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Depreciation John F. Wiedmayer Union Electric Company Surrebuttal Testimony ER-2007-0002 February 27, 2007

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2007-0002

SURREBUTTAL TESTIMONY

OF

JOHN F. WIEDMAYER C.D.P.

ON

BEHALF OF

UNION ELECTRIC COMPANY d/b/a AmerenUE

> St. Louis, Missouri February, 2007

7002 Ameren UE Exhibit No. Case No(\$).____

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1		SURREBUTTAL TESTIMONY
2		OF
3		JOHN F. WIEDMAYER
4		I. <u>INTRODUCTION</u>
5	Q.	Please state your name and address.
6	А.	John F. Wiedmayer. My business address is 1010 Adams Avenue, Audubon,
7	Pennsylvania	. 19403.
8	Q.	Have you previously submitted testimony in this proceeding?
9	Α.	Yes. My Direct Testimony was submitted in July 2006 and my Rebuttal
10	Testimony w	as submitted in January 2007.
11	Q.	What is the purpose of your Surrebuttal Testimony?
12	А.	My testimony responds to the Rebuttal Testimony of Missouri Public Service
13	Commission	Staff (Staff) witness Guy C. Gilbert, the Rebuttal Testimony of Missouri
14	Industrial Er	ergy Consumers (MIEC) witness James T. Selecky, and the Rebuttal Testimony
15	of Office of	the Public Counsel (OPC) witness William Dunkel.
16	Q.	What are the subjects of your Surrebuttal Testimony?
17	Α.	The subjects of my Surrebuttal Testimony are the net salvage estimates for the
18	Callaway Ni	clear Plant, the remaining lives for the Callaway Nuclear Plant determined by
19	Mr. Selecky	, and the calculation of the portion of the depreciation accrual related to net
20	salvage.	
21	П.	NET SALVAGE ESTIMATES FOR CALLAWAY NUCLEAR PLANT
22	Q.	Have you reviewed the Rebuttal Testimony of OPC Witness Dunkel?
23	А.	Yes, I have.

Has he proposed any adjustments regarding the net salvage estimates for 1 Q. 2 the Callaway Nuclear Plant? 3 A. Yes. Mr. Dunkel has proposed reducing Staff's negative net salvage estimates 4 which have the effect of lowering the depreciation accrual rates that he and Staff have 5 proposed. 6 О. Please describe his proposed adjustments regarding the net salvage 7 estimates for Callaway? 8 A. Mr. Dunkel has correctly determined that the depreciation rates should only 9 reflect interim net salvage. Mr. Dunkel has adjusted his and Staff's proposed depreciation 10 rates for Callaway to reflect an accrual for interim net salvage at Callaway. Interim net 11 salvage refers to the net salvage related to assets that are retired throughout a power plant's 12 life, excluding final retirement which occurs at the end of the nuclear plant's operation. 13 Since the Company already has a separate cost recovery mechanism for final net salvage in 14 the form of a nuclear decommissioning cost trust fund, no depreciation accruals for final net 15 salvage are necessary at a nuclear plant. 16 Mr. Dunkel has determined the amount of interim retirements that will occur 17 based on Staff's proposed interim survivor curve estimate and 10/2044 final retirement date. 18 Using Account 322, Reactor Plant Equipment as an example to illustrate his proposed 19 adjustment, Mr. Dunkel has determined that approximately 37 percent of the December 31, 20 2005 plant balance will be retired prior to the end of the nuclear plant's operation. Also, 21 Staff has proposed negative 37% as the net salvage estimate for Account 322. Mr. Dunkel 22 states that Staff's net salvage estimate relates to interim retirements and therefore only a

portion of the plant balance and not the entire plant balance. Mr. Dunkel applies Staff's 37% 1 net salvage estimate to 37% of the balance that will be retired in the interim and the resultant 2 3 net salvage estimate that he uses is 14 percent (37% x 37%). Mr. Dunkel proposes similar 4 adjustments for the other four Nuclear Plant Accounts which also reduce Staff's proposed 5 accrual rates. 6 **Q**. What is the impact of Mr. Dunkel's adjustment on depreciation in 7 comparison with Staff's proposed rates and amounts as shown in the Direct Testimony 8 of Staff Witness Mathis? 9 The annual depreciation expense for Nuclear Production Plant is \$5,963,450 Α. 10 less than proposed in the original Staff Direct Testimony. 11 **Q**. Do you agree with the adjustments made by Mr. Dunkel regarding the net salvage estimates for the Callaway Nuclear Plant? 12 13 Α. Yes, I agree with the method used by Mr. Dunkel in determining a net salvage 14 percent estimate for Nuclear Production Plant accounts. The adjustment that Mr. Dunkel 15 made to the net salvage estimate proposed by Staff for Nuclear Production Plant accounts is 16 appropriate. AmerenUE supports the net salvage estimate calculated by OPC witness 17 Dunkel. 18 III. **CALLAWAY COMPOSITE REMAINING LIVES** 19 **Q**. Have you reviewed the Rebuttal Testimony of MIEC Witness Selecky? 20 Yes, I have. A.

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1	Q.	What does Mr. Selecky have to say about the depreciation rates proposed
2	by Staff for	the Nuclear Production Plant accounts at Callaway?
3	A.	Mr. Selecky believes the Staff's proposed depreciation rates for Callaway are
4	excessive and	d should be rejected.
5	Q.	What are his reasons for his assertion that Staff's proposed rates are
6	excessive?	
7	А.	Mr. Selecky provides several reasons to support his position. First, he
8	calculates the	e remaining lives for the Nuclear Production Plant accounts and claims that the
9	Staff's remai	ining lives are too short based on an estimated final retirement date of October,
10	2044. I disa	gree with this assertion and his calculation of the remaining lives for Callaway
11	using Staff's	proposed parameters. Second, he states that the net salvage estimates for
12	Nuclear Proc	luction accounts should only be applied to a portion of Callaway's plant balance
13	representing	interim retirements. This is similar to Mr. Dunkel's comments that I agree with
14	and have add	lressed above. Lastly, he believes the Staff's net salvage estimates are
15	inappropriate	e since they are based on an analysis of the most recent five year period. I also
16	agree with N	Ir. Selecky on this issue. The net salvage analyses for most accounts should
17	consider mor	re than just the most recent 5 year period.
18	Q.	Do you have any comments regarding Mr. Selecky's assertion that the
19	Staff's prop	osed accrual rates for Callaway are excessive?
20	Α.	While the Company supports the use of remaining lives for purposes of
21	calculating a	accrual rates, the specific remaining lives listed on Table 1 and 3, page 4 of
22	Mr. Selecky	's Rebuttal Testimony are calculated incorrectly. On Table 1, page 4 of

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Mr. Selecky's Rebuttal Testimony he lists his calculation of the average remaining lives for 1 2 Callaway by plant account based on the Staff's proposed depreciation parameters. On 3 Table 2, page 4 of his Rebuttal Testimony, Mr. Selecky lists the average remaining lives calculated by AmerenUE based on their proposed depreciation parameters. The primary 4 5 reason for the difference in remaining lives between Staff and the Company is the estimated 6 final retirement date. The Staff's proposes a 10/2044 retirement date while the Company 7 proposes a 10/2024 retirement date which coincides with the end of the plant's operating 8 license issued by the Nuclear Regulatory Commission. On Table 3, page 4 of Mr. Selecky's 9 Rebuttal Testimony, he compares his calculation of the remaining lives based on Staff's 10 proposed depreciation parameters with the Company's remaining lives by plant account for 11 Callaway and incorrectly concludes that Staff's calculations are wrong since the difference in 12 remaining lives is roughly 10 years and not the approximate 20 years as he expected. 13 Staff has not presented a remaining life calculation in their testimony nor do 14 they list remaining lives for Callaway in their testimony. Staff has presented a whole life 15 calculation. Mr. Selecky has calculated remaining lives using the Staff's proposed 16 parameters and has labeled his calculation of the remaining lives as Staff's remaining lives in 17 Tables 1 and 3. 18 О. How should Mr. Selecky have determined the composite remaining lives 19 at Callaway?

- A. To determine the average remaining life for each plant account, you start with
 the plant balance and subtract future net salvage and the calculated accrued depreciation,
 - 5

a.k.a., theoretical reserve. Next, divide the resultant sum by the calculated annual
 depreciation accrual.

3

Q. Is this the process that Mr. Selecky followed?

4 Yes, I believe so. However, he used the wrong amounts. The problem with Α. Mr. Selecky's remaining life calculation for Callaway is that he used the theoretical reserve 5 6 as calculated by the Company based on a 10/2024 estimated final retirement date and used 7 the annual accrual determined by the Staff which is based on a 10/2044 retirement. This 8 mixing of the amounts from different calculations that utilized different parameters leads to 9 an error in Mr. Selecky's remaining life calculation. This miscalculation is easily corrected 10 and when corrected Mr. Selecky will find the difference in remaining lives to be much closer 11 to 20 years than the 10 years he calculated. In summary, the Staff's calculation of the 12 depreciation accrual rates are correct based on the proposed estimates as listed in Witness 13 Mathis' Direct Testimony. 14 IV. NET SALVAGE ACCRUAL 15 Q. What is the purpose of addressing this topic and for your submission of

16 Schedules JFW-E3 and JFW-E4?

A. The purpose of submitting the schedules is to calculate the portion of the
depreciation accruals related to net salvage using both the Company's and Staff's proposed
depreciation parameters. The amounts determined and the testimony that I have prepared on
this topic are in support of the Surrebuttal Testimony of Company witness Charles A.
Mannix.

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0. What do you mean by the term net salvage accrual?

2 The term net salvage accrual means the portion of the depreciation accrual Α. 3 that is related to the prospective recovery of future net salvage. That is, how much of the 4 depreciation accrual is related to the recovery of the asset's original cost and how much of 5 the depreciation accrual is related to future net salvage? Net salvage, by definition, is gross 6 salvage less cost of removal. Certain plant accounts experience removal costs including 7 disposal when they are retired. Typically, the removal cost exceeds any residual gross 8 salvage received for the retired asset. The net salvage estimate typically is expressed as a 9 percent of the asset's original cost for depreciation purposes. The depreciation accrual rate 10 formula using the straight line method, average service life broad group procedure and the 11 whole life technique is: (1-Net Salvage %) / ASL, where ASL stands for Average Service 12 Life. For plant accounts in which the net salvage estimate is negative, a portion of the 13 depreciation accrual relates to the prospective recovery of future net salvage during the asset's useful life on a pro-rata basis. 14

15

Q. Have you calculated the portion of the depreciation accrual that is related to the prospective recovery of future net salvage? 16

17 Α. Yes I have. Schedule JFW-E3 presents the amount of net salvage embedded 18 in the total depreciation accrual by plant account using the Company's proposed depreciation 19 parameters, i.e., survivor curve, terminal dates, and net salvage estimates. The portion of the 20 depreciation accrual related to net salvage is \$63.8 million and the amounts by account are 21 set forth in column 8. Schedule JFW-E4 presents the amount of net salvage embedded in the 22 total depreciation accrual by plant account using the Staff's proposed depreciation

1	parameters. The Company proposed accrual rates listed in Schedule JFW-E2 of my Rebuttal
2	Testimony were used to calculate the amounts shown on Schedule JFW-E3. Similarly, the
3	Staff's proposed accrual rates listed in the Direct Testimony of Ms. Jolie Mathis were used to
4	calculate the amounts shown on Schedule JFW-E4. Using Staff's depreciation parameters,
5	the portion of the depreciation accrual related to net salvage is \$71.2 million and it is set forth
6	in column 8.
7	Q. Please describe how you determined the portion of the depreciation
8	accruals that relates to net salvage.
9	A. For accounts with a negative net salvage percent estimate, I determined the
10	portion of the depreciation accruals related to net salvage using the following formula:
11	(1-NS%) - 1 / (1-NS%), where NS is defined as net salvage.
12	This formula produces a ratio set forth in column 7 of Schedule JFW-E3 and
13	Schedule JFW-E4 showing the percentage of the depreciation accruals related to net salvage.
14	The next step is to multiply the ratio listed in column 7 by the total depreciation accruals
15	presented in column 6. The product is the net salvage accrual or the portion of the
16	depreciation accrual related to net salvage. The net salvage accrual totals \$63.8 million using
17	the Company's proposed parameters and \$71.2 million using the Staff's proposed
18	parameters.
19	Q. Does this complete your Surrebuttal Testimony?

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Yes, it does.

А.

						A	Annual Accrual
.ccount No.	Title	Plant Original Cost Jun-06	Company's Pr Net Salvage (%)	oposed Depreciat Deprec. Rate (%)	Ion Parameters Annual Accrual	Annual Accrual Due to Net Salvage (%)**	Due to Net Salvage
(1)	(2)	(3)	(4)	(5)	(6)=(3)*(5)	(7)	(8)=(6)*(7)
			····		(-) (-) (-)		<u> </u>
	Steam Production Plant						
	Meramec Sleam Production Plant		· · · · · · · · · · · · · · · · · · ·				
311	Structures & Improvements	36,898,059	(17)	3.67%	1,352,771	14.53%	196,55
	Boiler Plant Equipment	399,232,426	(17)	5.37%	21,445,946	14.53%	3,116,07
	Turbogenerator Units	82,051,879	(17)	4.67%	3,831,638	14.53%	556,73
	Acessory Electric Equipment	36,283,593	(17)	4.53%	1,644,121	14.53%	238,88
	Misc. Power Plant Equipment	13,708,320	(17)	5.33%	730,374	14.53%	106,12
	Sioux Steam Production Plant						
		·	······································				
	Structures & Improvements	25,295,269	(22)	3.25%	820,922	<u>1</u> 8.03%	148,0
	Boiler Plant Equipment	328,617,174	(22)	4.21%	13,844,146	18.03%	2,496,4
	Turbogenerator Units	91,440,550	(22)	4.42%	4,046,107	18.03%	729,6
315	Acessory Electric Equipment	34,642,484	(22)	4.27%	1,480,639	18.03%	267,0
316	Misc. Power Plant Equipment	7,962.301	(22)	4.30%	342,588	18.03%	61.7
	Labadie Steam Production Plant						·····
	Structures & Improvements	61,831,946	(25)	2.83%	1,750,479	20.00%	350,0
	Boiler Plant Equipment	560,572,165	(25)	3.38%	18,919,904	20.00%	3,783,9
	Aluminum Coal Cars	117,686,242	30	3.18%	3,748,306	0.00%	
	Turbogenerator Units	186,232,562	(25)	3.59%	6,677,444	20.00%	1,335,4
	Acessory Electric Equipment	73,167,727	(25)	3.06%	2,240,240	20.00%	448,0
316	Misc, Power Plant Equipment	17,242,739	(25)	3.75%	647,309	20.00%	129,4
	Rush Island Steam Production Plant						
311	Structures & Improvements	52,397,875	(22)	2.50%	1,309,482	18.03%	236,1
312	Boiler Plant Equipment	354,788,784	(22)	3.12%	11,072,128	18.03%	1,996,6
314	Turbogenerator Units	135,990,789	(22)	3.18%	4,323,070	18.03%	779,5
	Acessory Electric Equipment	32,925,827	(22)	2.85%	937,310	18.03%	169,0
316	Misc, Power Plant Equipment	10,122,281	(22)	3.47%	351,629	18.03%	63,4
	Common Steam Production Plant					·····	
311	Structures & Improvements	1,959,206	(5)	3.36%	65,904	4.76%	
	Boiler Plant Equipment	37,071,156	(5)	3.63%	1,344,681	4.76%	64,0
	Accessory Electrical Equipment	3,129,975	(5)	3.47%	108,510	4.76%	5,1
316	Misc. Power Plant Equipment	20,843	(5)	3.82%	797	4.76%	
	Total Steam Production Plant	2,701,272,172			103,036,443		17,281,5
	Nuclear Production Plant		······			· · · · · · · · · · · · · · · · · · ·	
	Structures and improvements	893,268,025	0	2.82%	25,177,567	0.00%	
	Reactor Plant Equipment	957,550,064					⁻
	+			3.38%	32,356,014	0.00%	· · · · · · · · · · · · · · · · · · ·
	Turbogenerator Units	494,453,935	0	3.18%	15,743,906	0.00%	·
	Accessory Electric Equipment Misc. Power Plant Equipment	210,754,954 165,413,219	0 0	2.74% 3.70%	5,775,691 6,120,965	0.00%	
			······				
	Total Nuclear Production Plant	2,721,440,197	· · · · · · · · · · · · · · · · · · ·		85,174,143		

** The annual accrual due to net salvage (%) is calculated for each account as [(1-NS)-1]/(1-NS) when NS < 0 and as 0 when NS ≥ 0.

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		Plant	Company's Pr	Company's Proposed Depreciation Parameters			Annual Accrual
Account No.	Title	Original Cost Jun-06	Net Salvage (%)	Deprec. Rate (%)	Annuai Accrual	Due to Net Salvage (%)**	Due to Net Salvage
(1)	(2)	(3)	(4)	(5)	(6)=(3)*(5)	(7)	(8)=(6)*(7)
	Osage Hydraulic Production Plant				· · · · · · · · · · · · · · · · · · ·		
331	Structures and Improvements	3,860,732	(10)	1.58%	61,035	9.09%	5,54
332	Reservoirs, Dams, and Waterways	25,439,912	(20)	1.50%	381,145	16.67%	63,52
333	Water Wheels, Turbines, and Generators	19,301,223	(10)	2.00%	385,727	9.09%	35,06
334	Accessory Electric Equipment	4,112,456	0	2.18%	89,700	0.00%	
335	Misc. Power Plant Equipment	1,773,982	0	2.49%	44,229	0.00%	
336	Roads, Railroads, and Bridges	77,445	0	1.12%	864	0.00%	
	Keokuk Hydraulic Production Plant						
331	Structures and Improvements	4,117,339	(10)	2.10%	86,534	9.09%	7,86
	Reservoirs, Dams, and Waterways	12,367,195	(20)	2.00%	247,724	16.67%	41,28
	Water Wheels, Turbines, and Generators	59,194,802	(10)	3.05%	1,804,184	9.09%	164,01
	Accessory Electric Equipment	9,167,068	0	2.98%	273,381	0.00%	
	Misc. Power Plant Equipment	2.631,559	0	2.98%	78,320	0.00%	-
	Roads, Railroads, and Bridges	114,926	0	1.98%	2,272	0.00%	
	Taum Sauk Hydraulic Production Plant	<u></u>			······		
	Structures and Improvements	5,503,349	<u>(1</u> 0)	1.80%	99,188	9.09%	9,0
	Reservoirs, Dams, and Waterways	27,586,615	(20)	2.10%	579,487		96,51
333	Water Wheels, Turbines, and Generators Accessory Electric Equipment	37,356,989	(10) 0	2.52%	942,957	9.09%	85,72
	Misc. Power Plant Equipment	1,630,658	0	3.11%	108,244 50,647	0.00%	
	Roads, Railroads, and Bridges	45,570	0	1.50%	683	0.00%	<u>-</u>
	Tatal Mudraulia Draduatica Diret	248 470 005					
	Total Hydraulic Production Plant	218,470,005			5,236,323		508,6
	Other Production Plant						
341	Structures and Improvements	15,382,120	_(5)	2.86%	439,596	4.76%	20,9
342	Fuel Holders, Products, and Accessories	12,264,732	(5)	2.97%	364,449	4.76%	17,3
	Generators	583,616,964	(5)	2.96%	17,283,670	4.76%	823,0
345	Accessory Electric Equipment	26,793,140	(5)	2.89%	774,394	4.76%	36,8
346	Misc. Power Plant Equipment	5,665,300	(5)	2.83%		4.76%	7,6
	Total Other Production Plant	643,722,256			19,022,293		905,8
	Transmission Plant		······································				
	Structures and Improvements	6,219,706	(5)	1.75%	100.000	4 700/	
	Station Equipment	181,457,965	(3)	1.82%		4.76% 0.00%	5,1
	Tower and Fixtures	70,903,822	(10)	1.69%	1,201,111	9.09%	109,1
	Poles and Fixtures	113,204,654	(90)	3.65%	4,129,657	47.37%	1,956,1
	Overhead Conductors and Devices	118,782,726	(25)	2.27%	2,697,446	20.00%	539,4
	Roads and Trails	71,788	0	1.20%	858	0.00%	
							
	Total Transmission Plant	490,640,661			11,440,669		2,610,0

** The annual accrual due to net salvage (%) is calculated for each account as [(1-NS)-1]/(1-NS) when NS < 0 and as 0 when NS ≥ 0.

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362 Station Equip 364 Poles, Tower 365 Overhead Co 366 Underground 367 Underground 368 Line Transfo 369,001 Overhead Se 369,002 Underground 370 Meters 371 Installations 373,00 Street Lightin General Plan 390.0 Structures an	and Improvements vipment ers, and Fixtures Conductors and Devices	Original Cost Jun-06 (3) 15,759,384 531,174,647	Net Salvage (%) (4)	Deprec. Rate (%) (5)	Annual Accrual (6)=(3)*(5)	Due to Net Salvage (%)** (7)	Due to Net Salvage (8)≈(6)*(7)
(1) Distribution F 361 Structures ar 362 Station Equip 364 Poles, Towel 365 Overhead Cc 366 Underground 367 Underground 368 Line Transfo 369,001 Overhead Sc 369,002 Underground 370 Meters 371 Installations 373,00 Street Lightin Total Distrit General Plan 390,0 Structures ar 391,0 Office Furnit 391,1 Mainframe C 391,2 Personal Co	(2) Plant and Improvements vipment ers, and Fixtures Conductors and Devices	(3)	(4)				
Distribution F 361 Structures ar 362 Station Equif 364 Poles, Tower 365 Overhead Co 366 Underground 367 Underground 368 Line Transfo 369.001 Overhead Se 369.002 Underground 370 Meters 371 Installations 373.00 Street Lightin Total Distrit General Plan 390.0 Structures ar 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co	Plant and Improvements upment ers, and Fixtures Conductors and Devices	15,759,384		(5)	(<mark>6)</mark> ≠(3)*(5)	(7)	(8)≈(6)*(7)
361 Structures ar 362 Station Equip 364 Poles, Tower 365 Overhead Co 366 Underground 367 Underground 368 Line Transfo 369,001 Overhead Se 369,002 Underground 370 Meters 371 Installations 373.00 Street Lightin Total Distrit General Plan 390.0 Structures ar 391.0 Office Furnit 391.1 Mainframe Co 391.2 Personal Co	and Improvements vipment ers, and Fixtures Conductors and Devices						
361 Structures ar 362 Station Equip 364 Poles, Tower 365 Overhead Co 366 Underground 367 Underground 369,001 Overhead Se 369,002 Underground 370 Meters 371 Installations 373,00 Street Lightin Total Distrit General Plan 390.0 Structures ar 391.0 Office Furnit 391.1 Mainframe Co 391.2 Personal Co	and Improvements vipment ers, and Fixtures Conductors and Devices						
362 Station Equip 364 Poles, Tower 365 Overhead Co 366 Underground 367 Underground 368 Line Transfo 369,001 Overhead Se 369,002 Underground 370 Meters 371 Installations 373.00 Street Lightin Total Distrit General Plan 390.0 Structures an 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co	ripment ers, and Fixtures Conductors and Devices						
364 Poles, Tower 365 Overhead Co 366 Underground 367 Underground 368 Line Transfo 369,001 Overhead Sc 369,002 Underground 370 Meters 371 Installations 373.00 Street Lightin Total Distrit General Plan 390.0 Structures at 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co	ers, and Fixtures	531,174,647	(5)	1.75%	276,341	4.76%	13,15
365 Overhead Co 366 Underground 367 Underground 368 Line Transfo 369,001 Overhead So 369,002 Underground 370 Meters 371 Installations 373.00 Street Lightin General Plan 390.0 Structures an 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co	Conductors and Devices		0	1.82%	9,667,378	0.00%	-
366 Underground 367 Underground 368 Line Transfo 369,001 Overhead Sc 369,002 Underground 370 Meters 371 Installations 373,00 Street Lightin Total Distrit General Plan 390.0 Structures at 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co		657,866,888	(135)	5.47%	36,017,181	57.45%	20,690,72
367 Underground 368 Line Transfo 369,001 Overhead Se 369,002 Underground 370 Meters 371 Installations 373,00 Street Lightin Total Distrit General Plan 390.0 Structures at 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co		725,041,472	(50)	3.19%	23,165,075	33.33%	7,721,69
368 Line Transfo 369,001 Overhead Se 369,002 Underground 370 Meters 371 Installations 373,00 Street Lightin Total Distrit General Plan 390.0 Structures at 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co	nd Conduit	172,578,086	(50)	2.31%	3,986,554	33.33%	1,328,85
369,001 Overhead Se 369,002 Underground 370 Meters 371 Installations 373,00 Street Lightin Total Distrit General Plan 390.0 Structures an 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co	nd Conductors and Devices	459,391,695	(25)	2.36%	10,853,129	20.00%	2,170,62
369.002 Underground 370 Meters 371 Installations 373.00 Street Lightin Total Distrit General Plan 390.0 Structures an 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co	formers	353,005,804	0	2.22%	7,836,729	0.00%	-
370 Meters 371 Installations 373.00 Street Lightin Total Distrit General Plan 390.0 Structures an 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co	Services	126,844,186	(200)	8.09%	10,258,181	66.67%	6,838,78
371 Installations 373.00 Street Lightin Total Distrit General Plan 390.0 Structures at 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co	nd Services	121,695,103	(80)	3.99%	4,857,977	44.44%	2,159,10
373.00 Street Lightin Total Distrit General Plar 390.0 Structures al 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co		103,953,475	a	3.57%	3,710,669	0.00%	
Total Distrit General Plar 390.0 Structures al 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co	s on Customer Premises	164,856	0	3.74%	6,161	0.00%	-
General Plan 390.0 Structures an 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co	ting and Signal Systems	101,695,076	(45)	4.39%	4,467,973	31.03%	1,386,61
390.0 Structures al 391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co	ibution Plant	3,369,170,672			115,103,348		42,309,55
391.0 Office Furnit 391.1 Mainframe C 391.2 Personal Co	ant		i				
391.1 Mainframe C 391.2 Personal Co	and Improvements	171,487,901	(5)	2.33%	3,996,976	4.76%	190,33
391.2 Personal Co	iture and Equipment	44,289,607	0	4.77%	2,110,938	0.00%	
	Computers	422,014	0	0.00%	-	0.00%	
392.0 Transportation	Computers	1,796,928	0	19.42%	349,006	0.00%	-
	tion Equipment	83,429,052	9	8.23%	6,865,401	0.00%	-
393.0 Stores Equip	lipment	2,104,840	0	3.71%	78,149	0.00%	-
394.00 Tools, Shop	p and Garage Equipment	10,972,846	0	4.34%	476,689	0.00%	-
395.00 Laboratory E	Equipment	6,650,033	0	4.48%	297,976	0.00%	-
396.00 Power Oper	erated Equipment	9,843,387	15	5.67%	558,071	0.00%	
397.00 Communical	ation Equipment	128,018,518	0	4.80%	6,142,826	0.00%	-
398.00 Miscellaneou	ous Equipment	641,398	0	4.84%	31,058	0.00%	

TOTAL DEPRECIABLE PLANT

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10,604,372,487

359,920,310

63,805,871

** The annual accrual due to net salvage (%) is calculated for each account as [(1-NS)-1]/(1-NS) when NS < 0 and as 0 when NS ≥ 0.

Account		Plant Original Cost	Staff's Prop Net	osed Depreclati Deprec.	Annual Accrual Due to Net	Annual Accruai Due to Net	
No.	Title	Jun-06	Salvage (%)	Rate (%)	Accrual	Salvage (%)**	Salvage
(1)	(2)	(3)	(4)	(5)	(6)=(3)*(5)	(7)	(8)=(6)*(7)
	Steam Production Plant						. <u> </u>
				+			
	Meramec Steam Production Plant						·
	······································		_				
311	Structures & Improvements	36,898,059	(21)	1.05%	387,430	17.36%	67,2
312	Boiler Plant Equipment	399,232,426	(29)	2.15%	8,583,497	22.48%	1,929,6
314	Turbogenerator Units	82,051,879	(7)	1.70%	1,394,882	6.54%	91,2
315	Acessory Electric Equipment	36,283,593	(9)	1.21%	439,031	8.26%	
316	Misc. Power Plant Equipment	13,708,320	(6)	1.77%	242,637	5.66%	13,7
	Sioux Steam Production Plant						
		05 305 350	(24)	1.05%	005 600	17 200	
	Structures & Improvements Boiler Plant Equipment	25,295,269 328,617,174	(21)	2.15%	265,600	17.36% 22.48%	46,0
-		91,440,550	(29)	1.70%	7,065,269	6.54%	1,588,3
-	Turbogenerator Units		(7)	1.21%		8.26%	34,6
	Acessory Electric Equipment Misc. Power Plant Equipment	34,642,484	(9) (6)	1.21%	419,174	5.66%	
- 316		7,902,507	(0)	1.1776	140,933	5.00%	
	Labadia Steam Production Plant						
	Structures & Improving ante	61 931 046	(21)	1.05%	E40 225	17.36%	440.6
· · · · · · · · · · · · · · · · · · ·	Structures & Improvements	61,831,946	(21)	1.05%	649,235	·····	112,6
	Boiler Plant Equipment	560,572,165	(29) 8	2.15%	12,052,302	22.48%	2,709,4
	Aluminum Coal Cars	117,686,242	(7)	1.70%	4,931,054	6.54%	207,1
	Acessory Electric Equipment	73,167,727	(9)	1.21%	885,329	8.26%	73,1
	Misc. Power Plant Equipment	17,242,739	(6)	1.77%	305,196	5.66%	17,2
					000,100		
· · · · ·	Rush Island Steam Production Plant						
311	Structures & Improvements	52,397,875	(21)	1.05%	550,178	17.36%	95,4
312	Boiler Plant Equipment	354,788,784	(29)	2.15%	7,627,959	22.48%	1,714,8
314	Turbogenerator Units	135,990,789	(7)	1.70%	2,311,843	6.54%	151,2
315	Acessory Electric Equipment	32,925,827	(9)	1.21%	398,403	8.26%	32,8
316	Misc. Power Plant Equipment	10,122,281	(6)	1.77%	179,164	5.66%	10,1
	Common Steam Production Plant		-				
211	Structures & Improvements	1,959,206	(21)	1.05%	20,572	17.36%	3,5
	Boiler Plant Equipment	37,071,156	(29)	2.15%	797.030	22.48%	179,1
	Accessory Electrical Equipment	3,129,975	(9)	1.21%	37,873	8.26%	3,1
	Misc. Power Plant Equipment	20,843	(6)	1.77%	369	5.66%	
	Total Steam Braduation Blant	0 704 979 479			54,405,403		
	Total Steam Production Plant	2,701,272,172			54,405,403		9,226,8
	Nuclear Production Plant						
	Structures and Improvements	893,268,025	(3)	1.97%	17,597,380	2.91%	512,5
322	Reactor Plant Equipment	957,550,064	(37)	3.10%	29,684,052	27.01%	8,016,5
323	Turbogenerator Units	494,453,935	(3)	2.08%	10,284,642	2.91%	299,5
324	Accessory Electric Equipment	210,754,954	(2)	1.91%	4,025,420	1.96%	78,9
325	Misc. Power Plant Equipment	165,413,219	(1)	2.49%	4,118,789	0.99%	40,7

** The annual accrual due to net salvage (%) is calculated for each account as [(1-NS)-1]/(1-NS) when NS < 0 and as 0 when NS ≥ 0.

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Schedule JFW-E4-1

		Plant	Staff's Prop	osed Deprecial	tion Parameters	Annual Accrual	Annual Accrua
count	T :01-	Original Cost	Net Eabarra (%/)	Deprec.	Annual Accrual	Due to Net Salvage (%)**	Due to Net Salvage
No.	Title	Jun-06	Salvage (%)	Rate (%)			
(1)	(2)	(3)	(4)	(5)	(6)=(3)*(5)	(7)	(8)=(6)*(7)
	Osege Hydraulic Production Plant				6		
<u></u>	Caege Hydraune Produciich Phan	1			·····		·
331	Structures and Improvements	3.860,732	(41)	0.94%	36,291	29.08%	10,5
	Reservoirs, Dams, and Waterways	25,439,912	0	0.56%	142,464	0.00%	
	Water Wheels, Turbines, and Generators	19,301,223	(161)	2.09%	403,396	61.69%	248,8
	Accessory Electric Equipment	4,112,456	(9)	1.58%	69,089	8.26%	5,7
_	Misc. Power Plant Equipment	1,773,982	0	1.67%	29,625	0.00%	-
336	Roads, Railroads, and Bridges	77,445	0	1.63%	1,262	0.00%	-
	Keokuk Hydraulic Production Plant						·
331	Structures and Improvements	4,117,339	(41)	0.94%	38,703	29.08%	
332	Reservoirs, Dams, and Waterways	12,367,195	0	0.56%	69,256	0.00%	
333	Water Wheels, Turbines, and Generators	59,194,802	(161)	2.09%	1,237,171	61.69%	763,1
334	Accessory Electric Equipment	9,167,068	(9)	1.68%	154,007	8.26%	12,7
335	Misc. Power Plant Equipment	2,631,559	0	1.67%	43,947	0.00%	
336	Roads, Railroads, and Bridges	114,926	0	1.63%	1,873	0.00%	
	Taum Sauk Hydraulic Production Plant						······
224	Structures and Improvements	5,503,349	(41)	0.049/	E1 721	29.08%	15,0
	Structures and Improvements Reservoirs, Dams, and Waterways		(41) 0	0.94%	51,731 154,485	0.00%	10,0
	Water Wheels, Turbines, and Generators	27,586,615	(161)	2.09%	780,761	61.69%	481.6
	Accessory Electric Equipment	4,188,185	(9)	1.68%	70,362	8.26%	5,8
	Misc. Power Plant Equipment	1,630,658	0	1.67%	27,232	0.00%	
	Roads, Railroads, and Bridges	45,570	0	1.63%	743	0.00%	
	Total Hydraulic Production Plant	218,470,005			3,312,399		1,554,6
		218,470,005			3,312,399		1,554,6
	Other Production Plant						
341	Structures and Improvements	15,382,120	0	1.67%	256,881	0.00%	
342	Fuel Holders, Products, and Accessories	12,264,732	0	2.50%	306,618	0.00%	
344	Generators	583,616,964	0	2.22%	12,956,297	0.00%	
345	Accessory Electric Equipment	26,793,140	0	1.89%	506,390	0.00%	
346	Misc. Power Plant Equipment	5,665,300	0	4.00%	226,612	0.00%	
	Total Other Production Plant	643,722,256			14,252,799		
	Transmission Plant						
357	Structures and Improvements	6,219,706		1.67%	103,869	0.00%	
	Station Equipment	181,457,965	(6)	1.56%	2,830,744	5.66%	160,3
~~	Tower and Fixtures	70,903,822	(22)	1.88%	1,332,992	18.03%	240,3
	Poles and Fixtures	113,204,654	(24)	2.38%	2,694,271	19.35%	521,
	Overhead Conductors and Devices	118,782,726	(2)	1.85%	2,197,480	1.96%	43,
	Roads and Trails	71,788	0	0.00%		0.00%	
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		Plant	Staff's Prop	Annual Accrual	Annual Accruai		
ccount		Original Cost	Net	Deprec.	Annual	Due to Net	Due to Net
No.	Title	Jun-06	Salvage (%)	Rate (%)	Accrual	Salvage (%)**	Salvage
(1)	(2)	(3)	(4)	(5)	{6}=(3)*(5)	(7)	(8)=(6)*(7)
			<u></u>				
	Distribution Plant	· · · · · · · · · · · · · · · · · · ·			······		
361	Structures and improvements	15,759,384		1.67%	263,182	0.00%	
362	Station Equipment	531,174,647	(2)	1.62%	8,605,029	1.96%	168,72
	Poles, Towers, and Fixtures	657,866,888	(154)	5,92%	38,945,720	60.63%	23,612,75
365	Overhead Conductors and Devices	725.041,472	(52)	3,30%	23,926,369	34,21%	8,185,3
	Underground Conduit	172,578,086	0	1.54%	2,657,703	0.00%	
	Underground Conductors and Devices	459,391,695	(40)	2,59%	11,898,245	28,57%	3,399,49
	Line Transformers	353,005,804	(1)	2,40%	8,472,139	0.99%	83.88
	Overhead Services	126,844,186	(303)	10.86%	13,775,279	75,19%	10,357,0
369,002	Underground Services	121,695,103	(98)	4.39%	5,342,415	49,49%	2,644,2
	Meters	103,953,475	2	3,50%	3,638,372	0.00%	
371	Installations on Customer Premises	164,856	0	3.55%	5,852	0.00%	
373.00	Street Lighting and Signal Systems	101,695,076	(58)	4.27%	4,342,380	36,71%	1,594,0
	Total Distribution Plant	3,369,170,672		<u> </u>	121,872,683		50,045,5
	General Plant						
·	Structures and Improvements	171,487,901	(11)	2.46%	4,218,602	9.91%	418,0
391.0	Office Furniture and Equipment	44,289,607	0	5.00%	2,214,480	0.00%	
	Mainframe Computers	422,014	0	16.67%	70,350	0.00%	
	Personal Computers	1,796,928	0	11.11%	199,639	0.00%	
	Transportation Equipment	83,429,052	7	8.41%	7,016,383	0.00%	
	Stores Equipment	2,104,840	. 4	3.84%	80,826	0.00%	
	Tools, Shop and Garage Equipment	10,972,846	4	3.20%	351,131	0.00%	·
	Laboratory Equipment	6,650,033	0	3.85%	256,026	0.00%	
	Power Operated Equipment	9,843,387	13	5.80%	570,916	0.00%	
397.00	Communication Equipment	128,018,518	0	3.70%	4,736,685	0.00%	
398.00	Miscellaneous Equipment	641,398	2	4.26%	27,324	0.00%	

Analyzed Totals

Column Totals

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10,604,372,487

288,455,286

71,159,026

** The annual accrual due to net salvage (%) is calculated for each account as [(1-NS)-1]/(1-NS) when NS < 0 and as 0 when NS ≥ 0.

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

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In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company's Missouri Service Area.

Case No. ER-2007-0002

AFFIDAVIT OF JOHN F. WIEDMAYER

COMMONWEALTH OF PENNSYLVANIA)) ss COUNTY OF MONTGOMERY)

John F. Wiedmayer, being first duly sworn on his oath, states:

1. My name is John F. Wiedmayer. I work in Audubon, Pennsylvania and I

am a Project Manager with the firm of Gannett Fleming, Inc.

2. Attached hereto and made a part hereof for all purposes is my Surrebuttal

Testimony on behalf of Union Electric Company d/b/a AmerenUE consisting of

pages and Schedules JFW-E3 and JFW-E4, which has been prepared in written form for

introduction into evidence in the above-referenced docket.

3. I hereby swear and affirm that my answers contained in the attached

testimony to the questions therein propounded are true and correct.

Subscribed and sworn to before me this 27^{-1} day of February, 2007.

My commission expires: July 5, 200 %

COMMONWEALTH OF PENNSYLVANIA Notarial Seal Susan F. Warner, Notary Public Lower Providence Twp., Montgomery County My Commission Expires July 5, 2008