

THE EMPIRE DISTRICT ELECTRIC COMPANY
DEPRECIATION STUDY

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%
Total		149,946,495	4.57% 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	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	Retirements							
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	\$ -	\$ 1,489,338,460
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			234,117,493
54	2016	14					114,000,000		546,040	1,346,623		236,218,421
55	2017	13						3,148,690	1,047,761			238,338,203
56	2018	12						3,176,945	1,057,164			240,477,007
57	2019	11						3,205,455	1,066,650			242,635,005
58	2020	10						3,234,220	1,076,222			244,812,368
59	2021	9						3,263,243	1,085,880			247,009,270
60	2022	8						3,292,527	1,095,625			249,225,887
61	2023	7						3,322,073	1,105,457			251,462,396
62	2024	6						3,351,885	1,115,377			253,718,974
63	2025	5						3,381,964	1,125,386			255,995,803
64	2026	4						3,412,314	1,135,485			258,293,063
65	2027	3						3,442,935	1,145,675			260,610,939
66	2028	2						3,473,831	1,155,956			262,949,614
67	2029	1						3,505,005	1,166,329			265,309,277
68	2030	0						3,536,458	1,176,795			-
										(265,309,277)		\$ 5,803,616,316
									\$ 132,876,913	\$ 159,037,641	\$ 25,258,654	

* 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				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	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		Adjusted Transaction Year		Transfers and Adjustments	End of Year Plant Balance*	
			Transaction Year		Vintage Year Retirements	Advance Additions	Advance Retirements	Additions	Retirements			
			Balance	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	-	-	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	-	-	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	-	-	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	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 Retirements	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	\$ 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

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

THE EMPIRE DISTRICT ELECTRIC COMPANY
 DEPRECIATION STUDY

	[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	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	Retirements	Advance Additions	Advance Retirements	Additions	Retirements		
			Balance	Additions								
1	1970	60	378,805	-	-	48,866	-	-	378,805	-	378,805	
2	1971	59	5,008	-	-	-	-	-	5,008	-	383,813	
3	1972	58	6,698	-	-	2,595	-	-	6,698	-	390,511	
4	1973	57	9,550	-	-	4,094	-	-	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	-	-	15,503	-	-	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	-	-	1,582	-	-	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	-	-	20,000	-	-	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
 Historical and Forecast Plant Additions & Balances
 Accou 316 Miscellaneous Plant Equipment

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

THE EMPIRE DISTRICT ELECTRIC COMPANY
 DEPRECIATION STUDY

	[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