

Exhibit No.  
Issue: Regulatory Amortization  
Witness: Robert W. Sager  
Type of Exhibit: Rebuttal Testimony  
Sponsoring Party: Empire District Electric  
Case No. ER-2010-0130  
Date Testimony Prepared: April 2010

**Before the Public Service Commission  
of the State of Missouri**

**Rebuttal Testimony**

**of**

**Robert W. Sager**

**April 2010**

REBUTTAL TESTIMONY  
OF  
ROBERT W. SAGER  
THE EMPIRE DISTRICT ELECTRIC COMPANY  
BEFORE THE  
MISSOURI PUBLIC SERVICE COMMISSION  
CASE NO. ER-2010-0130

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

2 A. Robert W. Sager, 602 South Joplin Avenue, Joplin, Missouri 64801.

3 **Q. ARE YOU THE SAME ROBERT W. SAGER THAT PRESENTED DIRECT**  
4 **TESTIMONY PREVIOUSLY FILED IN THIS CASE?**

5 A. Yes I am.

6 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

7 A. My rebuttal testimony will respond to the methodology used by the Staff of the  
8 Missouri Public Service Commission ("Staff") to calculate the Regulatory Plan  
9 Amortization ("RPA") in this case.

10 **Q. WHAT IS YOUR UNDERSTANDING OF THE REGULATORY PLAN**  
11 **AMORTIZATION?**

12 A. The purpose of the RPA provisions agreed to in Case No. EO-2005-0263 is to  
13 determine whether rate relief calculated for The Empire District Electric Company  
14 ("Empire" or "Company") under traditional methods must be supplemented to  
15 enable Empire to maintain its investment grade rating, although the amortization and  
16 its effect on the Company's financial ratios by itself does not guarantee that  
17 Empire's ratings will be assigned an investment grade.

1 **Q. IS THE STAFF'S CALCULATION CONSISTENT WITH THE**  
2 **CALCULATION USED IN EMPIRE'S PREVIOUS ELECTRIC RATE**  
3 **CASES?**

4 A. It appears that the Staff has utilized a methodology that is generally consistent with  
5 the RPA calculation used in the previous Empire electric rate cases, such as Case  
6 No. ER-2008-0093, although Empire suggests certain modifications. In addition,  
7 Empire expects that the final RPA numbers included in the pending case will be  
8 updated nearer the conclusion of the case.

9 **Q. PLEASE DESCRIBE THE MODIFICATIONS TO THE RPA**  
10 **CALCULATION USED BY THE STAFF THAT YOU BELIEVE SHOULD**  
11 **BE MADE FOR THIS CASE.**

12 A. Based on recent discussions with our Standard & Poors ("S&P") analyst, I propose  
13 that the calculations be modified for purposes of imputing debt and depreciation  
14 related to our Purchased Power Agreements ("PPA"). These new calculations have  
15 been submitted to Staff in response to Data Request 204. The calculations are  
16 attached hereto as Rebuttal Schedule RWS-1.

17 **Q. PLEASE EXPLAIN THE REASONS FOR THE MODIFICATIONS.**

18 A. Empire's PPAs for the Elk River and Meridian Way windfarms provide for energy  
19 charges only and do not contain a capacity charge. As a result, Empire's S&P analyst  
20 indicated, during a phone conversation on March 22, 2010, that S&P would typically  
21 reduce the expected cash payments under each agreement by 50% is an attempt to  
22 estimate a capacity charge for purposes of their ratio calculations. The "proxy  
23 capacity charge" would then run through the remaining calculations as has been

1 done previously. The remaining calculation requires applying a net present value  
2 calculation and a risk factor in order to determine the imputed debt for purposes of  
3 the ratio. The 50% reduction, which is intended to estimate the capacity charge, was  
4 not used in previous RPA calculations.

5 **Q. ARE YOU PROPOSING FURTHER CHANGES TO THE STAFF'S RPA**  
6 **CALCULATION?**

7 A. Yes. Additional communications I had with our S&P analyst revealed the risk factor  
8 our S&P analyst intends to use for purposes of imputing debt on all PPAs will be  
9 50% going forward. Previously, Empire had estimated 30% for purposes of imputing  
10 debt on all PPAs, and the original information Empire submitted under a data request  
11 to Staff in this case utilized 30% as well. The 50% risk factor should also be used in  
12 determining Empire's imputed depreciation for purposes of the ratio calculations.

13 **Q. DID S&P INDICATE WHY IT PREFERRED TO USE 50%?**

14 A. Yes. Our S&P analyst indicated that it is normal for S&P to use a 50% risk factor on  
15 PPAs when capacity charges are not included in fuel adjustment clause mechanisms.  
16 Even though Empire's capacity charges are presently included in base rates, our S&P  
17 analyst indicated the 50% risk factor was automatic based on that set of  
18 circumstances.

19 **Q. DOES EMPIRE'S REGULATORY PLAN REQUIRE USING S&P**  
20 **METHODS FOR CALCULATING THE RPA RATIOS?**

21 A. No, the Regulatory Plan does not require using S&P methods, in part because the  
22 parties do not have access to the actual models used by S&P. However, I believe it is  
23 quite clear the Regulatory Plan intended to mirror the S&P ratios as best as they can

1 be determined. It would be inappropriate to omit known metrics used by S&P when  
2 determining the level of Regulatory Amortization, because one of the main purposes  
3 of the Regulatory Plan is to enable Empire to maintain certain financial metrics  
4 utilized in the rating process.


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

6 A. Yes, it does.

**AFFIDAVIT OF ROBERT W. SAGER**

STATE OF MISSOURI )  
                                  ) ss  
COUNTY OF JASPER )

On the 31 day of March, 2010, before me appeared Robert W. Sager, to me personally known, who, being by me first duly sworn, states that he is the Director of Financial Services of The Empire District Electric Company and acknowledges that he has read the above and foregoing document and believes that the statements therein are true and correct to the best of his information, knowledge and belief.

  
\_\_\_\_\_  
Robert W. Sager

Subscribed and sworn to before me this 31 day of March, 2010.

  
\_\_\_\_\_  
Notary Public

My commission expires: 10-30-10.

VICKI L. KRAMER-GIBSON Notary Public - Notary Seal STATE OF MISSOURI Jasper County - Comm#06482169 My Commission Expires Oct. 30, 2010
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**PURCHASED POWER DEBT EQUIVALENT - PLUM POINT**  
Starting August 1, 2010

Year	Jan-May 5 Mons MW	Jan-May 5 Mons KW	Jun-Dec 7 Mons Month	Jan-May 5 Mons Monthly \$	Jun-Dec 7 Mons Monthly \$	Annual \$	6.80% Discount NPV	50% Imputed Debt by Year	6.80% Interest Exp	Depreciation @ 50%
2004						0				
2005						0				
2006						0				
2007						0				
2008						0				
2009						0				
2010	50	-	15.10	3,775,000	3,775,000	3,775,000	35,023,521		2,381,599	1,393,401
2011	50	15.10	15.40	5,390,700	5,390,700	9,165,700	28,239,420		1,920,281	7,245,419
2012	50	15.40	15.71	3,850,500	5,498,514	9,349,014	20,810,687		1,415,127	7,933,887
2013	50	15.71	16.02	3,927,510	5,608,484	9,535,994	12,689,819		862,908	8,673,087
2014	50	16.02	16.34	4,006,060	5,720,654	9,726,714	3,826,013		260,169	9,466,545
2015	50	16.34	16.67	4,086,181	-	4,086,181			0	4,086,181

Total NPV and Imputed debt for S&P	6.80% Discount NPV	50% Imputed Debt by Year	Interest exp on the 50%
2006		0	
2007		0	
2008		0	
2009		0	
2010	35,023,521	17,511,760	1,190,800
2011	31,631,470	15,815,735	1,075,470
2012	24,525,053	12,262,527	833,852
2013	16,750,253	8,375,126	569,509
2014	8,257,916	4,128,958	280,769

**PURCHASED POWER DEBT EQUIVALENT  
ELK RIVER WIND FARM**

Year	Annual \$	50% Implied capacity charge	6.8% Discount NPV	50% Imputed Debt by Year	6.80% Interest exp	Depreciation	Depreciation @ 50%
2003	0						
2004	0						
2005	0						
2006	13,769,078	6,884,539	85,474,483				
2007	13,769,078	6,884,539	84,402,209		5,739,350	1,145,189	554,366
2008	14,996,025	7,498,013	82,643,547		5,619,761	1,878,251	909,228
2009	14,996,025	7,498,013	80,765,295		5,492,040	2,005,972	971,056
2010	14,996,025	7,498,013	78,759,323		5,355,634	2,142,379	1,037,088
2011	15,912,146	7,956,073	76,158,884		5,178,804	2,777,269	1,344,427
2012	15,912,146	7,956,073	73,381,615		4,989,950	2,966,123	1,435,848
2013	15,912,146	7,956,073	70,415,492		4,788,253	3,167,819	1,533,486
2014	16,888,251	8,444,125	66,759,620		4,539,654	3,904,471	1,890,086
2015	16,888,251	8,444,125	62,855,149		4,274,150	4,169,975	2,018,612
2016	16,888,251	8,444,125	58,685,174		3,990,592	4,453,534	2,155,877
2017	17,400,842	8,700,421	53,975,345		3,670,323	5,030,098	2,434,982
2018	17,400,842	8,700,421	48,945,247		3,328,277	5,372,144	2,600,560
2019	17,400,842	8,700,421	43,573,103		2,962,971	5,737,450	2,777,399
2020	17,924,340	8,962,170	37,573,904		2,555,025	6,407,144	3,101,586
2021	17,924,340	8,962,170	31,166,760		2,119,340	6,842,830	3,312,494
2022	17,924,340	8,962,170	24,323,929		1,654,027	7,308,143	3,537,743
2023	18,469,650	9,234,825	16,743,132		1,138,533	8,096,292	3,919,272
2024	18,469,650	9,234,825	8,646,840		587,985	8,646,840	4,185,783
2025	18,469,650	9,234,825			0	9,234,825	4,470,416

Total NPV and Imputed debt for S&P	6.8% Discount NPV	50% Imputed Debt by Year	Interest exp on the 50%
2006	42,737,241	21,368,621	
2007	84,938,346	42,469,173	2,887,904
2008	83,522,878	41,761,439	2,839,778
2009	81,704,421	40,852,211	2,777,950
2010	79,762,309	39,881,155	2,711,919
2011	77,459,103	38,729,552	2,633,610
2012	74,770,250	37,385,125	2,542,188
2013	71,898,554	35,949,277	2,444,551
2014	68,587,556	34,293,778	2,331,977
2015	64,807,385	32,403,692	2,203,451
2016	60,770,161	30,385,081	2,066,185
2017	56,330,259	28,165,130	1,915,229
2018	51,460,296	25,730,148	1,749,650
2019	46,259,175	23,129,587	1,572,812
2020	40,573,503	20,286,752	1,379,499
2021	34,370,332	17,185,166	1,168,591
2022	27,745,344	13,872,672	943,342
2023	20,533,530	10,266,765	698,140
2024	12,694,986	6,347,493	431,630
2025	4,323,420	2,161,710	146,996



**PURCHASED POWER DEBT EQUIVALENT  
MERIDIAN WAY WIND FARM (2009)**

Year	Annual \$	50% Implied capacity charge	6.8% Discount NPV	50% Imputed Debt by Year	6.80% Interest exp	Depreciation	Depreciation @ 50%
2003	0						
2004	0						
2005	0						
2006	0						
2007	0		76,032,583				
2008	0		76,032,583				
2009	13,918,414	6,959,207	74,243,591		5,048,564	1,910,643	955,321
2010	13,918,414	6,959,207	72,332,949		4,918,641	2,040,566	987,802
2011	13,918,414	6,959,207	70,292,382		4,779,882	2,179,325	1,054,973
2012	13,918,414	6,959,207	68,113,058		4,631,688	2,327,519	1,126,711
2013	13,918,414	6,959,207	65,785,539		4,473,417	2,485,790	1,203,327
2014	13,918,414	6,959,207	63,299,749		4,304,383	2,654,824	1,285,154
2015	13,918,414	6,959,207	60,644,925		4,123,855	2,835,352	1,372,544
2016	13,918,414	6,959,207	57,809,573		3,931,051	3,028,156	1,465,877
2017	13,918,414	6,959,207	54,781,417		3,725,136	3,234,070	1,565,557
2018	13,918,414	6,959,207	51,547,347		3,505,220	3,453,987	1,672,014
2019	14,542,958	7,271,479	47,781,087		3,249,114	4,022,365	1,947,156
2020	14,542,958	7,271,479	43,758,722		2,975,593	4,295,886	2,079,563
2021	14,542,958	7,271,479	39,462,836		2,683,473	4,588,006	2,220,973
2022	14,542,958	7,271,479	34,874,830		2,371,488	4,899,990	2,371,999
2023	14,542,958	7,271,479	29,974,840		2,038,289	5,233,190	2,533,295
2024	14,542,958	7,271,479	24,741,650		1,682,432	5,589,047	2,705,559
2025	14,542,958	7,271,479	19,152,603		1,302,377	5,969,102	2,889,537
2026	14,542,958	7,271,479	13,183,502		896,478	6,375,001	3,086,026
2027	14,542,958	7,271,479	6,808,501		462,978	6,808,501	3,295,875
2028	14,542,958	7,271,479			0	7,271,479	3,519,995

Total NPV and Imputed debt for S&P	6.8% Discount NPV	50% Imputed Debt by Year	Interest exp on the 50%
2006		0	
2007	76,032,583	38,016,291	2,585,108
2008	76,032,583	38,016,291	2,585,108
2009	74,243,591	37,121,796	2,524,282
2010	73,288,270	36,644,135	2,491,801
2011	71,312,666	35,656,333	2,424,631
2012	69,202,720	34,601,360	2,352,892
2013	66,949,298	33,474,649	2,276,276
2014	64,542,644	32,271,322	2,194,450
2015	61,972,337	30,986,168	2,107,059
2016	59,227,249	29,613,624	2,013,726
2017	56,295,495	28,147,747	1,914,047
2018	53,164,382	26,582,191	1,807,589
2019	49,664,217	24,832,108	1,688,583
2020	45,769,905	22,884,952	1,556,177
2021	41,610,779	20,805,390	1,414,766
2022	37,168,833	18,584,417	1,263,740
2023	32,424,835	16,212,418	1,102,444
2024	27,358,245	13,679,123	930,180
2025	21,947,127	10,973,563	746,202
2026	16,168,053	8,084,026	549,714
2027	9,996,001	4,998,001	339,864
2028	3,404,250	1,702,125	115,745

Notes: \$39 first 10 years, \$40.75 years 10-20

# EMPIRE DISTRICT ELECTRIC COMPANY

## Purchased Power Debt Equivalent

	<b>NPV</b>	<b>IMPUTED DEBT 50%</b>	<b>Depreciation</b>	<b>Depreciation @ 50%</b>
<b>2008</b>	187,543,595	93,771,797	16,638,473	8,054,392
<b>2009</b>	169,645,820	84,822,910	19,680,532	9,557,412
<b>2010</b>	191,232,948	95,616,474	12,323,645	5,987,839
<b>2011</b>	180,403,239	90,201,620	12,202,013	5,906,780
<b>2012</b>	168,498,023	84,249,011	13,227,529	6,403,214
<b>2013</b>	155,598,105	77,799,052	14,326,696	6,935,301
<b>2014</b>	141,388,116	70,694,058	16,025,840	7,757,827