gross Salvage Value	287,082
Less Cost of Removal	143,541
Net Salvage Value	143,541
Total to be Recovered	4,632,028

Forecast Plant Balances 220,119,248

Whole Life Accrual Rate	2.10%
Cost of Removal Accrual Rate	0.07%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.04%
Depreciable Service Life, years	47.5

Account Balance 12/31/09	4,504,459
Forecast Additions	259,109
Gross Salvage Value	287,082
Less Cost of Removal	143,541
Net Salvage Value	143,541
Forecast Plant Balances	91,766,254

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 Turb	Install Date	1978
	Retirement Date	2031
	Service Life, Yrs	53

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 345 Accessory Electric Equipment Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books			Vintage Year	Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Beg Balance	Transaction Year			Retirements	Advance Additions	Advance Retirements	Additions			Retirements
				Additions	Retirements								
1	1977	54	-	-	-	-	-	-	-	-	-		
2	1978	53	258,607	-	-	-	-	258,607	-	-	258,607		
3	1979	52	-	-	-	-	-	-	-	-	258,607		
4	1980	51	-	-	-	-	-	-	-	-	258,607		
5	1981	50	63,365	-	-	-	-	-	63,365	-	321,972		
6	1982	49	-	-	-	-	-	-	-	-	321,972		
7	1983	48	-	-	-	-	-	-	-	-	321,972		
8	1984	47	-	-	-	-	-	-	-	-	321,972		
9	1985	46	-	-	-	-	-	-	-	-	321,972		
10	1986	45	-	-	-	-	-	-	-	-	321,972		
11	1987	44	-	-	-	-	-	-	-	-	321,972		
12	1988	43	-	-	-	-	-	-	-	-	321,972		
13	1989	42	-	-	-	-	-	-	-	-	321,972		
14	1990	41	-	-	-	-	-	-	-	-	321,972		
15	1991	40	-	-	-	-	-	-	-	-	321,972		
16	1992	39	-	-	-	-	-	-	-	-	321,972		
17	1993	38	-	-	-	-	-	-	-	-	321,972		
18	1994	37	-	-	-	-	-	-	-	-	321,972		
19	1995	36	-	-	-	-	-	-	-	-	321,972		
20	1996	35	-	-	-	-	-	-	-	-	321,972		
21	1997	34	-	-	-	-	-	-	-	-	321,972		
22	1998	33	-	-	-	-	-	-	-	-	321,972		
23	1999	32	-	-	-	-	-	-	-	-	321,972		
24	2000	31	-	-	-	-	-	-	-	-	321,972		
25	2001	30	-	-	-	-	-	-	-	-	321,972		
26	2002	29	-	17,443	-	-	-	-	17,443	-	339,415		
27	2003	28	-	-	-	-	-	-	-	-	339,415		
28	2004	27	-	-	-	-	-	-	-	-	339,415		
29	2005	26	-	43,425	-	-	-	-	43,425	-	382,840		
30	2006	25	-	16,545	-	-	-	-	16,545	-	399,385		
31	2007	24	-	-	-	-	-	-	-	-	399,385		
31	2008	23	-	5,342	-	-	-	-	5,342	1,687,137	2,091,864		
32	2009	22	-	-	-	-	-	-	-	-	2,091,864		
33	Total		\$ 321,972	\$ 82,755	\$ -	\$ -	\$ -	\$ -	\$ 404,727	\$ -	\$ 1,687,137	\$ 13,920,816	

34 Major Additions/Retirements

35	Routine Activity	\$ 82,755	\$ -
36	Historical Interim Activity	0.59%	0.00%
37	Forecast Interim Activity	0.59%	0.00%

Major Additions\*\*

38	2010	21						12,435	-		2,104,299
39	2011	20						12,509	-		2,116,809
40	2012	19						12,584	-		2,129,393
41	2013	18						12,659	-		2,142,051
42	2014	17						12,734	-		2,154,785
43	2015	16						12,810	-		2,167,595
44	2016	15						12,886	-		2,180,480
45	2017	14						12,962	-		2,193,443
46	2018	13						13,039	-		2,206,482
47	2019	12						13,117	-		2,219,599
48	2020	11						13,195	-		2,232,794
49	2021	10						13,273	-		2,246,067
50	2022	9						13,352	-		2,259,419
51	2023	8						13,432	-		2,272,851
52	2024	7						13,511	-		2,286,362
53	2025	6						13,592	-		2,299,954
54	2026	5						13,673	-		2,313,626
55	2027	4						13,754	-		2,327,380
56	2028	3						13,836	-		2,341,216
57	2029	2						13,918	-		2,355,134
58	2030	1						14,001	-		2,369,134
59	2031	0								(2,369,134)	-
\$ 681,997 \$ - \$ (2,369,134) \$ 60,839,688											

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	404,727
Forecast Additions	277,270
Total Additions	681,997
Gross Salvage Value	189,531
Less Cost of Removal	236,913
Net Salvage Value	(47,383)
Total to be Recovered	729,380
Forecast Plant Balances	60,839,688
Whole Life Accrual Rate	1.20%
Cost of Removal Accrual Rate	0.39%
Whole Life Accrual Rate (Excluding Cost of Removal)	0.81%
Depreciable Service Life, years	83.4

Account Balance 12/31/09	2,091,864
Forecast Additions	277,270
Gross Salvage Value	189,531
Less Cost of Removal	236,913
Net Salvage Value	(47,383)
Forecast Plant Balances	46,918,872



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 Turb	Install Date	1978
	Retirement Date	2031
	Service Life, Yrs	53

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 346 Misc Power Equipment

Initial Plant Balance

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								
1	1977	54	-	-	-	-	-	-	-	-		
2	1978	53	47,757	-	-	-	-	47,757	-	47,757		
3	1979	52	-	-	-	-	-	-	-	47,757		
4	1980	51	356	-	-	-	-	356	-	48,113		
5	1981	50	990,166	-	2,483	-	-	990,166	-	1,038,279		
6	1982	49	8,388	-	-	-	-	8,388	-	1,046,667		
7	1983	48	16,388	-	-	-	-	16,388	-	1,063,055		
8	1984	47	-	-	-	-	-	-	-	1,063,055		
9	1985	46	4,078	-	-	-	-	4,078	-	1,067,133		
10	1986	45	2,024	-	-	-	-	2,024	-	1,069,157		
11	1987	44	6,465	-	-	-	-	6,465	-	1,075,622		
12	1988	43	7,375	-	-	-	-	7,375	-	1,082,997		
13	1989	42	18,665	-	14,674	-	-	18,665	-	1,101,662		
14	1990	41	-	-	-	-	-	-	-	1,101,662		
15	1991	40	1,587	-	-	-	-	1,587	-	1,103,249		
16	1992	39	-	-	-	-	-	-	-	1,103,249		
17	1993	38	-	-	-	-	-	-	-	1,103,249		
18	1994	37	1,899	-	-	-	-	1,899	-	1,105,148		
19	1995	36	-	-	-	-	-	-	-	1,105,148		
20	1996	35	10,526	-	-	-	-	10,526	-	1,115,674		
21	1997	34	3,913	-	-	-	-	3,913	-	1,119,587		
22	1998	33	9,903	-	-	-	-	9,903	-	1,129,490		
23	1999	32	-	8,711	-	-	-	8,711	-	1,138,201		
24	2000	31	35,181	-	-	-	-	35,181	-	1,173,382		
25	2001	30	-	-	-	-	-	-	-	1,173,382		
26	2002	29	48,967	-	-	-	-	48,967	-	1,222,349		
27	2003	28	48,373	17,157	6,112	-	-	48,373	17,157	1,253,565		
28	2004	27	14,909	-	-	-	-	14,909	-	1,268,474		
29	2005	26	52,126	-	-	-	-	52,126	-	1,320,600		
30	2006	25	20,484	-	-	-	-	20,484	-	1,341,084		
31	2007	24	7,717	-	-	7,697	-	15,414	-	1,356,498		
31	2008	23	9,926	-	-	-	-	9,926	-	1,366,424		
32	2009	22	2,823	6,112	-	95,275	-	98,098	6,112	1,458,410		
33	Total		\$ 1,129,490	\$ 249,217	\$ 23,269	\$ 23,269	\$ 102,972	\$ -	\$ 1,481,679	\$ 23,269	\$ -	\$ 33,810,079

34 Major Additions/Retirements

35	Routine Activity	\$ 352,189	\$ 23,269
36	Historical Interim Activity	1.04%	0.07%
37	Forecast Interim Activity	1.04%	0.07%

Major Additions\*\*

38	2010	21	-	-	-	15,192	-	1,004	-	1,472,598		
39	2011	20	-	-	-	15,340	-	1,013	-	1,486,924		
40	2012	19	-	-	-	15,489	-	1,023	-	1,501,390		
41	2013	18	-	-	-	15,640	-	1,033	-	1,515,996		
42	2014	17	-	-	-	15,792	-	1,043	-	1,530,744		
43	2015	16	-	-	-	15,945	-	1,053	-	1,545,636		
44	2016	15	-	-	-	16,100	-	1,064	-	1,560,673		
45	2017	14	-	-	-	16,257	-	1,074	-	1,575,856		
46	2018	13	-	-	-	16,415	-	1,085	-	1,591,186		
47	2019	12	-	-	-	16,575	-	1,095	-	1,606,666		
48	2020	11	-	-	-	16,736	-	1,106	-	1,622,296		
49	2021	10	-	-	-	16,899	-	1,117	-	1,638,079		
50	2022	9	-	-	-	17,063	-	1,127	-	1,654,015		
51	2023	8	-	-	-	17,229	-	1,138	-	1,670,106		
52	2024	7	-	-	-	17,397	-	1,149	-	1,686,353		
53	2025	6	-	-	-	17,566	-	1,161	-	1,702,759		
54	2026	5	-	-	-	17,737	-	1,172	-	1,719,324		
55	2027	4	-	-	-	17,910	-	1,183	-	1,736,051		
56	2028	3	-	-	-	18,084	-	1,195	-	1,752,940		
57	2029	2	-	-	-	18,260	-	1,206	-	1,769,993		
58	2030	1	-	-	-	18,437	-	1,218	-	1,787,212		
59	2031	0	-	-	-	-	-	-	-	-		
									(1,787,212)			
			\$ 1,833,742	\$ 46,530						\$ 67,936,876		

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	1,481,679
Forecast Additions	352,063
Total Additions	1,833,742
Gross Salvage Value	142,977
Less Cost of Removal	178,721
Net Salvage Value	(35,744)
Total to be Recovered	1,869,486

Forecast Plant Balances 67,936,876

Whole Life Accrual Rate	2.75%
Cost of Removal Accrual Rate	0.26%
Whole Life Accrual Rate (Excluding Cost of Removal)	2.49%
Depreciable Service Life, years	36.3

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/09	1,458,410
Forecast Additions	352,063
Gross Salvage Value	142,977
Less Cost of Removal	178,721
Net Salvage Value	(35,744)
Forecast Plant Balances	34,126,797

Summary by Plant  
The Empire District Electric Company  
**Energy Center FT8s**

Account	Description	Direct Investment 2009\$	Depreciation Rate
341	Structures & Improvements	1,107,790	2.04%
342	Fuel Holders, Producers & Accessories	1,390,887	2.04%
343	Prime Movers	46,538,833	1.96%
344	Generators	531,753	1.91%
345	Accessory Electric Equipment	3,443,296	2.05%
346	Misc Power Equipment	1,049,437	2.04%
<b>Total</b>		54,061,996	1.97% whole life weighted average rate

**Remaining Life Depreciation Rate Calculation**

Per Books Balance 12/31/09	54,061,996
Forecast Interim Additions	2,952,500
Forecast Gross Salvage Value	5,561,621
Forecast Less Cost of Removal	3,200,295
Forecast Net Salvage Value	2,361,326
Forecast Total to be Recovered with COR	54,653,170
Forecast Total to be Recovered w/o COR	51,452,875
Accumulated Depreciation (2009 EOY)	(2,712,381)
Forecast Remaining Life Balance with COR	51,940,789
Forecast Remaining Life Balance w/o COR	48,740,494
Forecast Plant Balances	2,444,668,328
Remaining Life Rate with COR	2.12%
Remaining Life Rate w/o COR	1.99%
Reserve Variance with COR	(3,809,048)





The Empire District Electric Company	Gross Salvage	10%
Unit Property Depreciation Rate Analysis	Cost of Removal	5%
Unit Property: Other Production, Energy Center FT8s	Net Salvage	5%
	Install Date	2003
	Retirement Date	2053
	Service Life, Yrs	50

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 343 Prime Movers Initial Plant Balance

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	2003	50		47,557,139	-	1,024,044			47,557,139	-	47,557,139	
2	2004	49		-	-	-			-	-	47,557,139	
3	2005	48		5,738	-	-			5,738	-	47,562,877	
4	2006	47		-	-	-			-	-	47,562,877	
5	2007	46		-	-	-			-	-	47,562,877	
6	2008	45		-	-	-			-	-	47,562,877	
7	2009	44			1,024,044	-			-	1,024,044	46,538,833	
8	Total		\$ -	\$ 47,562,877	\$ 1,024,044	\$ 1,024,044	\$ -	\$ -	\$ 47,562,877	\$ 1,024,044	\$ -	\$ 331,904,619

9	Major Additions/Retirements		
10	2003	\$ 47,557,139	
11	2009		\$ 1,024,044
12	Routine Activity	\$ 5,738	\$ -
13	Historical Interim Activity	0.00%	0.00%
14	Forecast Interim Activity	0.00%	0.00%

15	2010	43										46,831,333	
16	2011	42										47,693,833	
17	2012	41										48,013,833	
18	2013	40										48,471,333	
19	2014	39										49,491,333	
20	2015	38										49,491,333	
21	2016	37										49,491,333	
22	2017	36										49,491,333	
23	2018	35										49,491,333	
24	2019	34										49,491,333	
25	2020	33										49,491,333	
26	2021	32										49,491,333	
27	2022	31										49,491,333	
28	2023	30										49,491,333	
29	2024	29										49,491,333	
30	2025	28										49,491,333	
31	2026	27										49,491,333	
32	2027	26										49,491,333	
33	2028	25										49,491,333	
34	2029	24										49,491,333	
35	2030	23										49,491,333	
36	2031	22										49,491,333	
37	2032	21										49,491,333	
38	2033	20										49,491,333	
39	2034	19										49,491,333	
40	2035	18										49,491,333	
41	2036	17										49,491,333	
42	2037	16										49,491,333	
43	2038	15										49,491,333	
44	2039	14										49,491,333	
45	2040	13										49,491,333	
46	2041	12										49,491,333	
47	2042	11										49,491,333	
48	2043	10										49,491,333	
49	2044	9										49,491,333	
50	2045	8										49,491,333	
51	2046	7										49,491,333	
52	2047	6										49,491,333	
53	2048	5										49,491,333	
54	2049	4										49,491,333	
55	2050	3										49,491,333	
56	2051	2										49,491,333	
57	2052	1										49,491,333	
58	2053	0									(49,491,333)	-	
										\$ 2,952,500	\$ 47,562,877	\$ 1,024,044	\$ 2,453,076,938

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	47,562,877
Forecast Additions	2,952,500
Total Additions	50,515,377
Gross Salvage Value	4,949,133
Less Cost of Removal	2,474,567
Net Salvage Value	2,474,567
Total to be Recovered	48,040,810

Forecast Plant Balances 2,453,076,938

Whole Life Accrual Rate	1.96%
Cost of Removal Accrual Rate	0.10%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.86%

Depreciable Service Life, years 51.1

Remaining Life Depreciation Rate Calculation

Account Balance 12/31/09	46,538,833
Forecast Additions	2,952,500
Gross Salvage Value	4,949,133
Less Cost of Removal	2,474,567
Net Salvage Value	2,474,567

Forecast Plant Balances 2,121,172,319





The Empire District Electric Company	Gross Salvage	8%
Unit Property Depreciation Rate Analysis	Cost of Removal	10%
Unit Property: Other Production, Energy Center FT8s	Net Salvage	-2%
	Install Date	2003
	Retirement Date	2053
	Service Life, Yrs	50

THE EMPIRE DISTRICT ELECTRIC COMPANY  
DEPRECIATION STUDY

Historical and Forecast Plant Additions & Balances  
Accou 346 Misc Power Equipment Initial Plant Balance

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	2003	50		1,034,531					1,034,531	-	1,034,531	
2	2004	49		14,906					14,906	-	1,049,437	
3	2005	48							-	-	1,049,437	
4	2006	47							-	-	1,049,437	
5	2007	46							-	-	1,049,437	
6	2008	45							-	-	1,049,437	
7	2009	44							-	-	1,049,437	
8	Total		\$ -	\$ 1,049,437	\$ -	\$ -	\$ -	\$ -	\$ 1,049,437	\$ -	\$ -	\$ 7,331,153
9	Major Additions/Retirements											
10	2003			\$ 1,034,531								
11	Routine Activity			\$ 14,906	\$ -							
12	Historical Interim Activity			0.20%	0.00%							
13	Forecast Interim Activity			0.00%	0.00%							
									Major Additions**			
14	2010	43							-	-	1,049,437	
15	2011	42							-	-	1,049,437	
16	2012	41							-	-	1,049,437	
17	2013	40							-	-	1,049,437	
18	2014	39							-	-	1,049,437	
19	2015	38							-	-	1,049,437	
20	2016	37							-	-	1,049,437	
21	2017	36							-	-	1,049,437	
22	2018	35							-	-	1,049,437	
23	2019	34							-	-	1,049,437	
24	2020	33							-	-	1,049,437	
25	2021	32							-	-	1,049,437	
26	2022	31							-	-	1,049,437	
27	2023	30							-	-	1,049,437	
28	2024	29							-	-	1,049,437	
29	2025	28							-	-	1,049,437	
30	2026	27							-	-	1,049,437	
31	2027	26							-	-	1,049,437	
32	2028	25							-	-	1,049,437	
33	2029	24							-	-	1,049,437	
34	2030	23							-	-	1,049,437	
35	2031	22							-	-	1,049,437	
36	2032	21							-	-	1,049,437	
37	2033	20							-	-	1,049,437	
38	2034	19							-	-	1,049,437	
39	2035	18							-	-	1,049,437	
40	2036	17							-	-	1,049,437	
41	2037	16							-	-	1,049,437	
42	2038	15							-	-	1,049,437	
43	2039	14							-	-	1,049,437	
44	2040	13							-	-	1,049,437	
45	2041	12							-	-	1,049,437	
46	2042	11							-	-	1,049,437	
47	2043	10							-	-	1,049,437	
48	2044	9							-	-	1,049,437	
49	2045	8							-	-	1,049,437	
50	2046	7							-	-	1,049,437	
51	2047	6							-	-	1,049,437	
52	2048	5							-	-	1,049,437	
53	2049	4							-	-	1,049,437	
54	2050	3							-	-	1,049,437	
55	2051	2							-	-	1,049,437	
56	2052	1							-	-	1,049,437	
57	2053	0							-	-	1,049,437	
										(1,049,437)	-	
			\$ -	\$ 1,049,437	\$ -						\$ 52,456,944	

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

\*\* From 2009 capital budget

Whole Life Depreciation Rate Calculation

Historical Additions	1,049,437
Forecast Additions	-
Total Additions	1,049,437
Gross Salvage Value	83,955
Less Cost of Removal	104,944
Net Salvage Value	(20,989)
Total to be Recovered	1,070,426
Forecast Plant Balances	52,456,944
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 12/31/09	1,049,437
Forecast Additions	-
Gross Salvage Value	83,955
Less Cost of Removal	104,944
Net Salvage Value	(20,989)
Forecast Plant Balances	45,125,791



Summary by Plant  
The Empire District Electric Company  
**Riverton Combustion Turbines**

Account	Description	Direct Investment 2009\$	Depreciation Rate
341	Structures & Improvements	977,547	1.69%
342	Fuel Holders, Producers & Accessories	1,413,780	2.03%
343	Prime Movers	22,647,973	2.02%
344	Generators	13,466,632	1.91%
345	Accessory Electric Equipment	11,079,327	1.95%
346	Misc Power Equipment	1,570,252	2.04%
<b>Total</b>		51,155,511	1.97% whole life weighted average rate

**Remaining Life Depreciation Rate Calculation**

Per Books Balance 12/31/09	51,155,511
Forecast Interim Additions	14,040,000
Forecast Gross Salvage Value	5,070,600
Forecast Less Cost of Removal	3,311,882
Forecast Net Salvage Value	1,758,718
Forecast Total to be Recovered with COR	63,436,793
Forecast Total to be Recovered w/o COR	60,124,911
Accumulated Depreciation (2009 EOY)	(9,760,554)
Forecast Remaining Life Balance with COR	53,676,239
Forecast Remaining Life Balance w/o COR	50,364,357
Forecast Plant Balances	2,779,555,842
Remaining Life Rate with COR	1.93%
Remaining Life Rate w/o COR	1.81%
Reserve Variance with COR	1,134,135

# APPENDIX

Schedule TJS-2

<b>The Empire District Electric Company</b>	Gross Salvage	8%	<b>THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY</b>		
<b>Unit Property Depreciation Rate Analysis</b>	Cost of Removal	10%			
<b>Unit Property: Other Production, Riverton Combustion Turbines</b>	Net Salvage	-2%			
	Install Date	1964 Unit 9	1988 Units 10, 11	2007 Unit 12	
	Retirement Date	2018 Unit 9	2038 Units 10, 11	2057 Unit 12	
	Service Life, Yrs	54 Unit 9	50 Units 10, 11	50 Unit 12	

**Historical and Forecast Plant Additions & Balances**

Accou 341 Structures & Improvements Initial Plant Balance

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]
Line	Vintage Year	Vintage Age	Reported Per Books				Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Advance	Additions	Retirements		
			Beg Balance	Additions	Retirements	Retirements	Additions	Retirements				
1	1964	93	45,386	-	-	-	-	-	45,386	-	-	45,386
2	1965	92	-	-	-	-	-	-	-	-	-	45,386
3	1966	91	-	-	-	-	-	-	-	-	-	45,386
4	1967	90	-	-	-	-	-	-	-	-	-	45,386
5	1968	89	-	-	-	-	-	-	-	-	-	45,386
6	1969	88	-	-	-	-	-	-	-	-	-	45,386
7	1970	87	-	-	-	-	-	-	-	-	-	45,386
8	1971	86	-	-	-	-	-	-	-	-	-	45,386
9	1972	85	-	-	-	-	-	-	-	-	-	45,386
10	1973	84	-	-	-	-	-	-	-	-	-	45,386
11	1974	83	-	-	-	-	-	-	-	-	-	45,386
12	1975	82	-	-	-	-	-	-	-	-	-	45,386
13	1976	81	-	-	-	-	-	-	-	-	-	45,386
14	1977	80	-	-	-	-	-	-	-	-	-	45,386
15	1978	79	-	-	-	-	-	-	-	-	-	45,386
16	1979	78	-	-	-	-	-	-	-	-	-	45,386
17	1980	77	-	-	-	-	-	-	-	-	-	45,386
18	1981	76	-	-	-	-	-	-	-	-	-	45,386
19	1982	75	-	-	-	-	-	-	-	-	-	45,386
20	1983	74	-	-	-	-	-	-	-	-	-	45,386
21	1984	73	-	-	-	-	-	-	-	-	-	45,386
22	1985	72	-	-	-	-	-	-	-	-	-	45,386
23	1986	71	-	-	-	-	-	-	-	-	-	45,386
24	1987	70	-	-	-	-	-	-	-	-	-	45,386
25	1988	69	513,310	-	-	-	-	-	513,310	-	-	558,696
26	1989	68	-	-	-	-	-	-	-	-	-	558,696
27	1990	67	11,784	-	-	-	-	-	11,784	-	-	570,480
28	1991	66	-	-	-	-	-	-	-	-	-	570,480
29	1992	65	-	-	-	-	-	-	-	-	-	570,480
30	1993	64	-	-	-	-	-	-	-	-	-	570,480
31	1994	63	-	-	-	-	-	-	-	-	-	570,480
32	1995	62	12,726	-	-	-	-	-	12,726	-	-	583,206
33	1996	61	-	-	-	-	-	-	-	-	-	583,206
34	1997	60	-	-	-	-	-	-	-	-	-	583,206
35	1998	59	-	-	-	-	-	-	-	-	-	583,206
36	1999	58	-	-	-	-	-	-	-	-	-	583,206
37	2000	57	-	-	-	-	-	-	-	-	-	583,206
38	2001	56	-	-	-	-	-	-	-	-	-	583,206
39	2002	55	-	-	-	-	-	-	-	-	-	583,206
40	2003	54	-	-	-	-	-	-	-	-	-	583,206
41	2004	53	-	-	-	-	-	-	-	-	-	583,206
42	2005	52	-	-	-	-	-	-	-	-	-	583,206
43	2006	51	-	-	-	-	-	-	-	-	-	583,206
44	2007	50	-	232,337	-	-	-	-	232,337	-	-	815,543
45	2008	49	-	-	-	-	-	-	-	-	162,004	977,547
46	2009	48	-	-	-	-	-	-	-	-	-	977,547
47	Total		\$ 583,206	\$ 232,337	\$ -	\$ -	\$ -	\$ -	\$ 815,543	\$ -	\$ 162,004	\$ 14,828,165

48 Major Additions/Retirements  
49 2007

\$ 232,337

50 Routine Activity

\$ - \$ -

51 Historical Interim Activity

0.00% 0.00%

52 Forecast Interim Activity

0.00% 0.00%



# APPENDIX

Schedule TJS-2

The Empire District Electric Company

Gross Salvage 8%  
 Cost of Removal 10%  
 Net Salvage -2%  
 Install Date 1964 Unit 9  
 Retirement Date 2018 Unit 9  
 Service Life, Yrs 54 Unit 9

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Other Production, Riverton Combustion Turbines

1988 Units 10, 11  
 2038 Units 10, 11  
 50 Units 10, 11

2007 Unit 12  
 2057 Unit 12  
 50 Unit 12

Historical and Forecast Plant Additions & Balances

Accou 342 Fuel Holders, Producers & Accessories

Initial Plant Balance

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]
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	1964	93	1,641	-	-	-	-	-	1,641	-	-	1,641
2	1965	92	-	-	-	-	-	-	-	-	-	1,641
3	1966	91	-	-	-	-	-	-	-	-	-	1,641
4	1967	90	-	-	-	-	-	-	-	-	-	1,641
5	1968	89	-	-	-	-	-	-	-	-	-	1,641
6	1969	88	-	-	-	-	-	-	-	-	-	1,641
7	1970	87	-	-	-	-	-	-	-	-	-	1,641
8	1971	86	-	-	-	-	-	-	-	-	-	1,641
9	1972	85	-	-	-	-	-	-	-	-	-	1,641
10	1973	84	-	-	-	-	-	-	-	-	-	1,641
11	1974	83	190	-	-	-	-	-	190	-	-	1,831
12	1975	82	-	-	-	-	-	-	-	-	-	1,831
13	1976	81	-	-	-	-	-	-	-	-	-	1,831
14	1977	80	-	-	-	-	-	-	-	-	-	1,831
15	1978	79	-	-	-	-	-	-	-	-	-	1,831
16	1979	78	-	-	-	-	-	-	-	-	-	1,831
17	1980	77	-	-	-	-	-	-	-	-	-	1,831
18	1981	76	-	-	-	-	-	-	-	-	-	1,831
19	1982	75	-	-	-	-	-	-	-	-	-	1,831
20	1983	74	-	-	-	-	-	-	-	-	-	1,831
21	1984	73	-	-	-	-	-	-	-	-	-	1,831
22	1985	72	-	-	-	-	-	-	-	-	-	1,831
23	1986	71	-	-	-	-	-	-	-	-	-	1,831
24	1987	70	-	-	-	-	-	-	-	-	-	1,831
25	1988	69	449,148	-	-	-	-	-	449,148	-	-	450,979
26	1989	68	-	-	-	-	-	-	-	-	-	450,979
27	1990	67	8,882	-	-	-	-	-	8,882	-	-	459,861
28	1991	66	-	-	-	-	-	-	-	-	-	459,861
29	1992	65	-	-	-	-	-	-	-	-	-	459,861
30	1993	64	891	-	-	-	-	-	891	-	-	460,752
31	1994	63	7,426	-	-	-	-	-	7,426	-	-	468,178
32	1995	62	-	-	-	-	-	-	-	-	-	468,178
33	1996	61	-	-	-	-	-	-	-	-	-	468,178
34	1997	60	-	-	-	-	-	-	-	-	-	468,178
35	1998	59	-	-	-	-	-	-	-	-	-	468,178
36	1999	58	-	-	-	-	-	-	-	-	-	468,178
37	2000	57	-	-	-	-	-	-	-	-	-	468,178
38	2001	56	-	-	-	-	-	-	-	-	-	468,178
39	2002	55	-	-	-	-	-	-	-	-	-	468,178
40	2003	54	-	-	-	-	-	-	-	-	-	468,178
41	2004	53	-	-	-	-	-	-	-	-	-	468,178
42	2005	52	-	-	-	-	-	-	-	-	-	468,178
43	2006	51	-	-	-	-	-	-	-	-	-	468,178
44	2007	50	-	945,602	-	-	-	-	945,602	-	-	1,413,780
45	2008	49	-	-	-	-	-	-	-	-	-	1,413,780
46	2009	48	-	-	-	-	-	-	-	-	-	1,413,780
47	Total		\$ 468,178	\$ 945,602	\$ -	\$ -	\$ -	\$ -	\$ 1,413,780	\$ -	\$ -	\$ 13,111,991
48	Major Additions/Retirements											
49	2007		\$	945,602								
50	Routine Activity		\$	-	\$	-						
51	Historical Interim Activity			0.00%		0.00%						
52	Forecast Interim Activity			0.00%		0.00%						

# APPENDIX

Schedule TJS-2

<b>The Empire District Electric Company</b>	Gross Salvage	8%	<b>THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY</b>		
	Cost of Removal	10%			
<b>Unit Property Depreciation Rate Analysis</b>	Net Salvage	-2%			
<b>Unit Property: Other Production, Riverton Combustion Turbines</b>	Install Date	1964 Unit 9	1988 Units 10, 11	2007 Unit 12	
	Retirement Date	2018 Unit 9	2038 Units 10, 11	2057 Unit 12	
	Service Life, Yrs	54 Unit 9	50 Units 10, 11	50 Unit 12	

**Historical and Forecast Plant Additions & Balances**

Accou 342 Fuel Holders, Producers & Accessories Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*							
			Transaction Year			Vintage Year	Advance	Advance	Additions			Retirements						
			Beg Balance	Additions	Retirements	Retirements	Additions	Retirements										
								Major Additions**				Major Retirements						
53	2010	47						-	-		1,413,780							
54	2011	46						-	-		1,413,780							
55	2012	45						-	-		1,413,780							
56	2013	44						-	-		1,413,780							
57	2014	43						-	-		1,413,780							
58	2015	42						-	-		1,413,780							
59	2016	41						-	-		1,413,780							
60	2017	40						-	-		1,413,780							
61	2018	39						-	-	(1,831)	1,411,949							
62	2019	38						-	-		1,411,949							
63	2020	37						-	-		1,411,949							
64	2021	36						-	-		1,411,949							
65	2022	35						-	-		1,411,949							
66	2023	34						-	-		1,411,949							
67	2024	33						-	-		1,411,949							
68	2025	32						-	-		1,411,949							
69	2026	31						-	-		1,411,949							
70	2027	30						-	-		1,411,949							
71	2028	29						-	-		1,411,949							
72	2029	28						-	-		1,411,949							
73	2030	27						-	-		1,411,949							
74	2031	26						-	-		1,411,949							
75	2032	25						-	-		1,411,949							
76	2033	24						-	-		1,411,949							
77	2034	23						-	-		1,411,949							
78	2035	22						-	-		1,411,949							
79	2036	21						-	-		1,411,949							
80	2037	20						-	-		1,411,949							
81	2038	19						-	-	(466,347)	945,602							
82	2039	18						-	-		945,602							
83	2040	17						-	-		945,602							
84	2041	16						-	-		945,602							
85	2042	15						-	-		945,602							
86	2043	14						-	-		945,602							
87	2044	13						-	-		945,602							
88	2045	12						-	-		945,602							
89	2046	11						-	-		945,602							
90	2047	10						-	-		945,602							
91	2048	9						-	-		945,602							
92	2049	8						-	-		945,602							
93	2050	7						-	-		945,602							
94	2051	6						-	-		945,602							
95	2052	5						-	-		945,602							
96	2053	4						-	-		945,602							
97	2054	3						-	-		945,602							
98	2055	2						-	-		945,602							
99	2056	1						-	-		945,602							
100	2057	0						-	-	(945,602)	-							
											\$	-	\$	1,413,780	\$	-	\$	70,627,649

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

\*\* From 2009 capital budget

**Whole Life Depreciation Rate Calculation**

Historical Additions	1,413,780
Forecast Additions	-
Total Additions	1,413,780
Gross Salvage Value	75,648
Less Cost of Removal	94,560
Net Salvage Value	(18,912)
Total to be Recovered	1,432,692

Forecast Plant Balances 70,627,649

Whole Life Accrual Rate	2.03%
Cost of Removal Accrual Rate	0.13%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.89%

Depreciable Service Life, years 49.3

**Remaining Life Depreciation Rate Calculation**

Account Balance 12/31/09	1,413,780
Forecast Additions	-
Gross Salvage Value	75,648
Less Cost of Removal	94,560
Net Salvage Value	(18,912)

Forecast Plant Balances 57,515,658

# APPENDIX

Schedule TJS-2

The Empire District Electric Company

Gross Salvage 10%  
 Cost of Removal 5%  
 Net Salvage 5%  
 Install Date 1964 Unit 9  
 Retirement Date 2018 Unit 9  
 Service Life, Yrs 54 Unit 9

THE EMPIRE DISTRICT ELECTRIC COMPANY  
 DEPRECIATION STUDY

Unit Property Depreciation Rate Analysis

Unit Property: Other Production, Riverton Combustion Turbines

1988 Units 10, 11  
 2038 Units 10, 11  
 2007 Unit 12  
 2057 Unit 12  
 50 Units 10, 11

Historical and Forecast Plant Additions & Balances

Accou 343 Prime Movers

Initial Plant Balance

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]
Line	Vintage Year	Vintage Age	Reported Per Books				Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Advance	Adjusted Transaction Year			
			Beg	Balance	Additions	Retirements	Retirements	Additions	Retirements	Additions		
1	1964	93	661,755	-	-	85,300	-	-	661,755	-	-	661,755
2	1965	92	-	-	-	-	-	-	-	-	-	661,755
3	1966	91	-	-	-	-	-	-	-	-	-	661,755
4	1967	90	7,215	-	-	-	-	-	7,215	-	-	668,970
5	1968	89	-	-	-	-	-	-	-	-	-	668,970
6	1969	88	40,983	-	-	-	-	-	40,983	-	-	709,953
7	1970	87	-	-	-	-	-	-	-	-	-	709,953
8	1971	86	72,731	-	-	-	-	-	72,731	-	-	782,684
9	1972	85	-	-	-	-	-	-	-	-	-	782,684
10	1973	84	115,319	-	-	-	-	-	115,319	-	-	898,003
11	1974	83	38,131	-	-	-	-	-	38,131	-	-	936,134
12	1975	82	-	-	-	-	-	-	-	-	-	936,134
13	1976	81	2,454	-	-	-	-	-	2,454	-	-	938,588
14	1977	80	-	-	-	-	-	-	-	-	-	938,588
15	1978	79	-	-	-	-	-	-	-	-	-	938,588
16	1979	78	304,302	-	-	-	-	-	304,302	-	-	1,242,890
17	1980	77	-	-	-	-	-	-	-	-	-	1,242,890
18	1981	76	-	-	-	-	-	-	-	-	-	1,242,890
19	1982	75	-	-	-	-	-	-	-	-	-	1,242,890
20	1983	74	90,968	-	-	10,988	-	-	90,968	-	-	1,333,858
21	1984	73	-	-	-	-	-	-	-	-	-	1,333,858
22	1985	72	-	-	-	-	-	-	-	-	-	1,333,858
23	1986	71	-	-	-	-	-	-	-	-	-	1,333,858
24	1987	70	-	-	-	-	-	-	-	-	-	1,333,858
25	1988	69	3,785,653	-	-	72,286	-	-	3,785,653	-	-	5,119,511
26	1989	68	968,268	-	-	-	-	-	968,268	-	-	6,087,779
27	1990	67	24,597	-	-	-	-	-	24,597	-	-	6,112,376
28	1991	66	-	-	-	-	-	-	-	-	-	6,112,376
29	1992	65	128,552	-	-	-	-	-	128,552	-	-	6,240,928
30	1993	64	-	-	-	-	-	-	-	-	-	6,240,928
31	1994	63	10,260	-	-	-	-	-	10,260	-	-	6,251,188
32	1995	62	1,077,981	-	-	-	-	-	1,077,981	-	-	7,329,169
33	1996	61	33,474	-	-	-	-	-	33,474	-	-	7,362,643
34	1997	60	32,883	-	-	-	-	-	32,883	-	-	7,395,526
35	1998	59	521,983	-	-	-	-	-	521,983	-	-	7,917,509
36	1999	58	-	20,678	-	-	-	-	20,678	-	-	7,938,187
37	2000	57	-	-	96,288	-	-	-	-	96,288	-	7,841,899
38	2001	56	-	-	-	-	-	-	-	-	-	7,841,899
39	2002	55	-	-	-	-	-	-	-	-	-	7,841,899
40	2003	54	-	-	-	-	-	-	-	-	-	7,841,899
41	2004	53	-	12,495	-	-	-	-	12,495	-	-	7,854,394
42	2005	52	-	-	-	-	-	-	-	-	-	7,854,394
43	2006	51	-	-	72,286	-	-	-	-	72,286	-	7,782,108
44	2007	50	-	14,865,865	-	-	-	-	14,865,865	-	-	22,647,973
45	2008	49	-	-	-	-	-	-	-	-	-	22,647,973
46	2009	48	-	-	-	-	-	-	-	-	-	22,647,973
47	Total		\$ 7,917,509	\$ 14,899,038	\$ 168,574	\$ 168,574	\$ -	\$ -	\$ 22,816,547	\$ 168,574	\$ -	\$ 226,445,895
48	Major Additions/Retirements											
49	2007			\$ 14,865,865								
50	Routine Activity		\$ 33,173	\$ 168,574								
51	Historical Interim Activity		0.01%	0.07%								
52	Forecast Interim Activity		0.00%	0.00%								

# APPENDIX

Schedule TJS-2

<b>The Empire District Electric Company</b>	Gross Salvage	10%	THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY		
	Cost of Removal	5%			
<b>Unit Property Depreciation Rate Analysis</b>	Net Salvage	5%			
<b>Unit Property: Other Production, Riverton Combustion Turbines</b>	Install Date	1964 Unit 9	1988 Units 10, 11	2007 Unit 12	
	Retirement Date	2018 Unit 9	2038 Units 10, 11	2057 Unit 12	
	Service Life, Yrs	54 Unit 9	50 Units 10, 11	50 Unit 12	

**Historical and Forecast Plant Additions & Balances**

Accou 343 Prime Movers Initial Plant Balance

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								
							Major Additions**		Major Retirements				
53	2010	47						3,315,000	-		25,962,973		
54	2011	46						2,055,000	-		28,017,973		
55	2012	45						570,000	-		28,587,973		
56	2013	44						7,550,000	-		36,137,973		
57	2014	43						550,000	-		36,687,973		
58	2015	42							-		36,687,973		
59	2016	41							-		36,687,973		
60	2017	40							-		36,687,973		
61	2018	39							-	(1,237,570)	35,450,403		
62	2019	38							-	-	35,450,403		
63	2020	37							-	-	35,450,403		
64	2021	36							-	-	35,450,403		
65	2022	35							-	-	35,450,403		
66	2023	34							-	-	35,450,403		
67	2024	33							-	-	35,450,403		
68	2025	32							-	-	35,450,403		
69	2026	31							-	-	35,450,403		
70	2027	30							-	-	35,450,403		
71	2028	29							-	-	35,450,403		
72	2029	28							-	-	35,450,403		
73	2030	27							-	-	35,450,403		
74	2031	26							-	-	35,450,403		
75	2032	25							-	-	35,450,403		
76	2033	24							-	-	35,450,403		
77	2034	23							-	-	35,450,403		
78	2035	22							-	-	35,450,403		
79	2036	21							-	-	35,450,403		
80	2037	20							-	-	35,450,403		
81	2038	19							-	(6,544,538)	28,905,865		
82	2039	18							-	-	28,905,865		
83	2040	17							-	-	28,905,865		
84	2041	16							-	-	28,905,865		
85	2042	15							-	-	28,905,865		
86	2043	14							-	-	28,905,865		
87	2044	13							-	-	28,905,865		
88	2045	12							-	-	28,905,865		
89	2046	11							-	-	28,905,865		
90	2047	10							-	-	28,905,865		
91	2048	9							-	-	28,905,865		
92	2049	8							-	-	28,905,865		
93	2050	7							-	-	28,905,865		
94	2051	6							-	-	28,905,865		
95	2052	5							-	-	28,905,865		
96	2053	4							-	-	28,905,865		
97	2054	3							-	-	28,905,865		
98	2055	2							-	-	28,905,865		
99	2056	1							-	-	28,905,865		
100	2057	0							-	-	28,905,865		
										(28,905,865)	-		
										\$ 14,040,000	\$ 22,816,547	\$ 168,574	\$ 1,750,124,174

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

\*\* From 2009 capital budget

**Whole Life Depreciation Rate Calculation**

Historical Additions	22,816,547
Forecast Additions	14,040,000
Total Additions	36,856,547
Gross Salvage Value	2,890,587
Less Cost of Removal	1,445,293
Net Salvage Value	1,445,293
Total to be Recovered	35,411,254

Forecast Plant Balances 1,750,124,174

Whole Life Accrual Rate	2.02%
Cost of Removal Accrual Rate	0.08%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.94%

Depreciable Service Life, years 49.4

**Remaining Life Depreciation Rate Calculation**

Account Balance 12/31/09	22,647,973
Forecast Additions	14,040,000
Gross Salvage Value	2,890,587
Less Cost of Removal	1,445,293
Net Salvage Value	1,445,293

Forecast Plant Balances 1,523,678,279

# APPENDIX

Schedule TJS-2

<b>The Empire District Electric Company</b>	Gross Salvage	10%	<b>THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY</b>		
<b>Unit Property Depreciation Rate Analysis</b>	Cost of Removal	5%			
<b>Unit Property: Other Production, Riverton Combustion Turbines</b>	Net Salvage	5%			
	Install Date	1964 Unit 9	1988 Units 10, 11	2007 Unit 12	
	Retirement Date	2018 Unit 9	2038 Units 10, 11	2057 Unit 12	
	Service Life, Yrs	54 Unit 9	50 Units 10, 11	50 Unit 12	

**Historical and Forecast Plant Additions & Balances**

Accou 344 Generators Initial Plant Balance

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]
Line	Vintage Year	Vintage Age	Reported Per Books				Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*
			Transaction Year			Vintage Year	Advance	Advance	Additions	Retirements		
			Beg Balance	Additions	Retirements	Retirements	Additions	Retirements				
1	1964	93	177,827	-	-	-	-	-	177,827	-	-	177,827
2	1965	92	-	-	-	-	-	-	-	-	-	177,827
3	1966	91	-	-	-	-	-	-	-	-	-	177,827
4	1967	90	-	-	-	-	-	-	-	-	-	177,827
5	1968	89	-	-	-	-	-	-	-	-	-	177,827
6	1969	88	-	-	-	-	-	-	-	-	-	177,827
7	1970	87	-	-	-	-	-	-	-	-	-	177,827
8	1971	86	-	-	-	-	-	-	-	-	-	177,827
9	1972	85	-	-	-	-	-	-	-	-	-	177,827
10	1973	84	-	-	-	-	-	-	-	-	-	177,827
11	1974	83	-	-	-	-	-	-	-	-	-	177,827
12	1975	82	-	-	-	-	-	-	-	-	-	177,827
13	1976	81	-	-	-	-	-	-	-	-	-	177,827
14	1977	80	-	-	-	-	-	-	-	-	-	177,827
15	1978	79	-	-	-	-	-	-	-	-	-	177,827
16	1979	78	-	-	-	-	-	-	-	-	-	177,827
17	1980	77	-	-	-	-	-	-	-	-	-	177,827
18	1981	76	-	-	-	-	-	-	-	-	-	177,827
19	1982	75	-	-	-	-	-	-	-	-	-	177,827
20	1983	74	-	-	-	-	-	-	-	-	-	177,827
21	1984	73	-	-	-	-	-	-	-	-	-	177,827
22	1985	72	-	-	-	-	-	-	-	-	-	177,827
23	1986	71	-	-	-	-	-	-	-	-	-	177,827
24	1987	70	-	-	-	-	-	-	-	-	-	177,827
25	1988	69	1,764,496	-	-	-	-	-	1,764,496	-	-	1,942,323
26	1989	68	-	-	-	-	-	-	-	-	-	1,942,323
27	1990	67	-	-	-	-	-	-	-	-	-	1,942,323
28	1991	66	-	-	-	-	-	-	-	-	-	1,942,323
29	1992	65	-	-	-	-	-	-	-	-	-	1,942,323
30	1993	64	-	-	-	-	-	-	-	-	-	1,942,323
31	1994	63	-	-	-	-	-	-	-	-	-	1,942,323
32	1995	62	78,601	-	-	-	-	-	78,601	-	-	2,020,924
33	1996	61	-	-	-	-	-	-	-	-	-	2,020,924
34	1997	60	-	-	-	-	-	-	-	-	-	2,020,924
35	1998	59	-	-	-	-	-	-	-	-	-	2,020,924
36	1999	58	-	-	-	-	-	-	-	-	-	2,020,924
37	2000	57	-	-	-	-	-	-	-	-	-	2,020,924
38	2001	56	-	-	-	-	-	-	-	-	-	2,020,924
39	2002	55	-	-	-	-	-	-	-	-	-	2,020,924
40	2003	54	-	-	-	-	-	-	-	-	-	2,020,924
41	2004	53	-	-	-	-	-	-	-	-	-	2,020,924
42	2005	52	-	-	-	-	-	-	-	-	-	2,020,924
43	2006	51	-	-	-	-	-	-	-	-	-	2,020,924
44	2007	50	-	11,445,708	-	-	-	-	11,445,708	-	-	13,466,632
45	2008	49	-	-	-	-	-	-	-	-	-	13,466,632
46	2009	48	-	-	-	-	-	-	-	-	-	13,466,632
47	Total		\$ 2,020,924	\$ 11,445,708	\$ -	\$ -	\$ -	\$ -	\$ 13,466,632	\$ -	\$ -	\$ 82,515,093
48	Major Additions/Retirements											
49	2007			\$ 11,445,708								
50	Routine Activity		\$ -	\$ -								
51	Historical Interim Activity			0.00%	0.00%							
52	Forecast Interim Activity			0.00%	0.00%							



# APPENDIX

Schedule TJS-2

<b>The Empire District Electric Company</b>	Gross Salvage	10%	<b>THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY</b>		
	Cost of Removal	5%			
<b>Unit Property Depreciation Rate Analysis</b>	Net Salvage	5%			
<b>Unit Property: Other Production, Riverton Combustion Turbines</b>	Install Date	1964 Unit 9	1988 Units 10, 11	2007 Unit 12	
	Retirement Date	2018 Unit 9	2038 Units 10, 11	2057 Unit 12	
	Service Life, Yrs	54 Unit 9	50 Units 10, 11	50 Unit 12	

**Historical and Forecast Plant Additions & Balances**

Accou 344 Generators Initial Plant Balance

Line	Vintage Year	Vintage Age	Reported Per Books			Adjustments		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*		
			Transaction Year			Vintage Year	Advance	Advance	Additions			Retirements	
			Beg	Balance	Additions	Retirements	Additions	Retirements					
								Major Additions**				Major Retirements	
53	2010	47						-	-	13,466,632			
54	2011	46						-	-	13,466,632			
55	2012	45						-	-	13,466,632			
56	2013	44						-	-	13,466,632			
57	2014	43						-	-	13,466,632			
58	2015	42						-	-	13,466,632			
59	2016	41						-	-	13,466,632			
60	2017	40						-	-	13,466,632			
61	2018	39						-	-	13,288,805			
62	2019	38						-	-	13,288,805			
63	2020	37						-	-	13,288,805			
64	2021	36						-	-	13,288,805			
65	2022	35						-	-	13,288,805			
66	2023	34						-	-	13,288,805			
67	2024	33						-	-	13,288,805			
68	2025	32						-	-	13,288,805			
69	2026	31						-	-	13,288,805			
70	2027	30						-	-	13,288,805			
71	2028	29						-	-	13,288,805			
72	2029	28						-	-	13,288,805			
73	2030	27						-	-	13,288,805			
74	2031	26						-	-	13,288,805			
75	2032	25						-	-	13,288,805			
76	2033	24						-	-	13,288,805			
77	2034	23						-	-	13,288,805			
78	2035	22						-	-	13,288,805			
79	2036	21						-	-	13,288,805			
80	2037	20						-	-	13,288,805			
81	2038	19						-	-	11,445,708			
82	2039	18						-	-	11,445,708			
83	2040	17						-	-	11,445,708			
84	2041	16						-	-	11,445,708			
85	2042	15						-	-	11,445,708			
86	2043	14						-	-	11,445,708			
87	2044	13						-	-	11,445,708			
88	2045	12						-	-	11,445,708			
89	2046	11						-	-	11,445,708			
90	2047	10						-	-	11,445,708			
91	2048	9						-	-	11,445,708			
92	2049	8						-	-	11,445,708			
93	2050	7						-	-	11,445,708			
94	2051	6						-	-	11,445,708			
95	2052	5						-	-	11,445,708			
96	2053	4						-	-	11,445,708			
97	2054	3						-	-	11,445,708			
98	2055	2						-	-	11,445,708			
99	2056	1						-	-	11,445,708			
100	2057	0						-	-	11,445,708			
										(11,445,708)	-		
										\$ -	\$ 13,466,632	\$ -	\$ 673,492,701

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

\*\* From 2009 capital budget

**Whole Life Depreciation Rate Calculation**

Historical Additions	13,466,632
Forecast Additions	-
Total Additions	13,466,632
Gross Salvage Value	1,144,571
Less Cost of Removal	572,285
Net Salvage Value	572,285
Total to be Recovered	12,894,347
Forecast Plant Balances	673,492,701

Whole Life Accrual Rate	1.91%
Cost of Removal Accrual Rate	0.08%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.83%

Depreciable Service Life, years 52.2

**Remaining Life Depreciation Rate Calculation**

Account Balance 12/31/09	13,466,632
Forecast Additions	-
Gross Salvage Value	1,144,571
Less Cost of Removal	572,285
Net Salvage Value	572,285
Forecast Plant Balances	590,977,608

# APPENDIX

Schedule TJS-2

<b>The Empire District Electric Company</b>	Gross Salvage	8%	<b>THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY</b>		
<b>Unit Property Depreciation Rate Analysis</b>	Cost of Removal	10%			
<b>Unit Property: Other Production, Riverton Combustion Turbines</b>	Net Salvage	-2%			
	Install Date	1964 Unit 9	1988 Units 10, 11	2007 Unit 12	
	Retirement Date	2018 Unit 9	2038 Units 10, 11	2057 Unit 12	
	Service Life, Yrs	54 Unit 9	50 Units 10, 11	50 Unit 12	

**Historical and Forecast Plant Additions & Balances**

Accou 345 Accessory Electric Equipment Initial Plant Balance

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]
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	1964	93	45,121	-	-	-	-	-	45,121	-	-	45,121
2	1965	92	-	-	-	-	-	-	-	-	-	45,121
3	1966	91	-	-	-	-	-	-	-	-	-	45,121
4	1967	90	-	-	-	-	-	-	-	-	-	45,121
5	1968	89	-	-	-	-	-	-	-	-	-	45,121
6	1969	88	-	-	-	-	-	-	-	-	-	45,121
7	1970	87	-	-	-	-	-	-	-	-	-	45,121
8	1971	86	-	-	-	-	-	-	-	-	-	45,121
9	1972	85	-	-	-	-	-	-	-	-	-	45,121
10	1973	84	-	-	-	-	-	-	-	-	-	45,121
11	1974	83	-	-	-	-	-	-	-	-	-	45,121
12	1975	82	-	-	-	-	-	-	-	-	-	45,121
13	1976	81	-	-	-	-	-	-	-	-	-	45,121
14	1977	80	-	-	-	-	-	-	-	-	-	45,121
15	1978	79	-	-	-	-	-	-	-	-	-	45,121
16	1979	78	-	-	-	-	-	-	-	-	-	45,121
17	1980	77	-	-	-	-	-	-	-	-	-	45,121
18	1981	76	-	-	-	-	-	-	-	-	-	45,121
19	1982	75	-	-	-	-	-	-	-	-	-	45,121
20	1983	74	-	-	-	-	-	-	-	-	-	45,121
21	1984	73	-	-	-	-	-	-	-	-	-	45,121
22	1985	72	-	-	-	-	-	-	-	-	-	45,121
23	1986	71	-	-	-	-	-	-	-	-	-	45,121
24	1987	70	-	-	-	-	-	-	-	-	-	45,121
25	1988	69	203,186	-	-	32,082	-	-	203,186	-	-	248,307
26	1989	68	-	-	-	-	-	-	-	-	-	248,307
27	1990	67	-	-	-	-	-	-	-	-	-	248,307
28	1991	66	38,826	-	-	-	-	-	38,826	-	-	287,133
29	1992	65	-	-	-	-	-	-	-	-	-	287,133
30	1993	64	-	-	-	-	-	-	-	-	-	287,133
31	1994	63	-	-	-	-	-	-	-	-	-	287,133
32	1995	62	674,923	-	-	-	-	-	674,923	-	-	962,056
33	1996	61	-	-	-	-	-	-	-	-	-	962,056
34	1997	60	-	-	-	-	-	-	-	-	-	962,056
35	1998	59	-	-	-	-	-	-	-	-	-	962,056
36	1999	58	-	-	-	-	-	-	-	-	-	962,056
37	2000	57	-	-	-	-	-	-	-	-	-	962,056
38	2001	56	-	-	-	-	-	-	-	-	-	962,056
39	2002	55	-	27,610	-	-	-	-	27,610	-	-	989,666
40	2003	54	-	-	-	-	-	-	-	-	-	989,666
41	2004	53	-	3,580	-	-	-	-	3,580	-	-	993,246
42	2005	52	-	-	-	-	-	-	-	-	-	993,246
43	2006	51	-	-	32,082	-	-	-	-	32,082	-	961,164
44	2007	50	-	9,477,936	-	-	-	-	9,477,936	-	-	10,439,100
45	2008	49	-	-	-	-	-	-	-	-	639,599	11,078,699
46	2009	48	-	628	-	-	-	-	628	-	-	11,079,327
47	Total		\$ 962,056	\$ 9,509,754	\$ 32,082	\$ 32,082	\$ -	\$ -	\$ 10,471,810	\$ 32,082	\$ 639,599	\$ 47,234,863

48 Major Additions/Retirements  
49 2007

\$ 9,477,936

50 Routine Activity

\$ 31,818 \$ 32,082

51 Historical Interim Activity

0.07% 0.07%

52 Forecast Interim Activity

0.00% 0.00%

# APPENDIX

Schedule TJS-2

The Empire District Electric Company	Gross Salvage	8%	THE EMPIRE DISTRICT ELECTRIC COMPANY		
Unit Property Depreciation Rate Analysis	Cost of Removal	10%	DEPRECIATION STUDY		
Unit Property: Other Production, Riverton Combustion Turbines	Net Salvage	-2%			
Install Date	1964 Unit 9		1988 Units 10, 11	2007 Unit 12	
Retirement Date	2018 Unit 9		2038 Units 10, 11	2057 Unit 12	
Service Life, Yrs	54 Unit 9		50 Units 10, 11	50 Unit 12	

### Historical and Forecast Plant Additions & Balances

Accou 345 Accessory Electric Equipment Initial Plant Balance

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								
								Major Additions**				Major Retirements	
53	2010	47						-	-	11,079,327			
54	2011	46						-	-	11,079,327			
55	2012	45						-	-	11,079,327			
56	2013	44						-	-	11,079,327			
57	2014	43						-	-	11,079,327			
58	2015	42						-	-	11,079,327			
59	2016	41						-	-	11,079,327			
60	2017	40						-	-	11,079,327			
61	2018	39						-	-	11,034,206			
62	2019	38						-	-	11,034,206			
63	2020	37						-	-	11,034,206			
64	2021	36						-	-	11,034,206			
65	2022	35						-	-	11,034,206			
66	2023	34						-	-	11,034,206			
67	2024	33						-	-	11,034,206			
68	2025	32						-	-	11,034,206			
69	2026	31						-	-	11,034,206			
70	2027	30						-	-	11,034,206			
71	2028	29						-	-	11,034,206			
72	2029	28						-	-	11,034,206			
73	2030	27						-	-	11,034,206			
74	2031	26						-	-	11,034,206			
75	2032	25						-	-	11,034,206			
76	2033	24						-	-	11,034,206			
77	2034	23						-	-	11,034,206			
78	2035	22						-	-	11,034,206			
79	2036	21						-	-	11,034,206			
80	2037	20						-	-	11,034,206			
81	2038	19						-	-	10,118,163			
82	2039	18						-	-	10,118,163			
83	2040	17						-	-	10,118,163			
84	2041	16						-	-	10,118,163			
85	2042	15						-	-	10,118,163			
86	2043	14						-	-	10,118,163			
87	2044	13						-	-	10,118,163			
88	2045	12						-	-	10,118,163			
89	2046	11						-	-	10,118,163			
90	2047	10						-	-	10,118,163			
91	2048	9						-	-	10,118,163			
92	2049	8						-	-	10,118,163			
93	2050	7						-	-	10,118,163			
94	2051	6						-	-	10,118,163			
95	2052	5						-	-	10,118,163			
96	2053	4						-	-	10,118,163			
97	2054	3						-	-	10,118,163			
98	2055	2						-	-	10,118,163			
99	2056	1						-	-	10,118,163			
100	2057	0						-	-	10,118,163			
										(10,118,163)	-		
										\$ -	\$ 10,471,810	\$ 32,082	\$ 548,798,696

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

\*\* From 2009 capital budget

#### Whole Life Depreciation Rate Calculation

Historical Additions	10,471,810
Forecast Additions	-
Total Additions	10,471,810
Gross Salvage Value	809,453
Less Cost of Removal	1,011,816
Net Salvage Value	(202,363)
Total to be Recovered	10,674,173
Forecast Plant Balances	548,798,696

Whole Life Accrual Rate	1.95%
Cost of Removal Accrual Rate	0.18%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.76%
Depreciable Service Life, years	51.4

#### Remaining Life Depreciation Rate Calculation

Account Balance 12/31/09	11,079,327
Forecast Additions	-
Gross Salvage Value	809,453
Less Cost of Removal	1,011,816
Net Salvage Value	(202,363)
Forecast Plant Balances	501,563,833

# APPENDIX

Schedule TJS-2

The Empire District Electric Company

Gross Salvage 8%  
 Cost of Removal 10%  
 Net Salvage -2%  
 Install Date 1964 Unit 9  
 Retirement Date 2018 Unit 9  
 Service Life, Yrs 54 Unit 9

## THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY

1988 Units 10, 11  
 2038 Units 10, 11  
 50 Units 10, 11

2007 Unit 12  
 2057 Unit 12  
 50 Unit 12

### Historical and Forecast Plant Additions & Balances

Accou 346 Misc Power Equipment

Initial Plant Balance

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]
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	1964	93	-	-	-	-	-	-	-	-	-	-
2	1965	92	-	-	-	-	-	-	-	-	-	-
3	1966	91	-	-	-	-	-	-	-	-	-	-
4	1967	90	15,348	-	-	-	-	-	15,348	-	-	15,348
5	1968	89	-	-	-	-	-	-	-	-	-	15,348
6	1969	88	-	-	-	-	-	-	-	-	-	15,348
7	1970	87	-	-	-	-	-	-	-	-	-	15,348
8	1971	86	-	-	-	-	-	-	-	-	-	15,348
9	1972	85	-	-	-	-	-	-	-	-	-	15,348
10	1973	84	466	-	-	-	-	-	466	-	-	15,814
11	1974	83	-	-	-	-	-	-	-	-	-	15,814
12	1975	82	-	-	-	-	-	-	-	-	-	15,814
13	1976	81	-	-	-	-	-	-	-	-	-	15,814
14	1977	80	-	-	-	-	-	-	-	-	-	15,814
15	1978	79	-	-	-	-	-	-	-	-	-	15,814
16	1979	78	-	-	-	-	-	-	-	-	-	15,814
17	1980	77	-	-	-	-	-	-	-	-	-	15,814
18	1981	76	-	-	-	-	-	-	-	-	-	15,814
19	1982	75	-	-	-	-	-	-	-	-	-	15,814
20	1983	74	-	-	-	-	-	-	-	-	-	15,814
21	1984	73	-	-	-	-	-	-	-	-	-	15,814
22	1985	72	-	-	-	-	-	-	-	-	-	15,814
23	1986	71	-	-	-	-	-	-	-	-	-	15,814
24	1987	70	-	-	-	-	-	-	-	-	-	15,814
25	1988	69	69,511	-	-	-	-	-	69,511	-	-	85,325
26	1989	68	-	-	-	-	-	-	-	-	-	85,325
27	1990	67	-	-	-	-	-	-	-	-	-	85,325
28	1991	66	-	-	-	-	-	-	-	-	-	85,325
29	1992	65	-	-	-	-	-	-	-	-	-	85,325
30	1993	64	-	-	-	-	-	-	-	-	-	85,325
31	1994	63	-	-	-	-	-	-	-	-	-	85,325
32	1995	62	-	-	-	-	-	-	-	-	-	85,325
33	1996	61	-	-	-	-	-	-	-	-	-	85,325
34	1997	60	-	-	-	-	-	-	-	-	-	85,325
35	1998	59	-	-	-	-	-	-	-	-	-	85,325
36	1999	58	-	-	-	-	-	-	-	-	-	85,325
37	2000	57	-	-	-	-	-	-	-	-	-	85,325
38	2001	56	-	-	-	-	-	-	-	-	-	85,325
39	2002	55	-	-	-	-	-	-	-	-	-	85,325
40	2003	54	-	-	-	-	-	-	-	-	-	85,325
41	2004	53	-	-	-	-	-	-	-	-	-	85,325
42	2005	52	-	-	-	-	-	-	-	-	-	85,325
43	2006	51	-	-	-	-	-	-	-	-	-	85,325
44	2007	50	1,484,186	-	-	-	-	-	1,484,186	-	-	1,569,511
45	2008	49	-	-	-	-	-	-	-	-	-	1,569,511
46	2009	48	-	-	-	-	741	-	741	-	-	1,570,252
47	Total		\$ 85,325	\$ 1,484,186	\$ -	\$ -	\$ 741	\$ -	\$ 1,570,252	\$ -	\$ -	\$ 6,659,747

48 Major Additions/Retirements  
 49 2007 \$ 1,484,186

50 Routine Activity \$ 741 \$ -  
 51 Historical Interim Activity 0.01% 0.00%  
 52 Forecast Interim Activity 0.00% 0.00%

# APPENDIX

Schedule TJS-2

<b>The Empire District Electric Company</b>	Gross Salvage	8%	<b>THE EMPIRE DISTRICT ELECTRIC COMPANY DEPRECIATION STUDY</b>		
	Cost of Removal	10%			
<b>Unit Property Depreciation Rate Analysis</b>	Net Salvage	-2%			
<b>Unit Property: Other Production, Riverton Combustion Turbines</b>	Install Date	1964 Unit 9	1988 Units 10, 11	2007 Unit 12	
	Retirement Date	2018 Unit 9	2038 Units 10, 11	2057 Unit 12	
	Service Life, Yrs	54 Unit 9	50 Units 10, 11	50 Unit 12	

**Historical and Forecast Plant Additions & Balances**

Accou 346 Misc Power Equipment Initial Plant Balance

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								
								Major Additions**				Major Retirements	
53	2010	47						-	-	1,570,252			
54	2011	46						-	-	1,570,252			
55	2012	45						-	-	1,570,252			
56	2013	44						-	-	1,570,252			
57	2014	43						-	-	1,570,252			
58	2015	42						-	-	1,570,252			
59	2016	41						-	-	1,570,252			
60	2017	40						-	-	1,570,252			
61	2018	39						-	-	1,554,438			
62	2019	38						-	-	1,554,438			
63	2020	37						-	-	1,554,438			
64	2021	36						-	-	1,554,438			
65	2022	35						-	-	1,554,438			
66	2023	34						-	-	1,554,438			
67	2024	33						-	-	1,554,438			
68	2025	32						-	-	1,554,438			
69	2026	31						-	-	1,554,438			
70	2027	30						-	-	1,554,438			
71	2028	29						-	-	1,554,438			
72	2029	28						-	-	1,554,438			
73	2030	27						-	-	1,554,438			
74	2031	26						-	-	1,554,438			
75	2032	25						-	-	1,554,438			
76	2033	24						-	-	1,554,438			
77	2034	23						-	-	1,554,438			
78	2035	22						-	-	1,554,438			
79	2036	21						-	-	1,554,438			
80	2037	20						-	-	1,554,438			
81	2038	19						-	-	1,484,927			
82	2039	18						-	-	1,484,927			
83	2040	17						-	-	1,484,927			
84	2041	16						-	-	1,484,927			
85	2042	15						-	-	1,484,927			
86	2043	14						-	-	1,484,927			
87	2044	13						-	-	1,484,927			
88	2045	12						-	-	1,484,927			
89	2046	11						-	-	1,484,927			
90	2047	10						-	-	1,484,927			
91	2048	9						-	-	1,484,927			
92	2049	8						-	-	1,484,927			
93	2050	7						-	-	1,484,927			
94	2051	6						-	-	1,484,927			
95	2052	5						-	-	1,484,927			
96	2053	4						-	-	1,484,927			
97	2054	3						-	-	1,484,927			
98	2055	2						-	-	1,484,927			
99	2056	1						-	-	1,484,927			
100	2057	0						-	-	1,484,927			
										(1,484,927)	-		
										\$ -	\$ 1,570,252	\$ -	\$ 78,524,136

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

\*\* From 2009 capital budget

**Whole Life Depreciation Rate Calculation**

Historical Additions	1,570,252
Forecast Additions	-
Total Additions	1,570,252
Gross Salvage Value	118,794
Less Cost of Removal	148,493
Net Salvage Value	(29,699)
Total to be Recovered	1,599,951

Forecast Plant Balances 78,524,136

Whole Life Accrual Rate	2.04%
Cost of Removal Accrual Rate	0.19%
Whole Life Accrual Rate (Excluding Cost of Removal)	1.85%

Depreciable Service Life, years 49.1

**Remaining Life Depreciation Rate Calculation**

Account Balance 12/31/09	1,570,252
Forecast Additions	-
Gross Salvage Value	118,794
Less Cost of Removal	148,493
Net Salvage Value	(29,699)

Forecast Plant Balances 71,864,389