Exhibit No.:
Issue: *Depreciation*
Witness: *Jolie L. Mathis*
Sponsoring Party: *MoPSC Staff*
Type of Exhibit: *Surrebuttal Testimony*
Case No.: *ER-2007-0002*
Date Testimony Prepared: *February 27, 2007*

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

SURREBUTTAL TESTIMONY

OF

JOLIE L. MATHIS

UNION ELECTRIC COMPANY
D/B/A AMERENUE
CASE NO. ER-2007-0002

Jefferson City, Missouri
February 2007

****Denotes Highly Confidential Information****

NP

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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 JOLIE L. MATHIS

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Jolie L. Mathis, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Surrebuttal Testimony in question and answer form, consisting of 12 pages to be presented in the above case; that the answers in the foregoing Surrebuttal Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of her knowledge and belief.

Jolie L. Mathis

Subscribed and sworn to before me this 27th day of February, 2007.

TONI M. CHARLTON
NOTARY SEAL
NOTARY PUBLIC
STATE OF MISSOURI

TONI M. CHARLTON
Notary Public - State of Missouri
My Commission Expires December 28, 2008
Cole County
Commission #04474301

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JOLIE MATHIS

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SURREBUTTAL TESTIMONY

OF

JOLIE L. MATHIS

UNION ELECTRIC COMPANY

D/B/A AMERENUE

CASE NO. ER-2007-0002

Q. Please state your name and business address.

A. Jolie L. Mathis, P.O. Box 360, Jefferson City, Missouri, 65102.

Q. By whom are you employed and in what capacity?

A. I am employed by the Missouri Public Service Commission (Commission) as a Utility Engineering Specialist III in the Engineering and Management Services Department.

Q. Are you the same Jolie L. Mathis who has previously filed direct testimony on behalf of the Staff of the Missouri Public Service Commission in this case?

A. Yes.

Q. What is the purpose of your surrebuttal testimony?

A. I will respond to the rebuttal testimony of witnesses John Wiedmayer, Bill Stout and William Dunkel.

Q. Which particular issues will you address?

A. I will address:

1. Staff vs. Company Computation of Depreciation Rate
2. Licensed Plant

Staff vs. Company Computation of Depreciation Rate

Q. Did Staff and AmerenUE use similar methods to determine the average service life, curves and salvage amounts?

A. Yes. The method of study used to determine the average service life, curves and salvage amounts were essentially the same with the exception of some data interpretation for curve selection, variance in average service life selection and salvage rate selection. This interpretation is at the depreciation engineer's discretion based upon experience and engineering judgment.

Q. Mr. Weidmayer makes the statement beginning on page 4, line 14, "Ms. Mathis has determined average service lives by relying almost entirely on analysis of historical data and ignoring other relevant information…" Is his statement true?

A. No. In Case No. EC-2002-1, I conducted field inspections and discussed plant operations and plans for property retirement at Ameren UE's four coal fired plants and two hydroelectric plants. In the process I became very familiar with the property. For this case, Case No. ER-2007-0002, in addition to reviewing information Staff obtained from AmerenUE through data requests, its filings in this case and press releases, I relied on the knowledge I gathered from field inspections and discussions with members of the Commission's Engineering Staff regarding recent plant operations. I also reviewed depreciation work including Staff's proposed and the Commission's ordered rates for other Missouri electric utilities. My depreciation study included engineering judgment, which took into consideration the type of plant, how it operates, and how long it will last to confirm or modify the results of my statistical analysis of AmerenUE's mortality data. AmerenUE has a

substantial amount of actuarial data that even if relied on solely, would produce good estimates of the life and net salvage for that plant.

Q. Has the Commission recently given any strong guidance as to the accounting treatment of depreciation?

A. Yes. In its March 10, 2005, Report and Order in Case No. ER-2004-0570, the Commission on page 54, stated, "It is the policy of this Commission to return to traditional accounting methods for Net Salvage." On page 52 of that same Report and Order the Commission stated:

> Under the traditional accrual method favored by Empire, the depreciation rate for a particular asset or group of assets is calculated as follows:
>
> $$\text{Depreciation Rate} = \frac{100\% - \%\ \text{Net Salvage}}{\text{Average Service Life (years)}}$$

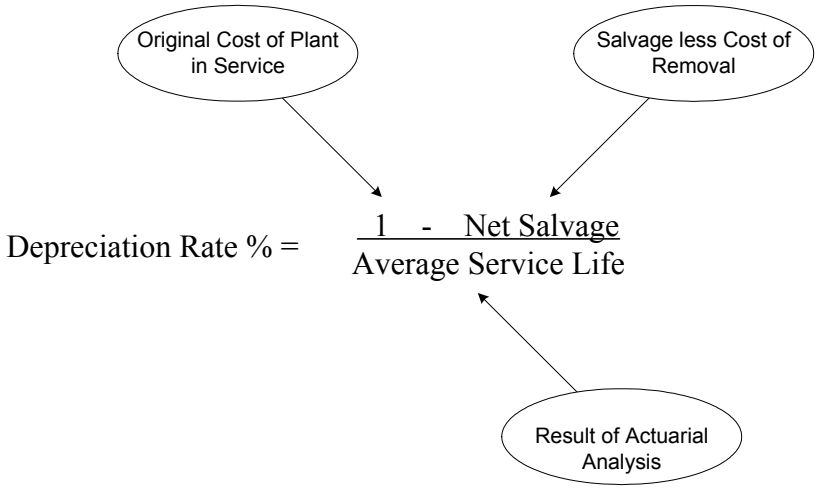
In the above formula historically for this Commission 100% represents the Original Cost of the plant in service. The % "Net Salvage equals the gross salvage value of the asset minus the cost of removing the asset from service. The net salvage percentage is determined by dividing the net salvage experienced for a period of time by the original cost of the property retired during that same period of time." The Average Service Life is determined by a common method of actuarial analysis of historical plant additions and retirements involving the Iowa curve sets.

Q. Why are there differences then in the results of the determined depreciation rates?

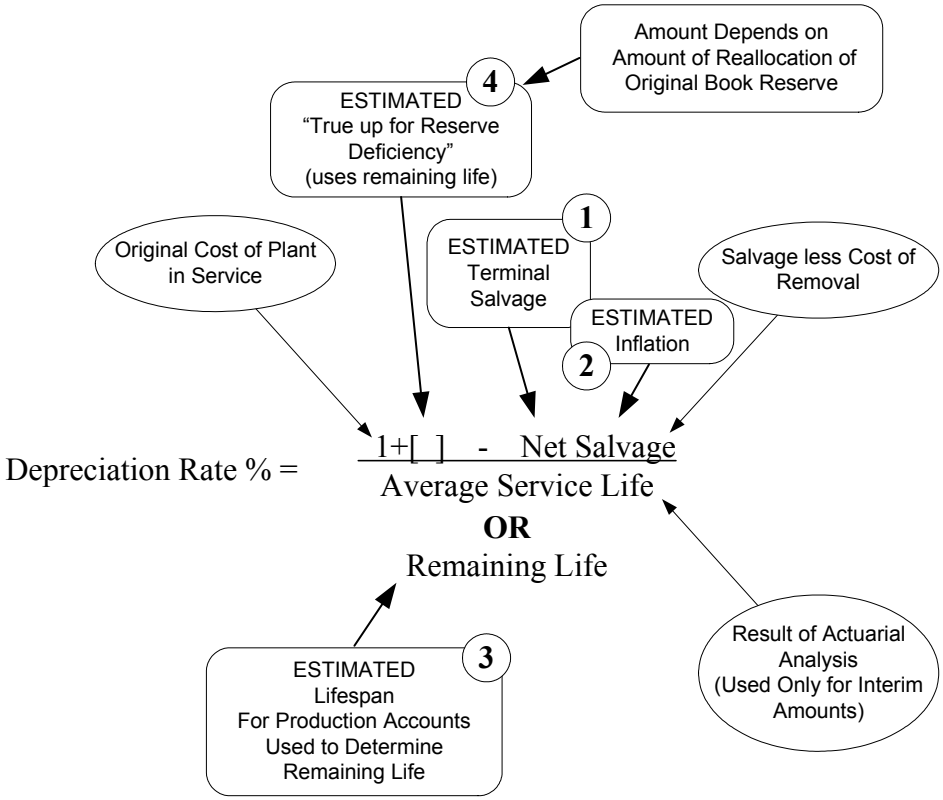
A. These differences are mainly attributable to AmerenUE adding additional assumptions and variables to their determination of the depreciable rates that have not previously been used by the Commission for the determination of AmerenUE's depreciation

rates. The diagram below compares the differences between the Staff's and AmerenUE's calculation of depreciation rates. (1) AmerenUE adds an additional estimated amount for terminal net salvage for steam production plant in the net salvage calculation. (2) Ameren UE adds an additional amount for future inflation for steam production plant in the terminal net salvage calculation. (3) AmerenUE assumes final retirement dates or Lifespan for production plant accounts. The Lifespan drives the estimates for a remaining life that is used to adjust the period over which the future depreciation amount and accruals will need to be made based upon the time available before everything in the account is retired. (4) AmerenUE adds a "True-up for Reserve Deficiency" to the original cost of plant in service that is based upon their reallocated reserve amounts and remaining life.

Staff and Commission Policy for Computation of Depreciation Rate:



Company Interpretation of Computation of Depreciation Rate:



Q. In Mr. Bill Stout's Rebuttal Testimony, page 10 lines 19-23, he states, "Terminal net salvage should be incorporated in the determination of annual depreciation rates for power plants. The dates of retirement are not speculative. Avoiding any recovery of such costs due to the lack of a date certain creates even worse inequities than applying Ms. Mathis' indefinite life assumption when determining the average life of each installation year." Do you agree with him?

A. No. It is speculative, and not known or measurable, as to both the time dismantling will occur and the dollar amount that will be incurred. Given this significant uncertainty it is inappropriate for customers to pay the expense of removal at this time. Mr. Stout's suggestion is to use an estimate premised on the most expensive retirement option. Mr. Stout has ignored the fact that the Company should choose its most economical

retirement option. Also, Staff is not implying an indefinite life by not including terminal net salvage estimates in its depreciation study. Rather, an average service life with interim net salvage costs associated with interim retirements would fully recover the investment over its average service life.

Q. Has the Commission recently addressed terminal net salvage?

A. Yes. On page 53 of its March 10, 2005 Report and Order in Case No. ER-2004-0570, the Commission stated:

> Second, with respect to Terminal Net Salvage of Production Plant Accounts, this Commission generally has not allowed the accrual of this item. The reason is that generating plants are rarely retired and any allowance for this item would necessarily be purely speculative. It is true that all depreciation is founded upon estimates, but all estimates are not unduly speculative. Just as utility companies plan rate cases around the projected in-service dates of new plants, so Empire can plan around the retirement of its generating plants so that the Net Salvage expense is incurred in a Test Year. Another alternative is the device of the Accounting Authority Order. As already discussed in connection with the Production Account Service Life issue, there is no evidence that the retirement of any of Empire's plant is imminent and the estimated retirement dates considered in this proceeding are not persuasive. For these reasons, the Commission will not allow the accrual of any amount for Terminal Net Salvage of Production Plants.

Q. Did AmerenUE recently ask the Commission to give definitive guidance as to the appropriate treatment of net salvage?

A. Yes. On page 7 of AmerenUE's initial brief filed in ER-2004-0570, on January 21, 2004, Ameren UE stated:

> All of the stakeholders-including utilities, customers and the financial community-will benefit if the Commission establishes a consistent treatment of net salvage. Moreover, the parties and the Commission can conserve resources if a consistent Commission policy prevents this issue from being litigated over and over in each rate case.

Q. Has Ameren UE followed in this case the guidance the Commission provided for depreciation accounting in its March 10, 2005 Report and Order in Case No. ER-2004-0570?

A. No. As AmerenUE witness William Stout states in his direct testimony filed in this case, AmerenUE is asking the Commission to incorporate estimated amounts and variables both denied and beyond those the Commission addressed in Case No. ER-2004-0570. AmerenUE has used a reserve adjusted hybrid of the remaining life depreciation technique instead of the whole life formula, and is requesting terminal net salvage of inflation adjusted unknown, uncertain, projected plant retirements that have not been made a part of its Integrated Resource Planning.

Q. A component of Mr. Stout's terminal net salvage is future inflation. Did you make an adjustment for future inflation in any of you depreciation calculations?

A. No, based on Commission guidance in prior cases I did not. In a Capital City Water Company general rate case, Case No. WR-94-297, the Commission stated:

> The Commission determines that no adjustments for inflation are appropriate because the proposed inflation adjustments are not known, nor are they measurable. In addition the Commission is of the opinion that the proposed adjustments for inflation are speculative in nature.

Also, in a Kansas City Power & Light Company general rate case, Case No. ER-80-48, in its Report and Order, the Commission said:

> The Commission can only base its decision on facts and knowledge presently available and has accepted the latest known figures. The Commission notes that one of the purposes of the true-up hearing was to allow the parties to present to the Commission the most current prices for fuel the area most likely to be subject to inflation. The Commission will not pass on to the Company's ratepayers a speculative inflation adjustment. To do so would be to pass on inflation before the fact and to put all of the risk of inflation on the ratepayer. For the forgoing reasons, the Commission finds that the Company's proposed attrition adjustment as discussed above is disallowed.

Q. Mr. Bill Stout states in his Rebuttal Testimony pg. 3 lines 3-11, the following:

> The use of a life span for each power plant, based on the experience and expectations of the company and the industry, is far preferable to the assumption that these plants will live forever and have an infinite life. We know that the plants do not have infinite lives, but we do not know for certain when they will be retired. So, should we do what we know is wrong or use our best judgment to estimate when the final retirement of the plant will occur? My answer to this question is that we should use informed judgment, incorporating appropriate analyses and the outlook of management and the industry, in the same manner that we do for mass property whose retirement dates are not certain either.

What is your response to his assertion Staff is assuming power plants "will live forever and have an infinite life"?

A. Staff is not assuming the power plants will "have an infinite life." Staff is unwilling to assume at this time these plants will be retired in the foreseeable future, and in the absence of better information, is using average service lives for the property at these power plants. Determination of the exact timing of the retirement of a particular facility can only be made relatively close to the time of its anticipated retirement date. Until that time, many variables such as power supply replacement, technology improvements, market conditions, and regulatory requirements change over time. For these reasons, the final retirement date is uncertain.

Q. Why are AmerenUE's retirement dates for steam production plant a significant issue?

A. These retirement dates for production plant are an issue because AmerenUE is projecting the date certain that generation plant will be retired and then using these dates as the basis for shortening average lives (ASLs) and increasing the depreciation rates for its generation plant. Shortening the ASL is a way to increase depreciation expense to achieve increased revenue requirements. Steam Production Plant makes up a significant portion of

plant in service. The difference in annual accrual between Staff and Company in Steam Production Plant is approximately 48 million dollars.

Q. Has the Commission addressed the life span issue lately?

A. Yes, in the first paragraph of the Report and Order from The Empire District Electric Company Case No. ER-2004-0570, page 51, the Commission stated:

> The record shows that generation plants tend to remain in service indefinitely under present conditions and that this is likely to continue to be the case in the future. For these reasons, the Commission will reject the reduced service lives sponsored by Empire in favor of the longer lives produced through the use of Iowa Curves as advocated by Staff and Public Counsel. The Commission concludes that the estimated retirement dates relied upon by Roff are simply not persuasive.

Q. Is there anything about how AmerenUE arrived at the retirement dates Mr. Weidmayer uses in AmerenUE's 2005 Study that makes them more persuasive than the retirement dates Empire District Electric Company used in the study it relied on in Case No. ER-2004-0570 for its generation plant?

A. No. In the AmerenUE's 2006 Capacity Balance Spreadsheet attached to this testimony as Schedule 1, AmerenUE has not presented any plans to eliminate generation capacity, a condition that shows retirement of plant is forthcoming.

The Commission's Electric Resource Planning Chapter (Chapter 22) requires Missouri investor-owned electric utilities to use a 20 year planning horizon (4 CSR 240-22.020(43)). In its most recent Chapter 22 compliance filing, Ameren UE did not discuss any plans to retire any of its generating units in the 20 year planning horizon ending in 2024. If indeed AmerenUE expects to retire its Meramec units in 2021, its planning process should have taken this retirement date into account. The planning process should have also taken into account any construction plans for new plant that would replace the generating capacity for Sioux,

which is estimated by Ameren UE to be retired in 2027. Please refer again to Schedule 1. Further, the Commission just approved AmerenUE's Electric Resource Plan on February 8, 2007, in Case No. EO-2006-0240.

Q. Have the retirement dates AmerenUE proposes for its steam production plant changed over time?

A. Yes. For the depreciation study it filed with the direct testimony of its witnesses in this case, AmerenUE used 2026 as the date for the retirement of all its steam production plant based on the assumption that, on average, the steam production plants would be retired that year. In the rebuttal testimony of AmerenUE witness Mark Birk, AmerenUE provides separate retirement dates for each of steam production plant. In the last case where AmerenUE's electric rates were examined, Case No. EC-2002-1, AmerenUE used a different set of retirement dates for each of those plants.

The table following shows the steam production plant retirement dates AmerenUE has proposed in this case and in Case No. EC-2002-1.

RETIREMENT DATES			
	2000 Study EC-2002-1	**2005 Study ER-2007-0002 Weidmayer Direct**	**(Revised) 2005 Study ER-2007-0002 Birk Rebuttal**
Meramec	2016	2026	2021
Sioux	2018	2026	2027
Labadie	2023	2026	2033
Rush Island	2027	2026	2037
Osage	2031	2036	2046
Taum Sauk	2010	2036	2036

I have attached as Schedule 2 the proposed AmerenUE Retirement Dates from the 2000 Study.

Q. John Wiedmayer states in his Rebuttal Testimony, pg. 7 lines 6-7, "I calculated the theoretical reserve by account and compared it with the book reserve and determined the reserve variance that I recommended be amortized over the remaining life of the account." Do you agree with this treatment of the imbalance of the reserve?

A. No. Mr. Wiedmayer is taking his estimated reserve variance for each account and using his remaining life estimation to determine the annual amortization true up to the original cost of plant in service. The Staff does not find AmerenUE's theoretical reserve to be valid due to the inclusion of additional depreciation parameters as discussed above. The Staff would use the straight-line whole life technique to calculate the theoretical reserve. If the whole-life technique is used, the theoretical reserve calculation supported by the Staff shows the depreciation reserve is over accrued by $722 million. However, the Staff is not proposing a negative amortization associated with this for Staff's cost-of-service calculation.

Licensed Plant

Q. On page 4, lines15-17, Mr. Weidmayer states, "In addition, she[, referring to you,] elected not to estimate life spans for steam and hydro power plants even though she did use the life span approach and estimated a retirement date for the Callaway Nuclear Plant." Would you explain why Staff did not use the same basis for the lives of property at AmerenUE's hydro-electric plants that it used for AmerenUE's Callaway nuclear plant?

A. Taum Sauk and Osage are regulated by the FERC (Federal Energy Regulatory Commission), which may issue an original license for up to 50 years for constructing, operating, and maintaining jurisdictional projects. When a license expires, the Commission can issue a new license (relicense) to either the existing licensee or a new licensee for a period of 30 to 50 years. Osage has been in operation since 1931. For most Hydraulic Power plants,

the design life far exceeds the licensed life. Nearly all hydro components have very long lives compared to most other industrial assets. During most of the plant life, components require minimal maintenance. Although Osage was granted a 40 year operating license expiring in 2046, the plant has the capability to last even longer.

The design life of Osage far exceeds any licensing period, has been used to generate electricity since 1931, and unlike a nuclear plant, does not have the issue of nuclear radiation. Further, due to the value of The Lake of the Ozarks for recreation, it is improbable the operating life of Osage will be determined by its license. Like Osage, Taum Sauk has been operated by AmerenUE for a considerable amount of time, since 1963, it is so valuable to Ameren UE for generation it has used Taum Sauk heavily and plans to repair or rebuild it, and Taum Sauk does not have the issue of nuclear radiation.

Callaway is regulated by the NRC (Nuclear Regulatory Commission), which initially granted 40 year operating licenses for all US. Nuclear power plants, and is now granting 20-year extensions. In the absence of a history of how long these types of nuclear plants operate and the uncertainty the license would be renewed, in the past Staff has used Callaway's licensed life for depreciation purposes. In summary, nuclear generation does not have the operating history that hydro-electric plants have.

For all the foregoing reasons, Staff does not believe AmerenUE's FERC operating license for Osage or Taum Sauk define the operating lives of these plants.

Q. Does this conclude your testimony?

A. Yes it does.

MATHIS

SCHEDULE 1

DEEMED

HIGHLY CONFIDENTIAL

IN ITS ENTIRETY

AmerenUE

Table A. Estimated Survivor Curve, Net Salvage, Original Cost, Calculated Annual and Accrued Depreciation Related to Electric Plant at December 31, 2000

Depreciable Group	Probable Retirement Year	Estimated Survivor Curve	Net Salvage Percent	Original Cost at 12/31/00	Annual Accrual Amount	Annual Accrual Rate	Calculated Accrued Depreciation
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(5)	(8)
DEPRECIABLE ELECTRIC PLANT							
Steam Production Plant							
Meramec Steam Production Plant							
311 Structures & Improvements	6-2016	120 - S0	(26)	24,978,693	784,137	3.14	19,635,027
312 Boiler Plant Equipment	6-2016	60 - S0	(26)	224,005,887	11,069,220	4.94	119,897,684
314 Turbogenerator Units	6-2016	100 - S0	(26)	59,588,018	2,189,318	3.67	42,160,539
315 Accessory Electrical Equipment	6-2016	80 - R2	(26)	16,201,300	536,329	3.31	12,398,234
316 Miscellaneous Power Plant Equipment	6-2016	70 - L0	(26)	10,069,612	578,324	5.74	4,220,274
Total Meramec Steam Production Plant				334,843,510	15,157,328		198,311,758
Sioux Steam Production Plant							
311 Structures & Improvements	6-2018	120 - S0	(24)	21,645,069	803,646	3.71	13,088,438
312 Boiler Plant Equipment	6-2018	60 - S0	(24)	263,913,356	13,097,676	4.96	110,473,939
314 Turbogenerator Units	6-2018	100 - S0	(24)	61,108,814	2,965,868	4.85	24,990,716
315 Accessory Electrical Equipment	6-2018	80 - R2	(24)	17,025,944	687,480	4.04	9,395,231
316 Miscellaneous Power Plant Equipment	6-2018	70 - L0	(24)	6,991,571	354,675	5.07	2,869,796
Total Sioux Steam Production Plant				370,684,754	17,909,345		160,818,120
Venice Steam Production Plant							
311 Structures & Improvements	6-2010	120 - S0	(60)	21,235,218	707,711	3.33	27,391,669
312 Boiler Plant Equipment	6-2010	60 - S0	(60)	31,178,630	2,409,889	7.73	27,741,877
314 Turbogenerator Units	6-2010	100 - S0	(60)	18,712,812	866,202	4.63	21,883,710
315 Accessory Electrical Equipment	6-2010	80 - R2	(60)	8,339,624	302,287	3.62	10,576,102
316 Miscellaneous Power Plant Equipment	6-2010	70 - L0	(60)	1,866,991	164,617	8.82	1,475,378
Total Venice Steam Production Plant				81,333,275	4,450,706		89,068,736

AmerenUE

Table A. Estimated Survivor Curve, Net Salvage, Original Cost, Calculated Annual and Accrued Depreciation Related to Electric Plant at December 31, 2000

Depreciable Group		Probable Retirement Year	Estimated Survivor Curve	Net Salvage Percent	Original Cost at 12/31/00	Annual Accrual Amount	Annual Accrual Rate	Calculated Accrued Depreciation
(1)		(2)	(3)	(4)	(5)	(6)	(7)=(6)/(5)	(8)
Labadie Steam Production Plant								
311	Structures & Improvements	6-2023	120 - S0	(26)	56,716,268	1,854,110	3.27	31,040,762
312	Boiler Plant Equipment	6-2023	60 - S0	(26)	518,020,274	19,338,305	3.73	258,660,350
314	Turbogenerator Units	6-2023	100 - S0	(26)	117,004,319	3,503,691	2.99	72,336,595
315	Accessory Electrical Equipment	6-2023	80 - R2	(26)	46,000,375	1,461,561	3.18	26,413,142
316	Miscellaneous Power Plant Equipment	6-2023	70 - L0	(26)	13,835,423	570,905	4.13	5,784,592
Total Labadie Steam Production Plant					751,576,659	26,728,572		394,235,441
Rush Island Steam Production Plant								
311	Structures & Improvements	6-2027	120 - S0	(28)	51,766,569	1,435,304	2.77	29,789,985
312	Boiler Plant Equipment	6-2027	60 - S0	(28)	269,627,918	8,962,586	3.32	136,853,806
314	Turbogenerator Units	6-2027	100 - S0	(28)	88,894,762	2,469,746	2.78	52,161,743
315	Accessory Electrical Equipment	6-2027	80 - R2	(28)	19,803,864	570,195	2.88	10,999,090
316	Miscellaneous Power Plant Equipment	6-2027	70 - L0	(28)	7,549,962	287,495	3.81	2,897,354
Total Rush Island Steam Production Plant					437,643,075	13,725,326		232,701,978
312.03	Boiler Plant Equipment - Aluminum Coal Cars		22 - R3	30	121,206,826	3,860,437	3.18	18,828,827
Total Steam Production Plant					**2,097,288,099**	**81,831,714**		**1,093,964,860**
Nuclear Production Plant								
321	Structures & Improvements	10-2024	100 - R1	0	861,027,196	23,400,323	2.72	326,157,003
322	Reactor Plant Equipment	10-2024	60 - S0	0	844,170,129	24,567,061	2.91	315,703,567
323	Turbogenerator Units	10-2024	100 - S0	0	432,899,896	11,691,431	2.70	166,141,262
324	Accessory Electrical Equipment	10-2024	80 - R2	0	229,190,440	6,118,382	2.67	88,509,747
325	Miscellaneous Power Plant Equipment	10-2024	70 - L0	0	139,515,002	4,462,723	3.20	43,667,544
Total Nuclear Production Plant					**2,506,802,663**	**70,239,920**		**940,179,123**

AmerenUE

Table A. Estimated Survivor Curve, Net Salvage, Original Cost, Calculated Annual and Accrued Depreciation Related to Electric Plant at December 31, 2000

Depreciable Group	Probable Retirement Year	Estimated Survivor Curve	Net Salvage Percent	Original Cost at 12/31/00	Annual Accrual Amount	Annual Accrual Rate	Calculated Accrued Depreciation
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(5)	(8)
Hydraulic Production Plant							
Osage Hydraulic Production Plant							
331 Structures & Improvements	2-2031	160 - R1	(10)	3,183,095	87,245	2.74	947,735
332 Reservoirs, Dams, & Waterways	2-2031	200 - SQ	(20)	23,853,503	405,188	1.70	16,366,855
333 Water Wheels, Turbines, & Generators	2-2031	130 - S0	(10)	13,509,670	297,215	2.20	6,298,733
334 Accessory Electrical Equipment	2-2031	70 - R1.5	0	3,231,015	88,387	2.74	804,012
335 Miscellaneous Power Plant Equipment	2-2031	60 - R0.5	0	963,826	27,017	2.80	258,824
336 Roads, Railroads, & Bridges	2-2031	200 - SQ	0	77,445	1,042	1.35	46,008
Total Osage Hydraulic Production Plant				44,818,554	906,094		24,722,167
Keokuk Hydraulic Production Plant							
331 Structures & Improvements	6-2013	160 - R1	(10)	3,745,609	137,580	3.67	2,423,897
332 Reservoirs, Dams, & Waterways	6-2013	200 - SQ	(20)	11,865,003	407,318	3.43	9,146,867
333 Water Wheels, Turbines, & Generators	6-2013	130 - S0	(10)	17,663,391	819,377	4.64	9,303,141
334 Accessory Electrical Equipment	6-2013	70 - R1.5	0	2,954,027	73,921	2.50	2,083,911
335 Miscellaneous Power Plant Equipment	6-2013	60 - R0.5	0	1,589,662	83,875	5.28	590,724
336 Roads, Railroads, & Bridges	6-2013	200 - SQ	0	29,167	510	1.75	22,776
Total Keokuk Hydraulic Production Plant				37,846,859	1,522,581		23,571,316
Taum Sauk Hydraulic Production Plant							
331 Structures & Improvements	7-2010	160 - R1	(10)	6,258,100	256,641	4.10	4,449,773
332 Reservoirs, Dams, & Waterways	7-2010	200 - SQ	(20)	22,105,906	583,305	2.64	20,929,121
333 Water Wheels, Turbines, & Generators	7-2010	130 - S0	(10)	34,890,632	2,398,897	6.88	15,521,950
334 Accessory Electrical Equipment	7-2010	70 - R1.5	0	2,019,479	56,641	2.80	1,495,337
335 Miscellaneous Power Plant Equipment	7-2010	60 - R0.5	0	514,225	23,249	4.52	300,488
336 Roads, Railroads, & Bridges	7-2010	200 - SQ	0	45,570	1,136	2.49	34,689
Total Taum Sauk Hydraulic Production Plant				65,833,912	3,319,869		42,731,358
Total Hydraulic Production Plant				**148,499,325**	**5,748,544**		**91,024,841**