

**MISSOURI PUBLIC SERVICE COMMISSION**

**STAFF REPORT  
COST OF SERVICE**

**APPENDIX 3  
Testimony Schedules**

**THE EMPIRE DISTRICT ELECTRIC COMPANY**

**FILE NO. ER-2011-0004**

*Jefferson City, Missouri  
February 2011*

**NP**

**SCHEDULE HEW-1**

**HAS BEEN DEEMED**

**HIGHLY CONFIDENTIAL**

**IN ITS ENTIRETY**

**The Empire District Electric Company  
File No. ER-2011-0004**

**The Empire District Electric Company  
Staff Recommended Annual Depreciation Rates**

A	B	C	D	E	F	G	H	I
Account Number	Description	Ordered Staff ASL Years	Ordered Rates ER-2004-0570 Depreciation Rate %	Staff's Study ASL Years	Staff's Study ER-2011-0004 Depreciation Rate %	Plant in Service From Study Data	Ordered Annual Accrual D*G	Staff's Study Annual Accrual F*G
<b>STEAM PRODUCTION PLANT</b>								
311*	Structures and Improvements	95	1.06%	95	1.13%	29,337,591	310,978	331,777
312*	Boiler Plant Equipment	54	1.89%	54	2.04%	241,799,509	4,570,011	4,935,575
314*	Turbogenerator Units	63	1.60%	63	1.70%	38,890,605	622,250	659,225
315*	Accessory Electric Equipment	56	1.80%	56	1.96%	14,381,936	258,875	282,350
316*	Miscellaneous Power Plant Equipment	51	1.97%	51	2.19%	5,200,659	102,453	113,654
<b>HYDRAULIC PRODUCTION PLANT</b>								
331	Structures and Improvements	61	1.66%	94	1.11%	677,919	11,240	7,536
332	Reservoirs, Dams and Waterways	60	1.67%	88	1.16%	1,518,256	25,304	17,684
333	Waterwheels, Turbines and Generators	68	1.47%	93	1.16%	1,619,458	23,816	18,807
334	Accessory Electric Equipment	70	1.44%	78	1.35%	1,237,540	17,881	16,659
335	Miscellaneous Power Plant Equipment	41	2.44%	41	2.65%	456,214	11,127	12,073
<b>OTHER PRODUCTION PLANT</b>								
341	Structures and Improvements	55	1.82%	55	1.85%	15,302,876	278,234	282,892
342	Fuel Holders, Producers and Access.	26	3.85%	26	3.92%	10,039,848	386,148	393,705
343	Prime Movers	52	1.92%	52	1.84%	229,349,951	4,412,781	4,216,127
344	Generators	55	1.82%	55	1.74%	101,441,151	1,844,385	1,767,950
345	Accessory Electric Equipment	28	3.57%	28	3.63%	29,763,295	1,062,975	1,081,269
346	Miscellaneous Power Plant Equipment	25	4.00%	25	4.08%	18,427,426	736,802	751,520
<b>TRANSMISSION PLANT</b>								
352	Structures & Improvements	55	2.09%	55	2.09%	2,878,240	60,181	60,181
353	Station Equipment	50	2.20%	50	2.20%	90,149,111	1,983,280	1,983,280
354	Towers & Fixtures	65	1.92%	65	1.92%	799,508	15,375	15,375
355	Poles & Fixtures	60	3.33%	60	3.33%	38,258,187	1,275,273	1,275,273
356	Overhead Conductors	65	2.15%	61	2.30%	60,275,756	1,298,247	1,383,378
<b>DISTRIBUTION PLANT</b>								
361	Structures & Improvements	60	2.08%	61	2.05%	9,622,630	200,471	197,185
362	Station Equipment	45	1.89%	45	1.89%	77,775,913	1,469,101	1,469,101
364	Poles, Towers & Fixtures	46	4.35%	46	4.35%	123,228,049	5,357,741	5,357,741
365	Overhead Conductors	53	3.77%	55	3.64%	132,725,225	5,008,499	4,826,372
366	Underground Conduit	37	3.92%	50	2.90%	28,358,461	1,111,345	822,395
367	Underground Conductors	32	3.59%	48	2.40%	50,209,258	1,804,395	1,202,930
368	Transformers	45	2.78%	48	2.60%	89,929,820	2,498,051	2,341,922
369	Services	40	5.00%	46	4.35%	64,939,322	3,246,966	2,823,449
370	Meters	44	2.27%	44	2.27%	18,263,638	415,083	415,083
371	Meter Installations	25	5.80%	28	5.18%	14,801,186	858,469	766,490
373	Street Lighting	48	3.13%	47	3.19%	13,703,027	428,220	437,331
<b>GENERAL PLANT</b>								
390	Structures & Improvements	40	2.75%	33	3.33%	9,298,419	255,707	309,947
391.1	Office Furniture and Equipment	20	5.00%	18	5.56%	6,096,229	304,811	338,679
391.2	Computer Equipment	10	10.00%	10	10.00%		0	0
392	Transportation Equipment	12	7.08%	12	7.08%	7,460,009	528,417	528,417
393	Stores Equipment	30	3.17%	32	2.97%	433,720	13,734	12,876
394	Tools, Shop & Garage Equipment	20	4.50%	20	4.50%	3,756,362	169,036	169,036
395	Laboratory Equipment	38	2.63%	46	2.17%	953,640	25,096	20,731
396	Power Operated Equipment	15	6.33%	16	5.94%	11,554,252	731,769	686,034
397	Communication Equipment	25	4.00%	26	3.85%	13,906,247	556,250	534,856
398	Miscellaneous Equipment	22	4.55%	31	3.23%	231,158	10,507	7,457

\*Note: Values for Iatan 2 and Plum point in service are not included

44,301,285 42,874,324

**The Empire District Electric Company  
File No. ER-2011-0004**

**The Empire District Electric Company  
Previously Ordered Versus Staff Recommended Depreciation Rates**

Account Number	Account Description	Currently Ordered Whole Life Depreciation Rate	Staff's Study Whole Life Depreciation Rate	Recommended Whole Life Depreciation Rate
<b>STEAM PRODUCTION PLANT</b>				
311	Structures and Improvements	1.06%	1.13%	1.06%
312	Boiler Plant Equipment	1.89%	2.04%	1.89%
314	Turbogenerator Units	1.60%	1.70%	1.60%
315	Accessory Electric Equipment	1.80%	1.96%	1.80%
316	Miscellaneous Power Plant Equipment	1.97%	2.19%	1.97%
<b>HYDRAULIC PRODUCTION PLANT</b>				
331	Structures and Improvements	1.66%	1.11%	1.66%
332	Reservoirs, Dams and Waterways	1.67%	1.16%	1.67%
333	Waterwheels, Turbines and Generators	1.47%	1.16%	1.47%
334	Accessory Electric Equipment	1.44%	1.35%	1.44%
335	Miscellaneous Power Plant Equipment	2.44%	2.65%	2.44%
<b>OTHER PRODUCTION PLANT</b>				
341	Structures and Improvements	1.82%	1.85%	1.82%
342	Fuel Holders, Producers and Access.	3.85%	3.92%	3.85%
343	Prime Movers	1.92%	1.84%	1.92%
344	Generators	1.82%	1.74%	1.82%
345	Accessory Electric Equipment	3.57%	3.63%	3.57%
346	Miscellaneous Power Plant Equipment	4.00%	4.08%	4.00%
<b>TRANSMISSION PLANT</b>				
352	Structures & Improvements	2.09%	2.09%	2.09%
353	Station Equipment	2.20%	2.20%	2.20%
354	Towers & Fixtures	1.92%	1.92%	1.92%
355	Poles & Fixtures	3.33%	3.33%	3.33%
356	Overhead Conductors	2.15%	2.30%	2.15%
<b>DISTRIBUTION PLANT</b>				
361	Structures & Improvements	2.08%	2.05%	2.08%
362	Station Equipment	1.89%	1.89%	1.89%
364	Poles, Towers & Fixtures	4.35%	4.35%	4.35%
365	Overhead Conductors	3.77%	3.64%	3.77%
366	Underground Conduit	3.92%	2.90%	3.92%
367	Underground Conductors	3.59%	2.40%	3.59%
368	Transformers	2.78%	2.60%	2.78%
369	Services	5.00%	4.35%	5.00%
370	Meters	2.27%	2.27%	2.27%
371	Meter Installations	5.80%	5.18%	5.80%
373	Street Lighting	3.13%	3.19%	3.13%
<b>GENERAL PLANT</b>				
390	Structures & Improvements	2.75%	3.33%	2.75%
391.1	Office Furniture and Equipment	5.00%	5.56%	5.00%
391.2	Computer Equipment	10.00%	10.00%	10.00%
392	Transportation Equipment	7.08%	7.08%	7.08%
393	Stores Equipment	3.17%	2.97%	3.17%
394	Tools, Shop & Garage Equipment	4.50%	4.50%	4.50%
395	Laboratory Equipment	2.63%	2.17%	2.63%
396	Power Operated Equipment	6.33%	5.94%	6.33%
397	Communication Equipment	4.00%	3.85%	4.00%
398	Miscellaneous Equipment	4.55%	3.23%	4.55%

**The Empire District Electric Company  
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**The Empire District Electric Company  
Staff Recommended Annual Depreciation Rates for Iatan 2**

Account Number	Account Description	Iatan 2 Remaining Life Depreciation Rate (%)	Iatan 2 Average Service Life (Years)	Iatan 2 Iowa Curve	Iatan 2 Net Salvage
<b>STEAM PRODUCTION PLANT</b>					
311.6	Iatan 2 Structures and Improvements	1.77%	60	R2	-0.10%
312.6	Iatan 2 Boiler Plant Equipment	1.77%	60	R2	-0.10%
314.6	Iatan 2 Turbogenerator Units	1.77%	60	R2	-0.10%
315.6	Iatan 2 Accessory Electric Equipment	1.77%	60	R2	-0.10%
316.6	Iatan 2 Miscellaneous Power Plant Equipment	1.77%	60	R2	-0.10%

**The Empire District Electric Company  
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**The Empire District Electric Company  
Staff Recommended Annual Depreciation Rates**

A	B	C	D	E	F
			As Of December 31, 2009		
			Theoretical	Actual	D-E Theoretical Less Actual
Account Number	Account Description	Plant In Service	Reserve Accrual	Reserve Accrual	Difference
<b>STEAM PRODUCTION PLANT</b>					
311	Structures and Improvements	29,337,591	5,260,453	11,958,583	(6,698,130)
312	Boiler Plant Equipment	241,799,509	47,906,600	73,615,051	(25,708,451)
314	Turbogenerator Units	38,890,605	13,119,059	13,009,221	109,838
315	Accessory Electric Equipment	14,381,936	3,697,340	4,437,632	(740,292)
316	Miscellaneous Power Plant Equipment	5,200,659	1,369,133	2,151,830	(782,697)
<b>HYDRAULIC PRODUCTION PLANT</b>					
331	Structures and Improvements	677,919	175,306	305,869	(130,563)
332	Reservoirs, Dams and Waterways	1,518,256	1,025,219	685,180	340,039
333	Waterwheels, Turbines and Generators	1,619,458	335,111	730,852	(395,741)
334	Accessory Electric Equipment	1,237,540	177,328	558,514	(381,186)
335	Miscellaneous Power Plant Equipment	456,214	138,920	205,887	(66,967)
<b>OTHER PRODUCTION PLANT</b>					
341	Structures and Improvements	15,302,876	2,817,065	3,967,627	(1,150,562)
342	Fuel Holders, Producers and Access.	10,039,848	4,827,741	3,352,551	1,475,190
343	Prime Movers	229,349,951	26,526,287	56,991,127	(30,464,840)
344	Generators	101,441,151	16,366,247	13,854,678	2,511,569
345	Accessory Electric Equipment	29,763,295	5,254,136	6,969,598	(1,715,462)
346	Miscellaneous Power Plant Equipment	18,427,426	5,723,653	2,357,825	3,365,828
<b>TRANSMISSION PLANT</b>					
352	Structures & Improvements	2,878,240	790,559	1,116,705	(326,146)
353	Station Equipment	90,149,111	27,574,639	33,370,653	(5,796,014)
354	Towers & Fixtures	799,508	541,690	772,934	(231,244)
355	Poles & Fixtures	38,258,187	17,039,642	15,828,439	1,211,203
356	Overhead Conductors	60,275,756	20,201,950	18,389,391	1,812,559
<b>DISTRIBUTION PLANT</b>					
361	Structures & Improvements	9,622,630	3,384,741	3,743,037	(358,296)
362	Station Equipment	77,775,913	16,177,656	27,212,036	(11,034,380)
364	Poles, Towers & Fixtures	123,228,049	73,694,414	62,395,624	11,298,790
365	Overhead Conductors	132,725,225	66,934,006	51,546,185	15,387,821
366	Underground Conduit	28,358,461	9,548,958	9,335,602	213,356
367	Underground Conductors	50,209,258	11,697,916	19,089,710	(7,391,794)
368	Transformers	89,929,820	28,275,569	30,719,356	(2,443,787)
369	Services	64,939,322	39,208,386	33,344,987	5,863,399
370	Meters	18,263,638	4,107,233	6,232,010	(2,124,777)
371	Meter Installations	14,801,186	6,178,563	9,252,140	(3,073,577)
373	Street Lighting	13,703,027	3,787,962	5,132,435	(1,344,473)
<b>GENERAL PLANT</b>					
390	Structures & Improvements	9,298,419	3,296,021	5,944,294	(2,648,273)
391.1	Office Furniture and Equipment	6,096,229	1,775,672	8,024,379	(6,248,707)
391.2	Computer Equipment				
392	Transportation Equipment	7,460,009	2,682,705	6,776,560	(4,093,855)
393	Stores Equipment	433,720	192,895	293,685	(100,790)
394	Tools, Shop & Garage Equipment	3,756,362	1,681,705	2,246,913	(565,208)
395	Laboratory Equipment	953,640	471,347	690,181	(218,834)
396	Power Operated Equipment	11,554,252	5,339,302	7,229,509	(1,890,207)
397	Communication Equipment	13,906,247	7,369,188	4,930,474	2,438,714
398	Miscellaneous Equipment	231,158	92,209	127,270	(35,061)
<b>Totals</b>		1,609,051,599	486,764,526	558,896,534	(72,132,008)

**The Empire District Electric Company  
File No. ER-2011-0004**

**The Empire District Electric Company  
Staff Recommended Annual Depreciation Rates**

Account Number	Account Description	Ordered Whole Life Depreciation Rate (%)	Ordered Average Service Life (Years)	lowa Curve	Ordered Net Salvage
<b>STEAM PRODUCTION PLANT</b>					
311	Structures and Improvements	1.06%	95	R2	-0.95%
312	Boiler Plant Equipment	1.89%	54	R2	-2.16%
314	Turbogenerator Units	1.60%	63	R2	-0.63%
315	Accessory Electric Equipment	1.80%	56	R2	-0.56%
316	Miscellaneous Power Plant Equipment	1.97%	51	R2	-0.51%
<b>HYDRAULIC PRODUCTION PLANT</b>					
331	Structures and Improvements	1.66%	61	L1	-1.14%
332	Reservoirs, Dams and Waterways	1.67%	60	R1	0.00%
333	Waterwheels, Turbines and Generators	1.47%	68	R2	0.00%
334	Accessory Electric Equipment	1.44%	70	L1.5	-1.14%
335	Miscellaneous Power Plant Equipment	2.44%	41	R2	0.00%
<b>OTHER PRODUCTION PLANT</b>					
341	Structures and Improvements	1.82%	55	R2	0.00%
342	Fuel Holders, Producers and Access.	3.85%	26	R2	0.00%
343	Prime Movers	1.92%	52	R0.5	0.00%
344	Generators	1.82%	55	R2	0.00%
345	Accessory Electric Equipment	3.57%	28	R2	0.00%
346	Miscellaneous Power Plant Equipment	4.00%	25	R2	-0.25%
<b>TRANSMISSION PLANT</b>					
352	Structures & Improvements	2.09%	55	R2	-15.00%
353	Station Equipment	2.20%	50	R2.5	-10.00%
354	Towers & Fixtures	1.92%	65	R2	-25.00%
355	Poles & Fixtures	3.33%	60	L2.5	-100.00%
356	Overhead Conductors	2.15%	65	R2.5	-40.00%
<b>DISTRIBUTION PLANT</b>					
361	Structures & Improvements	2.08%	60	R2	-25.00%
362	Station Equipment	1.89%	45	R1.5	15.00%
364	Poles, Towers & Fixtures	4.35%	46	L4	-100.00%
365	Overhead Conductors	3.77%	53	R2.5	-100.00%
366	Underground Conduit	3.92%	37	R2.5	-45.00%
367	Underground Conductors	3.59%	32	R0.5	-15.00%
368	Transformers	2.78%	45	L1.5	-25.00%
369	Services	5.00%	40	R3	-100.00%
370	Meters	2.27%	44	L0.5	0.00%
371	Meter Installations	5.80%	25	R0.5	-45.00%
373	Street Lighting	3.13%	48	R0.5	-50.00%
<b>GENERAL PLANT</b>					
390	Structures & Improvements	2.75%	40	R0.5	-10.00%
391.1	Office Furniture and Equipment	5.00%	20	R0.5	0.00%
391.2	Computer Equipment	10.00%	10	R0.5	0.00%
392	Transportation Equipment	7.08%	12	R1.5	15.00%
393	Stores Equipment	3.17%	30	R2.5	5.00%
394	Tools, Shop & Garage Equipment	4.50%	20	R2	10.00%
395	Laboratory Equipment	2.63%	38	R3	0.00%
396	Power Operated Equipment	6.33%	15	R2	5.00%
397	Communication Equipment	4.00%	25	R2	0.00%
398	Miscellaneous Equipment	4.55%	22	L1	0.00%

**SCHEDULE JAR-1**

**HAS BEEN DEEMED**

**HIGHLY CONFIDENTIAL**

**IN ITS ENTIRETY**