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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2010-0036

REBUTTAL TESTIMONY

OF

JOHN F. WIEDMAYER C.D.P.

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a AmerenUE

Audubon, Pennsylvania
February, 2010

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REBUTTAL TESTIMONY OF JOHN F. WIEDMAYER

CASE NO. ER-2010-0036

I. INTRODUCTION

A. Witness Identification

Q. Please state your name and address.

A. John F. Wiedmayer. My business address is Valley Forge Corporate Center, 1010 Adams Avenue, Audubon, Pennsylvania 19403.

Q. Have you previously submitted testimony in this proceeding?

A. Yes. My direct testimony was submitted in July 2009.

B. Purpose and Scope

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. The purpose of my testimony is to respond to the direct testimony of other parties regarding depreciation matters. Specifically, I respond to the direct testimony of Mr. Arthur Rice of the Staff of the Missouri Public Service Commission ("Staff") and Mr. James Selecky on behalf of the Missouri Industrial Energy Consumers ("MIEC").

C. Identification of Schedules

Q. Will you be sponsoring any schedules with your rebuttal testimony?

A. Yes, I am attaching and sponsoring the following schedules:

- Schedule JFW-ER8 – Average Depreciation Rate for Investor-Owned Electric Utilities in the US
- Schedule JFW-ER9 – Comparison of Annual Depreciation Using Life Spans and Annual Depreciation Assuming Indefinite Life
- Schedule JFW-ER10 – Average Service Lives of Current Steam Production Plant in Service Based on No Future Interim Activity
- Schedule JFW-ER11 – Average Service Lives for Steam Production Plant Accounts Based on Projected Interim Addition and Retirement Activity

- Schedule JFW-ER12 - Revised Summary Depreciation Schedules

- Schedule JFW-ER13 – Comparison of AmerenUE, Staff and MIEC Net Salvage with Experienced Net Salvage Percents

- Schedule JFW-ER14 – Corrected Net Salvage Accruals for AmerenUE Transmission and Distribution Plant Accounts

- Schedule JFW-ER15 – Comparison of Future Estimated Net Salvage Costs and Net Salvage Accrual – MIEC Derived Net Salvage Estimates

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- Schedule JFW-ER17 – Comparison of Future Estimated Net Salvage Costs and Net Salvage Accrual – AmerenUE Proposed Net Salvage Estimates

- Schedule JFW-ER18 – AmerenUE Infrastructure Investment vs. Depreciation and Amortization Expense

II. SUMMARY OF TESTIMONY

A. Summary of Positions

Q. Please summarize the positions of the witnesses you are rebutting as compared to AmerenUE's position.

A. Mr. Rice proposes to reduce the Company's proposed level of annual depreciation expense by $17.486 million.[1] These reductions arise from the following principal issues:

- Mr. Rice's treatment of the Company's Steam Production Plant as "mass property" (like poles and wires) and not as life span property;

- Mr. Rice's over-estimation of net salvage for Account 312.03, Aluminum Coal Cars;

[1] This $17.486 million figure will be reduced by approximately $1.08 million in view of my agreement with Mr. Selecky's change in certain net salvage percentages discussed later in this testimony.

- Mr. Rice's use of inappropriate service lives for Account 356, Overhead Conductors and Devices, and Account 369.02, Underground Services; and

- Mr. Rice's inappropriate service life estimates for Accounts 341 to 345 (other production plant accounts).

Mr. Selecky proposes to reduce the Company's proposed annual depreciation expense by $79.485 million.[2] These reductions arise from the following principal issues:

- Mr. Selecky's treatment of the Company's Steam Production Plant as "mass property" (like poles and wires) and not as life span property [similar to Mr. Rice][3];

- Mr. Selecky's over-estimation of net salvage for Account 312.03, Aluminum Coal Cars [a greater overestimation than that of Mr. Rice];

- Mr. Selecky's inappropriate service life estimates for Accounts 341 to 345 (other production plant accounts) [a greater overestimation than that of Mr. Rice];

- Mr. Selecky's exclusion of actual plant retirements made at the Callaway Plant in developing his life and net salvage estimates for Account 322, Reactor Plant Equipment [Mr. Rice does not take this position] (a $5 million difference);

- Mr. Selecky's examination of interim retirements only in developing his average service lives for the Company's Steam Production Plant [Mr. Rice does not take this position]; and

- Mr. Selecky's decision to essentially use the "expense" method of handling net salvage for transmission and distribution plant accounts versus use of the traditional, accrual method addressed in detail by the Commission in its early-2005 decision involving Laclede Gas Company [Mr. Rice does not take this position] (a $35 million difference).

[2] Accounting for my agreement with Mr. Selecky regarding certain net salvage percentages and other minor differences, I calculated the difference to be $80.7 million.

[3] Mr. Selecky also has a "fallback" position whereby he sponsors depreciation rates for the Company's Steam Production Plant if the Commission does use the life span approach, as I recommend. If his fallback position were adopted, his total reduction to the depreciation expense I propose would fall from $79.485 million to $54.7 million.

Q. How do the depreciation expense levels recommended by you, Mr. Rice, and Mr. Selecky compare to current depreciation expense levels?

A. My depreciation study concludes that a $23.4 million or 7.3% increase[4] to depreciation expense over currently approved levels is necessary to properly recover the service value of the Company's depreciable plant over its service life.[5] Most of the Company's proposed increase is related to steam production plant, which currently is being depreciated using some of the lowest depreciation rates in the country.

In comparison, Staff witness Rice proposes a $7.0 million or 2.2% increase above current depreciation expense, while MIEC witness Mr. Selecky proposes a $55.0 million or 17.2% decrease to currently approved levels.

Q. How do the current AmerenUE depreciation rates, AmerenUE's proposed depreciation rates, those proposed by the Staff, and those proposed by MIEC compare with depreciation rates approved for other electric utilities in the U.S.?

A. As shown in Schedule JFW-ER8, AmerenUE's existing depreciation rates are quite low relative to their peer group – below the 25th percentile. AmerenUE's proposed rates would move them out of the bottom 25th percentile but they would still remain well below the 50th percentile. Staff's proposed rates would put the Company at just above the 20th percentile while Mr. Selecky's proposed rates are virtually off the chart, and would put AmerenUE's depreciation rates among the absolute lowest in the U.S.

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[4] These figures are slightly lower than the figures in my depreciation study because I am in agreement with Mr. Selecky on one minor issue (changing the net salvage percentages for Account 322, Reactor Plant).

[5] As discussed in my direct testimony (in particular at pages 6-7), the Uniform System of Accounts *requires* that utilities use a method of depreciation that allocates in a systemic and rational manner the service value of depreciable property over its service life.

B. Summary of Rebuttal Points

Q. What specific points will you be rebutting?

A. I will rebut the following specific points:

1. The use of a mass property approach versus a life span approach by Messrs. Rice and Selecky.

2. The use of net salvage estimates that are too high by Messrs. Rice and Selecky.

3. Mr. Rice's inappropriate service lives for overhead conductors and devices and underground services.

4. The use of inappropriate service lives by Messrs. Rice and Selecky for Account Numbers 341-345.

5. Mr. Selecky's exclusion of the steam generator retirements at the Callaway Plant from his Callaway Plant life and net salvage analyses.

6. My agreement with Mr. Selecky's change in the net salvage percentages to be used for Account Numbers 341 to 345.

7. Mr. Selecky's "fallback" position regarding the use of the life span approach for all of the Company's production plant accounts, and two additional adjustments he proposes if the life span approach is used.

8. Mr. Selecky's adjustments to my proposed depreciation expense for the Company's transmission and distribution plant.

III. RESPONSE TO MESSRS. RICE'S AND SELECKY'S USE OF THE MASS PROPERTY APPROACH FOR STEAM PRODUCTION AND HYDRO PLANT[6]

A. Estimation of Power Plant Life Spans

[6]Both Mr. Rice and Mr. Selecky used similar approaches to calculate depreciation related to Steam Production and Hydro Plant. Neither witness uses the life span approach for Steam Production and Hydro Plant while both use the life span approach for Nuclear. In general, Mr. Selecky estimated average service lives that are 25 to 50 percent longer than even those proposed by Mr. Rice for steam plants, and both of their life estimates are far beyond the typical range of lives used for setting depreciation rates for other electric companies. Both Staff and MIEC also base their average service life estimates on insufficient historical data. Mr. Rice's life analyses included the final retirements of four steam plants while Mr. Selecky bases his life estimates on historical data that does not include even one plant that has lived its full life cycle.

Q. Have you reviewed the direct testimony of Staff Witness Rice and MIEC witness Selecky regarding the treatment of Steam Production Plant?

A. Yes, I have.

Q. Has Mr. Rice conducted a recent service life and net salvage study?

A. Yes. The depreciation study that he prepared included a service life and net salvage study based on electric plant in service through December 31, 2008.

Q. What is the major difference between the depreciation study prepared by you for AmerenUE and the depreciation study prepared by Mr. Rice?

A. The most significant difference occurs in Steam Production Plant. AmerenUE has calculated depreciation for Steam, Nuclear and Hydraulic Production Plant using the life span approach while the Staff (and MIEC) treated the investment in those accounts as mass plant accounts using longer service lives for the most part.

Q. What is the key difference between the life span and mass property approaches?

A. The mass property approach used by Messrs. Rice and Selecky uses a single survivor curve to describe the survivor characteristics for all vintages (i.e., all installation years) within an account. Thus, they assume that a boiler component installed 10 years before the power plant is retired will last exactly as long as one installed 50 years before the power plant is retired. Effectively, this approach assumes power plants have infinite life spans. Of course, we know this cannot be true.

Q. Why can this not be true?

A. All power plants have a finite life and will be retired on a specific date in the future. All assets associated with the plant regardless of their age or condition will be retired concurrently. These retirements are termed final retirements. The final retirement for the Venice II Steam Plant, in 2002, occurred in such fashion. Assets added with the initial construction of the Venice Plant in 1942 were retired in 2002, as were assets that were added in 2001. This type of interim retirement and final retirement activity that occurs at facilities such as a power plant is unique and therefore such a facility should not be treated like mass assets.

Life span property is fundamentally different from mass plant property. For example, each year AmerenUE adds thousands of poles, meters, and line transformers. While these individual mass plant assets may be retired at any age (e.g., at ages 1 through 40 or more) due to damage from accidents or lightning strikes, all of these assets' lives are mostly independent from one another and each has an opportunity to last its full expected life cycle when installed. That is not the case with assets that are added at power plants. The lives of the assets are dependent on the life of the facility.

The life span approach recognizes this reality, that is, that at some future date the Steam Production Plants will be retired and that they do not have infinite life spans.

Q. Please define the term "mass property" more specifically.

A. The term "mass property" is used to describe the units of property, such as poles, overhead conductors, meters, line transformers, etc., that are installed and retired each year by a utility. Typically, the service lives experienced by these property units are independent of one another and they are generally replaced when their condition has deteriorated beyond an appropriate level or when they have failed.

Q. Please define the term "life span" property more specifically.

A. The term life span property is used to describe a group of property comprised of individual property units that will be retired concurrently. Examples of life span property are power plants which are comprised of numerous property units such as buildings, turbines, generators, and other electrical equipment used to generate electrical power. A characteristic of life span property is that the service lives of the property units are dependent on the overall life of the facility. That is, all of the property units in service shortly before the power plant's ultimate retirement will be retired concurrently regardless of the age of the units in service at the time the facility is retired because the property units in service at the power plant are no longer useful once the plant shuts down.

Q. What reason does Mr. Rice state for treating steam plants as mass plant property?

A. Mr. Rice on page 104 of his direct testimony states, "Staff recommends treatment of steam plant as Mass Property because it removes the reliance on uncertain predictions of future retirement dates for specific sites, or steam units, that is implicit in the life span treatment."

Q. Do you agree with Mr. Rice's rationale?

A. No, I do not. Reasonable estimates can be made and have been made in this proceeding regarding when a steam plant is to be retired. Further, those estimates can be monitored and modified periodically (which I am sure is one of the reasons the Commission requires new depreciation studies at least every five years) so that current information is considered when estimating a probable retirement date for a steam plant. It is much more reasonable to assume that a power plant will be retired at a specific date in the future than to assume that the plant will operate infinitely into the future as Messrs. Rice and Selecky do. In addition, power plants are classic examples used to describe life span property and thus should be depreciated in accordance with the life span approach. Missouri is the *only* state of which I am aware that does not use the life span approach in determining depreciation rates for steam production accounts.

Q. What is Mr. Selecky's rationale?

A. Mr. Selecky states that his use of the mass property approach is "consistent with the Commission's finding" in Case No. ER-2007-0002 (Selecky direct, p. 6, line 15), and he also cites to Commission statements in its order in that case regarding the estimated retirement dates used in that case (Selecky direct, p. 12).

Q. Do you agree with Mr. Selecky's rationale and characterization of the Commission's order in Case No. ER-2007-0002?

A. No, I do not. The life estimates used in that case were not based upon the kind of comprehensive study reflected in Black & Veatch's analysis (discussed further below) in this case, which specifically took into account construction times needed to replace retired steam production capacity. The Commission recognized in that case that at some point the plants will be retired (Report and Order, Case No. ER-2007-0002, p. 84), and rejected use of the life span approach in that case based upon its evaluation of the evidence *in that case: "Without better evidence* of when those plants are likely to be retired ...." increasing depreciation rates by using the life span approach would be speculative. *Id.* (emphasis added). This does not mean that the Commission has forever found that the life span approach is inappropriate, as Mr. Selecky seems to suggest.

Q. Please describe the life span approach in more detail.

A. The life span approach is a refinement of the calculations performed by Messrs. Rice and Selecky. Instead of using one average service life (i.e., instead of assuming a plant component installed in 2000 will provide service for the same span of time as a plant component installed in 1970), the life span approach uses a different average service life for each "vintage," or year of installation.

Q. How did you estimate the life characteristics, including the final retirement dates of Steam, Nuclear and Hydraulic Production Plant?

A. I estimated the life characteristics of Steam, Nuclear and Hydraulic Production Plant using the life span approach. I estimated an interim survivor curve for each account based on retirement rate analyses of interim retirements and the interim survivor curves estimated for other electric utilities.

I estimated the final retirement dates based on informed judgment incorporating the outlook of management and a consideration of both the life spans of retired stations and units and the estimates of others for units currently in service. AmerenUE engaged Black & Veatch, a leading global consulting, engineering, and construction company with practice areas specializing in power generation, to develop informed estimates of the life spans for the four coal-fired steam plants. Black & Veatch has prepared a report of their findings and estimated retirement dates for AmerenUE's four coal-fired power plants.[7] The estimated retirement dates shown in the Black & Veatch report on Table 1.1 are based upon a consideration of relevant factors used to estimate the life spans of steam plants. Some of the factors considered include: 1) age and condition of the plant; 2) life span estimates used by other electricity generating companies; 3) industry experience with retired steam plants and those currently in service; 4) future major refurbishments including expenditures related to environmental compliance; and 5) design life of major components of the boiler and steam systems. I reviewed the life spans and estimated final retirement dates contained in the Black & Veatch report and

[7] See the Direct Testimony of AmerenUE witness Larry W. Loos and the attached Report, filed on July 24, 2009.

determined that their findings and conclusions were sound and the estimates were reasonable to use for depreciation purposes.

The estimated final retirement dates for each generating facility are set forth on pages III-4 through III-6 of Schedule JFW-E1, which is attached to my direct testimony. The final retirement dates for Nuclear and Hydro were set to coincide with their expected license expiration dates. The FERC operating license at the Osage Plant was recently renewed for an additional 40 years. I expect a similar extension for the Taum Sauk Plant, and have estimated that Keokuk will remain in service for an additional 47 years. The operation of the hydro facilities is expected to occur well out into the foreseeable future. The hydro plants may remain in service beyond the expiration of their operating license; however, I believe it is reasonable to seek recovery of the undepreciated portion of these plants over the next 40 years or so.

Q. Do authoritative texts on depreciation support your conclusion that the service value of power plants should be allocated based on the use of the life span approach?

A. Yes, they do. Authoritative texts on the subject of depreciation support the use of the life span approach for power plants. *Public Utility Depreciation Practices*, published in 1996 by the National Association of Regulatory Utility Commissioners, states:

Life span property generally has the following characteristics:

1. Large individual units,
2. Forecasted overall life or estimated retirement date,
3. Units experience interim retirements, and
4. Future additions are integral part of initial installation.

> The following classes of utility property may be most appropriately studied under this method, taking into consideration the availability of plant accounting data, and particularly the number of units of property involved: buildings, *electric power plants*,... [8] (emphasis added).

In the leading textbook on depreciation accounting, *Depreciation Systems,* written by Dr. Frank Wolf and Dr. Chester Fitch, there is an entire chapter dealing with life span property and how that property should be depreciated, which includes a discussion of why life span property is different than mass property.

Depreciation Systems states:

> Depreciation professionals use the term life span to describe both a unit of property and a group of property that will be retired as a unit. Examples of a unit of property are a hydroelectric dam or the building housing electrical generating equipment. Examples of a group of property that will be retired as a unit include the turbines, generators, and other equipment used to generate electrical power and housed in either the dam or building. The dispersion pattern of retirements from a group of life span property differs from the pattern of other (mass) property, because much of the life span property is retired simultaneously (unlike mass property). The resulting survivor curve is truncated (and instantaneously reaches zero percent surviving) rather than gradually curving to zero percent surviving. It is not unusual for life span groups to account for a significant portion of the total plant. They require special consideration when coding retirements, describing life characteristics, forecasting life and salvage, and calculating accruals for depreciation.[9]

Q. Should the absence of a date certain for the retirement of a facility preclude the use of an estimate of this date in the determination of depreciation?

A. No, it should not. The use of a life span for each power plant is far preferable to the flawed and unrealistic assumption that these plants will operate forever and have an infinite life. We know that the plants do not have infinite lives, but we do not know for ***certain*** when their finite lives will end. So, should we do what we know is

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[8] Public Utility Depreciation Practices. Page 141. National Association of Regulatory Utility Commissioners. 1996.

[9] Depreciation Systems, Wolf, Frank K. and W. Chester Fitch. Page 255. Iowa State University Press. 1994.

wrong or should we use informed judgment and analysis to estimate when the final retirement of the plant will occur? My answer to this question is that we should use informed judgment and incorporate appropriate analyses in the same manner that we do for mass property whose retirement dates are not certain either.

Q. Do other state commissions allow the use of the life span procedure for determining the annual depreciation rates for power plant accounts?

A. Yes. Gannet Fleming performs depreciation studies for utilities in virtually every state. I am aware of no other state commission that fails to recognize that power plants are life span property. The mainstream approach is to allow the use of the life span procedure in the determination of annual depreciation rates for power plants similar to the treatment used at the Callaway Plant. While it is true that the Callaway Plant has an operating license, it is not certain that the Callaway Plant's life will extend to the license expiration date, or that a further renewal of the license will not occur. Indeed, the Company's depreciation rates for the Callaway Plant today are already set based upon an assumed license renewal that has not yet occurred.

Q. Which of these two approaches, that is the use of a life span that may change or the assumption of infinite life span, is fairer to customers?

A. The use of a life span based on informed judgment that is periodically reassessed is far more equitable than the assumption of a plant having an infinite life. The assumption of infinite life spans caused by treating power plants as mass property results in the deferral of an enormous amount of depreciation expense until the last several years of a plant's life when the precise date of retirement becomes certain. The recovery of such a large amount of depreciation expense in the final few years of a plant's life is not fair to the customers at that time because they will pay a much too high level of depreciation expense, yet they will be served by the plant for only a short time. The use of a life span that may turn out to be incorrect to some degree creates far smaller inequities and does a far better job of recovering the right amount of depreciation from each generation of customers and over the actual service life of the plant. This is the fundamental goal of depreciation.

Q. Please provide an example to demonstrate that the life span approach is far more equitable than treating generation plant accounts as mass property.

A. I have prepared a simple two-installation year example and presented it in Schedule JFW-ER9 in both tabular and graphical forms. In the example, a power plant is installed in 1970 at a cost of $50,000,000. It is estimated at that time that the plant will live for 45 years. During that period, interim retirements will occur in accordance with the 60-O1 survivor curve.[10] I selected the 60-O1 for simplicity as the amount of interim retirements depicted on the curve is the same each year and the original cost balance and related depreciation accruals are more easily determined. In the year 2000, the example assumes the plant requires additional facilities to meet regulatory requirements and, given its age, that it is completely rehabilitated at a total cost of $100,000,000. As a result of this work, it is now expected that the plant will live another 30 years for a total life span of 60 years (from 1970 to 2030).

I have calculated the depreciation expense for the example using three different assumptions about the life span estimate. The first example, in columns 2 through 5, assumes that the depreciation analyst knew in 1970 that the plant would have a 60-year

[10] As discussed in my direct testimony and the depreciation study attached thereto as Schedule JFW-E1, survivor curves are used by depreciation analyst to describe the rates of retirement for particular types of industrial (in this case utility) plant.

life span. The second example, in columns 6 through 9, assumes that the depreciation analyst estimated a 45-year life span in 1970 inasmuch as it was unknown whether extensive rehabilitation would be performed in the future enabling the extension of the plant's life span. In this example, the estimate is revised to a 60-year life span once the plant is completely rehabilitated in 2000. The third example, in columns 10 through 13, assumes that the depreciation analyst does not estimate a life span but rather estimates a 60-year average service for the plant with an infinite life span. In the third example, the analyst does not revise the depreciation estimates to reflect the final retirement of the plant until retirement becomes a virtual certainty – i.e., not until five years before it is retired.

Q. What do the three examples demonstrate?

A. As the graph on page 2 of 2 of Schedule JFW-ER9 illustrates, these examples demonstrate that it is far more equitable and accurate to estimate a life span, even if it is significantly less than the actual life span determined with hindsight, than to assume that the plant has an infinite life. As one can see from the graph, using the Staff's and MIEC mass property approach means far too much of the depreciation expense is back-loaded to customers who will only take service from the plant for a short time near the end of its life. By contrast, using reasonable, informed estimates of the retirement date throughout the plant's life spreads the depreciation expense out across generations of customers in a much more equitable manner so that customers who benefit from the service life of the plant ratably pay the depreciation (the loss of service value) of the plant over its life.

Page 1 of Schedule JRW-E9 demonstrates this using the dollars upon which the graph on page 2 was built. As one can see, during the first thirty years (1970 to 2000) of the plant's life, the accruals should be approximately $29 million as shown in the first row of column 4 of the tabulation on page 1. If a 45-year life span estimate is used, the accruals exceed this amount by nearly $7 million (column 8 as compared to column 4). If an infinite life span is assumed for the plant, the accruals are less than they should be by a little more than $7 million (column 12 as compared to column 4). Although these variances are significant, they pale in comparison to the variances that occur once the rehabilitation occurs in 2000.

The variances that occur between 2000 and 2025 after the rehabilitation are greater because the infinite life span assumption is applied to the $100,000,000 addition made in 2000 just as it was applied to the original installation cost of $50,000,000. In other words, because of the mass property treatment (like that used by Messrs. Rice and Selecky) both the original investment and the $100,000,000 investment made 30 years later are assumed to have an *average* life of 60 years at the time of installation.

In contrast, the use of the life span procedure restricts the life of the later (2000) addition since it is obvious that it cannot live beyond the retirement of the entire plant itself. Instead, both the original installation and the 2000 addition will be retired at the same time, which necessarily means that the average life of the 2000 addition will be much less than the average life of the initial installation.

The example illustrates this difference. During the twenty-five years after the rehabilitation (2000-2025), the use of the 60-year life span results in depreciation accruals of approximately $100 million, as shown in the second row, columns 4 and 8 of the tabulation. However, the accruals under the infinite life span assumption are only $50 million, about *half of* what they need to be (see the second row, column 12). As a result of the under-accruals that are produced by the infinite span life assumption, when it is learned in 2025 that the plant will be retired in 2030, the entire remaining unrecovered original cost of $77 million (see the third row, column 12) must be collected in only five years! As shown in the third row of columns 5 and 9, using the life span approach means customers served from 2025 to 2030 pay annual depreciation of between approximately $3.2 and $3.5 million, versus annual deprecation of approximately 4.5 times that much (approximately $15.4 million) if the infinite life span assumption is used (see the third row, column 13). Looked at another way, by assuming an infinite life for the plant, *over half* of the plant's original cost must be accrued during just the last five years of its 60-year life span.

Consequently, it is clear that the inequity that results from a life span estimate that is too short is far less than the inequity that results from assuming an infinite life span until the time when the plant's retirement date is certain - five years before it is retired. Thus, informed estimates of life spans should be used in calculating the annual depreciation for power plants and other life span property. Assuming an infinite life span for a power plant will require the customers that use the plant near the end of its life to pay a grossly disproportionate proportion of the plant's original cost. In other words, customers served by the plant during the earlier parts of its life pay *too much*; customers served by the plant towards the end of its life pay *too little*.

Q. Is it appropriate to describe the life characteristics of power plants with the use of a single average survivor curve for each account?

A. No, it is not. For life span property, the average service life of each year of installation is indisputably different. Using just a single survivor curve ignores this obvious fact. The closer the installation is to the date of the plant's final retirement, the shorter is the average life. As I described on page 23 of my direct testimony, the use of a single average survivor curve for all of the installation years at a power plant, given the variation in life for each year of installation, does not properly allocate the original cost to each year of service.

Q. Can actuarial life analyses as used by Messrs. Rice and Selecky be used to develop a basis for estimating an overall average life applicable to a power plant account?

A. No, they cannot. The mix of interim and final retirements in the historical database is not consistent with the mix of future interim and final retirements and provides an insufficient amount of data upon which to base depreciation rates for steam production plants. That it is inconsistent with the mix of future and final retirements is illustrated by considering that the final retirement at the Sioux Plant will include retirement of a scrubber, while the plants at Cahokia, Mound and Venice (the 4 plants that lived a full life cycle and whose retirement history was studied) did not and Meramec will not. The costs related to the scrubber at Sioux are several times larger than the original cost to build the plant. As a result, the analysis of historical retirement rates for these other plants is not appropriate for forecasting future retirement rates for power plants.

Moreover, there are just four steam plants in service along with just four retired steam plants in the database used by Staff. This provides insufficient retirement history upon which to base future retirement rates. In contrast, there are thousands of poles, meters, and line transformers added and retired each year, which provides a much more representative mix of retirements upon which to base average service life estimates. It is simply not appropriate to use the same analytical approach to determine the average service life of poles, meters, line transformers, etc., as it would be to determine the average service life of power plants. Mass property lives are, in general, independent of one another while life span property lives are mostly attached to the life of the facility. A substantial portion, nearly 50 to 80 percent, of the retirements associated with life span property will occur on one date in the future when the plant is retired. It would be extremely unlikely to expect that 50 to 80 percent of the poles, wires, and line transformers will be retired at once in a given year.

In summary, the life analyses conducted by Mr. Rice for steam production, which are the basis for his life estimates, are wholly inappropriate for the following reasons:

1) they are based on limited data, i.e., the database includes just four power plants in service and just four retired power plants;

2) they assume that the mix of interim and final retirements for the current steam plants will be consistent with those experienced at Mound, Cahokia and Venice; that assumption is wrong;

3) the data points listed in the life tables beyond age 41 are based on even fewer power plants since the life tables beyond age 41 do not include Sioux, Labadie and Rush Island, each of which are as of this time younger than 42 years; and

4) based on Mr. Rice's life estimates of 45 years or more, the majority of the steam plant retirements are assumed to occur after age 45, with maximum lives ranging from 90 to 95 years, even though the oldest steam plant ever operated by AmerenUE was 60 years at Venice. Regarding the average survivor curves that Mr. Rice has estimated, the mix of final and interim retirements in the historical analyses is totally inappropriate to serve as **the** basis for forecasting a survivor curve that describes the overall average life of the power plants.

Q. Do you have any other concerns with Staff's and MIEC's use of a single average service life to describe the survivor characteristics for power plants?

A. Yes, I do. In my opinion, it is often the case that the average service life estimated when this approach is used is too long. That is, it does not sufficiently recognize the shorter service lives of future plant additions yet to be recorded in the Company's books. Unless the life estimate recognizes the shorter lives of both the interim retirements and additions including future activity, the life will be overstated, resulting in an overall under-recovery of the original cost. This will leave undepreciated balances on the books of the Company when the plant is retired, which will then have to be recovered from customers who then will not be taking service from the plant *at all.* This too is inequitable and is directly contrary to the goal of depreciation accounting; that is, to depreciate the full cost of the plant over its service life.

Q. What are the bases for this concern?

A. The bases for my concern are the misuse of retirement rate analyses of historical retirement data for these facilities. Most retirement rate analyses for power plant accounts do not reflect a mix of retirements in the historical data that is consistent with the overall mix that will result by the time of the final retirement. The mix that is currently reflected in the historical data tends to overstate the average life of the account since most of the retirements will occur when the power plant is retired, and that has not yet occurred for the Company's four largest coal-fired power plants.

The determination of depreciation rates is essentially an effort to forecast the future, commonly by analyzing past experience. However, such analyses for power plants are *unlikely* to provide reasonable indication of the future, unless the company has retired a significant number of power plants with unit life spans *similar* to those expected for the remaining units.

Q. Can you demonstrate that the average service lives selected by Messrs. Rice and Selecky are unreasonably long?

A. Yes, I will demonstrate in the example below that average service lives estimated by Mr. Rice (and even more so by Mr. Selecky) are too long and should be rejected. Table 1 below presents the average service lives (ASL) for steam production plants ordered in Case Nos. EC-2002-1 and ER-2007-0002, in addition to the average service lives estimated by Mr. Rice and Mr. Selecky in the current proceeding.

Table 1

		Ordered ASL		Proposed ASL ER-2010-0036	
Account No.	Title	EC-2002-1	ER-2007-0002	Staff	MIEC
311	Structures and Improvements	35	115	56	115
312	Boiler Plant Equipment	32	60	45	60
314	Turbogenerators	35	63	47	70
315	Accessory Electrical Equipment	35	90	51	80
316	Miscellaneous Equipment	29	60	45	60

I will demonstrate that these are too long by simply calculating a weighted average and comparing the results to the estimates. The weighted average is comprised of two parts: 1) the average service life of plant additions that have been retired (which are known); and 2) the average service life of plant additions that are currently in service (which are unknown).

I will use Account 312, Boiler Plant Equipment at Meramec, to illustrate the calculation. All figures used in this example are based on actual Company data.

<u>Given the following known information</u>:

1) Realized Average Service Life (ASL) of Meramec Plant additions that have been retired as of 12/31/2008 = 19.42 years;

2) Total Meramec Plant additions that have been retired = 14.74%;

3) Average age of the 85.26% of Meramec Plant remaining in service = 14.41 years.

In order to determine an overall average service life for Account 312 at Meramec that will equal Staff's proposed estimate of 45 years we will need to determine the average service life for plant currently in service. The average service life for plant currently in service is unknown at present. I have labeled the unknown ASL as variable "X" in the equation below.

It is obvious that the value for X has to exceed 45 years since approximately 15 percent of the additions have been retired at an average age of 19.45 years. Using the equation below, I can solve for the ASL of plant currently in service:

[(19.42 yrs * .1474) + (X yrs * .8526)] = 45 years.

By solving for X,

X = 42.14 / 0.8526 or **<u>49.43 years</u>**

I determine that the plant in service today at Meramec (which has an average age of 14.41 years) will need to remain in service ***unchanged*** for 35.02 additional years (49.43 yrs – 14.41 yrs) or until January 2044 in order for Staff's average service life estimate of 45 years to be achieved. If this were true, it would imply a life span at Meramec ranging from 82.5 years for Unit 4 to 90.5 years for Unit 1.

This is unreasonable. In addition to Mr. Loos, AmerenUE witness Mark Birk also addresses design and operational issues regarding the Meramec Plant that demonstrate the unreasonablenesses of such an assumption.

Regarding Mr. Selecky's even longer estimates, the current plant at Meramec in Account 312, Boiler Plant Equipment would have to remain in service *unchanged* for

52.5 more years or until 2061 in order to achieve his proposed 60 year *average* service life. This would imply a life span at Meramec ranging from 100 years for Unit 4 to 108 years for Unit 1. Such lives are unheard of and unreasonable, and should not be used to set depreciation rates.

These plant lives are clearly not reasonable, but even if they were, the above example understates the implied plant lives because it includes a simplifying but unrealistic assumption that there will be no interim additions and retirements. There will of course be interim additions and retirements at these plants, as there have always been. I chose to exclude interim additions and retirements to keep the above example straightforward and arithmetically uncomplicated. But make no mistake: the implied lives of Meramec Plant if the interim retirements and additions were properly considered would be even longer than 82.5, 90.5, 100, or 108 years. This is because the inclusion of interim additions and retirements into the above calculation would only reduce the average service life of plant currently in service, which in turn would require the power plant to remain in service even longer in order to achieve a 45-year or 60-year *average* service life. As a point of reference, interim retirements for Account 312 have averaged $18.4 million and interim additions have averaged $84.0 million during the past 10 years.

The retirement date for Meramec that I have used is January 2022 which results in unit life spans ranging from 61 to 69 years for the four generating units at Meramec. In comparison, Meramec would need to survive from between 83 and 91 years, *at minimum*, in order for Staff's 45-year average service life to be correct for Meramec.

A calculation similar to the example above at the plant account level is presented on Schedule JFW-ER10. Also, I have prepared a schedule similar to Schedule JFW-ER10, which incorporates interim retirements and additions (Schedule JFW-ER11).

Q. Please explain Schedule JFW-ER10.

A. The method used to calculate the average service lives for all four steam plants was the same as used in the example discussed in the answer to the prior question. Columns two through eight are based on the actual history of each of the plant accounts at the four steam production plants. Column 9 contains the average service lives being used by the Staff in treating these plants as mass property. Column 10 calculates the average service life that must be achieved for current plant in service if the investment in each account is to have the service life proposed by the Staff. Column 11 calculates the final retirement date that is implied by the Staff's average service lives.

Q. What conclusions can be drawn from Schedule JFW-ER10?

A. Focusing on the largest account (Account 312), the calculations indicate that all 4 coal-fired power plants need to remain in service until 2040 ***without any change – i.e., with no interim retirements and no additions*** – in order to achieve Staff witness Rice's average service life for Account 312. This is shown by the "312 Boiler Plant Equipment" row near the bottom of the Schedule. In other words, Staff's analysis would suggest that AmerenUE could simply operate the plants without replacing a single item, or adding any items, for 30 more years. This is obviously incorrect, as both the history of replacements and additions that we know have occurred, and common sense, indicate.

Q. Please describe Schedule JFW-ER11 in more detail.

A. Schedule JFW-ER11 contains the supporting calculations used to calculate average service lives for the steam production plant accounts. This scenario projects a pattern of interim additions and retirements that are similar, though more conservative, to those that have been experienced by the Company during the past 10 years.

As noted earlier, Schedule JFW-ER11 more realistically depicts that interim retirement activity (replacements as the plants are operated) and interim additions (betterments to the plants) will occur, as they always have. More specifically, the average service lives for steam plant accounts calculated in column 8 of Schedule JFW-ER11 were calculated using the following assumptions: 1) future interim additions and retirements occur at levels in accordance with actual past experience at the plants; 2) the plant balance will grow 2 percent per year, which is conservative, and just half of the Company's ten year average of approximately 4 percent; 3) final retirements will occur in the year in which I have estimated the plant to be retired; and 4) interim additions will cease in the five years preceding the plant's retirement.

Q. What conclusions can be drawn from Schedule JFW-ER11?

A. It shows that when considering what will actually occur – both interim additions and retirements – the Staff's proposed average service lives for steam production are still far too long, by at least 15 to 20 years. This can be seen in Column 10 of Schedule JFW-ER11, summarized for all of the steam production plant accounts at the bottom of the Schedule. In total, the *average* service life taking into account future retirement and betterment activity at all four plants, would actually be 27.83 years (column 10) for Account 312, yet the Staff is assuming that, *on average*, the investment in these plants would last 45 years (column 9).

Q. Apart from demonstrating that the Staff's average service lives are far too long (and that Mr. Selecky's even longer average service lives are even more unrealistic and unreasonable), what does the data on Schedule JFW-ER11 suggest?

A. While for the reasons discussed above the Commission should use the life span approach rather than applying a mass property approach to utility plant that is clearly life span property, should the Commission elect not to adopt the life span approach it must use the more reasonable average service lives contained in column 10 of Schedule JFW-ER11 because they realistically account for future interim additions and retirements, and the effect of that activity on average service lives.

Q. Please summarize the average service lives at issue in this case, if one were to assume that a mass property approach is to be continued for these plants.

A. Table 2 below compares the average service lives estimated by Staff and MIEC and the average service lives determined by me based upon future interim retirements and additions (derived from actual historical data) and contained in column 10 of Schedule JFW-ER11.

Table 2

Account No.	Title	Calculated ASL (Column 10 – Sch. JFW-ER11)		Proposed ASL	
				Staff	MIEC
311	Structures and Improvements	37		56	115
312	Boiler Plant Equipment	28		45	60
314	Turbogenerators	30		47	70
315	Accessory Electrical Equipment	32		51	80
316	Miscellaneous Equipment	26		45	60

The calculations set forth in Schedule JFW-ER11 demonstrate the significant impact future interim additions and retirements have on average service lives. The depreciation rates in the future will increase, assuming no changes to the depreciation parameters, because future plant additions will need to be depreciated over an increasingly shorter timeframe. Therefore, it is critical, if the mass property approach were used, not to adopt average service lives for steam plant accounts that are far too long such as those proposed by Mr. Rice and Mr. Selecky. Service lives that are too long will result in under-recovery of the asset's cost at the time of its retirement requiring future generations of customers to pay for the undepreciated portion of the retired power plant. This cost will be in addition to the costs future customers will pay for the presumably new power plant that replaced the retired power plant.

Q. How do the average service lives you calculated compare to average services lives the Staff has previously recommended when it has used the mass property approach to depreciating the steam production plants?

A. The average service lives I calculated in column 10 of Schedule JFW-ER11 approximate the average service lives the Company has used for depreciation purposes during the years 1983 through 2007. The 1983 depreciation rates were stipulated to by the Company and the Staff, and other parties, in Case No. ER-83-163. In case No. EC-2002-1, the Staff recommended average service lives for steam production accounts that ranged from 29 to 35 years – quite close the the average service lives I have calculated; that is, if the mass property approach were to be used. At that time, the Staff did not recommend the life span approach, as it has consistently refused to do. Case No. EC-2002-1 was settled and the depreciation rates from 1983 remained unchanged. In Case No. ER-2007-0002, Staff radically departed from the service lives that had been used for 24 years and recommended average service lives ranging from 60 years to 115 years and used the mass property approach. While Staff has corrected some of the errors that led to the shockingly long average service lives used by the Staff in Case No. ER-2007-0002, as I demonstrated on Schedule JFW-ER11, the Staff's average service lives (and to an even greater extent, Mr. Selecky's) are still far too long.

Q. Please summarize your testimony related to the estimation of power plant life spans.

A. Electric utility power plants are textbook examples of life span property. That is, they will ultimately experience a concurrent retirement of all facilities at a future date. This final retirement of the plant will occur because it is more economic to obtain the power from another source. Although the ***exact*** date of a power plant's retirement is not known until several years before it occurs, it is appropriate to make reasonable estimates of this date and use such estimates in the calculation of annual depreciation rates for the plants. All power plants ultimately will be retired and that retirement will occur on a specific date. This fact along with the Black & Veatch report, management's outlook, and typical electric industry life spans for steam plants provide a sound basis for making a reasonable estimate of a power plant's life span. Schedule JFW-E7 of my direct testimony lists the life spans of 464 retired U.S. coal-fired generating units that have been retired. The average life span for these retired units was approximately 43 years. Further, Mr. Larry Loos of Black & Veatch has surveyed 26 Midwestern states regarding the life span used for coal-fired power plants currently in operation and set forth the results in Appendix A-1 of his direct testimony. The average life span of the 133 in service, coal-fired units presented in Black & Veatch's survey is 55 years, with most estimated life spans ranging from 45 to 60 years. The life spans that I have used for AmerenUE's coal plants exceed 65 years for all units except the youngest two units at Meramec and for those units I have estimated life spans of 61 and 63 years, respectively. The use of a reasonable estimate of the life span results in a far more equitable allocation to customers of the plant's original cost throughout its life than the alternative which is to assume an infinite life span as Mr. Rice (and Mr. Selecky) has done. The approach of Mr. Rice and Mr. Selecky will leave an enormous amount of original cost to be allocated to customers after the time that the certain date of retirement is known. This is inappropriate ratemaking and should be rejected.

IV. <u>RESPONSE REGARDING CERTAIN STEAM PRODUCTION, TRANSMISSION AND DISTRIBUTION PLANT ACCOUNT ADJUSTMENTS BY MESSRS. RICE AND SELECKY</u>

Q. **Aside from treatment of the Steam Production Plant as mass property, do you have other concerns about Messrs. Rice and Selecky's depreciation expense recommendations?**

A. Yes. Mr. Rice has proposed life and net salvage estimates for certain production, transmission, and distribution plant accounts that do not properly allocate the service value of these items ratably over their service lives. I have some similar concerns about some of Mr. Selecky's estimates for some of the production accounts.[11]

Q. Which of these accounts would you like to specifically address in this section of your rebuttal testimony?

A. I would like to address Account 312.03, Aluminum Coal Cars, Account 356, Overhead Conductors and Devices, and Account 369.02, Underground Services, where the differences between my estimates and Mr. Rice's are material.[12]

Q. Mr. Rice has proposed a net salvage estimate of positive 72 percent for Account 312.03, Aluminum Coal Cars. Mr. Selecky has proposed a net salvage estimate for this account of positive 80 percent. Please explain why your estimate of positive 30 percent reflects the proper allocation of the service value of these assets over their service lives.

A. For Aluminum Coal Cars, both Mr. Rice and Mr. Selecky have relied primarily on the historical salvage data in determining his net salvage estimate. However, for this account, the historical data is very limited and for the reasons discussed below, is not indicative of future expectations for net salvage. All of the coal cars in this account were purchased new during the years 1991 through 1999; meaning that the oldest cars in this account were only 17 years old in 2008. Aluminum coal cars typically last much longer than that. Average service lives for coal cars used by railroad companies for depreciation purposes range from 25 to 30 years, with some cars lasting

[11] I address my concerns regarding Mr. Selecky's transmission, distribution, and general plant account depreciation rates in Section IV, below.
[12] Similar issues exist regarding Mr. Selecky's estimates for Account 312.03.

40 years or more. The retirements included in the net salvage data are all retirements of coal cars at young ages caused primarily by derailments. The net salvage proceeds related to these retirements is from third party reimbursements for destroyed railcars (railroad companies reimburse AmerenUE for the value of their railcars destroyed). Some of the destroyed railcars were only two or three years old so the insurance reimbursement is very high and nearly equal to the cost of a new railcar. These types of premature retirements distort the historical data and are not indicative of the life and salvage expectations for the entire population of 2000 railcars in this account. As a result, both Mr. Rice's and Mr. Selecky's net salvage estimates significantly overstate the expectation of future net salvage for this account.

Conversely, my estimate of positive 30 percent is based on my experience conducting numerous depreciation studies for freight railroads that have coal cars that have experienced a full life cycle. For normal retirements of coal cars, salvage proceeds are generally received for the scrap value of the car upon retirement. This amount is generally far less than 70% or 80% of the car's original cost, indicating that net salvage percentages of 72% and 80% are far too high. In general, railroads receive approximately $5,000 per car from scrap dealers. The original cost of the coal cars is approximately $50,000. This implies that an appropriate net salvage percentage might be only positive 10 percent net salvage. Consequently, my net salvage estimate, while less than Messrs. Rice and Selecky, in fact forecasts a significant increase in the future salvage value the Company will receive from scrap dealers over what might be expected. This is a much more reasonable estimate of future net salvage than those of Mr. Rice and Mr. Selecky.

Q. Mr. Rice has proposed a 65-R3 survivor curve for Account 356, Overhead Conductors and Devices. Please explain why your proposed estimate of 55-R4 more appropriately allocates the service value of the items in this account over their service lives and is thus more reasonable.

A. For Account 356, Mr. Rice has given undue weight to data points that represent only a limited amount of retirement activity. Specifically, for ages from the original life table older than age 45, there is less than $10 million of investment exposed to retirement. This compares to over $137 million in total plant additions for this account. Mr. Rice's estimate only appears to be a better fit of the data because he fits the curve through age 60. As a result, he gives equal weight to data points for ages 45 through 60 as he does to earlier data points. He thus gives the older data points equal weight to the more significant data points with ages less than 45.

While I have considered ages 45 through 60 in selecting the appropriate survivor curve for this account, I have given them less importance than those for ages 0 through 45. Also, the previously approved estimate for this account was the 55-R4, meaning that the existing average service life estimate is 55 years. The service lives for most transmission and distribution plant accounts tend to gradually change if at all from one study period to the next. Service lives change a year or two and sometimes up to five years between depreciation studies but rarely more than five years in transmission and distribution.

I have estimated a 49-year average service life for Account 365, Overhead Conductors and Devices in Distribution Plant, while Mr. Rice estimates a 51-year average service life for the same account. The service lives for Account 356, Overhead Conductors and Devices – Transmission Plant and Account 365, Overhead Conductors and Devices -- Distribution Plant, should be relatively similar and there should not be such a spread (14 years) between the two accounts as Mr. Rice proposes. For these reasons, my estimate of the 55-R4 survivor curve is a more reasonable estimate than that of Mr. Rice. Thus, the approximately $933,000 reduction in depreciation expense for this account should be rejected.

Q. Mr. Rice has proposed a 70-R2 survivor curve for Account 369.02, Underground Services. Please explain why your proposed estimate of a 55-R3 survivor curve more appropriately allocates the service value of the items in this account over their service lives and is thus more reasonable.

A. Similar to his estimate for Account 356, Mr. Rice gives undue weight to data points that represent a less significant amount of activity. In this case, I have given less weight to points beyond age 38, which represent less than $10 million in exposures to retirement, compared with $175 million in total additions for the account. My estimate therefore places the proper emphasis on the more significant data points that occur before age 38. For this reason alone my estimate is more appropriate.

However, Mr. Rice's estimate also represents a very large increase over the currently approved life estimate. His estimate of a 70-year average service life is an increase of 25 years over the currently approved 45-year average service life, which is too large of an increase to have occurred in the three years between the 2005 and 2008 depreciation studies. Additionally, Mr. Rice's estimate is unreasonable when compared to the service life estimate for Account 369.01, Overhead Services. Mr. Rice has estimated a service life for Account 369.02 that is 30 years longer than that of Account 369.01. While underground services may last longer than overhead services, 30 years is far too large of a disparity between the two. For these reasons, my estimate of a 55-

R3 survivor curve is more appropriate than that of Mr. Rice. Thus, the approximately $600,000 reduction in depreciation expense for this account should be rejected.

Q. Mr. Rice has proposed a 44-R4 survivor curve for Other Production Plant, Accounts 341 through 345. Similarly, Mr. Selecky has proposed a 45-year life for these accounts. These lives contrast with your estimate of a 40-R4 survivor curve. Do you agree with their proposals for these accounts?

A. No, I do not. Mr. Selecky offers no support for his increase in service life, and for this reason his proposal should be rejected.

Mr. Rice proposes to increase the average service life from the currently approved 40 years to 44 years based on his analysis of the historical data. However, the historical data is based on a very small portion of the current plant in service related to older, smaller plants than many that the Company currently operates. As a result, the historical data will not necessarily be representative of future life expectations for these plant accounts. For this reason, it is appropriate to base the life estimates for these accounts on more than just an analysis of the historical data.

Q. Why should the historical data not be given as much weight in determining the average service lives for these plant accounts?

A. Accounts 341 through 345 contain property for AmerenUE's combustion turbine generator (CTG) fleet. The CTG fleet is comprised of 46 generating units. Ten of the units were installed prior to 1979 for a total cost of approximately $40 million. The vast majority of the $1.178 billion investment in CTGs is relatively new with over 96% of the current plant balance vintage 2000 or later. The average age of the CTG investment is 7.3 years. Since such a large portion of the investment in these accounts is so new, there is minimal reliable retirement history available to study. Furthermore, the oldest CTG AmerenUE currently operates was built in 1967. In other words, the oldest plant was only 41 years old as of December 31, 2008, which is three years less than the average service life proposed by Mr. Rice. The number of hours the older CTGs have operated has diminished with the addition of the new units. Some of the older units operated less than 10 hours in 2008 while some of the new units operated over 500 hours in 2008. The older CTG's are mainly used to provide emergency generation and to ensure that the Company has an adequate reserve margin.

For these reasons, the limited historical data does not provide a sufficient reason to change the survivor curve estimates for these accounts from the currently approved 40-year average service life. Other electric companies use service lives that range from 25 to 35 years for CTGs. Prior to 2007, AmerenUE used 25 years for depreciation purposes and recently revised the life estimates to 40 years in Case No. ER-2007-0002, which was a significant increase. A 40-year average service life is a conservative estimate for CTGs. Over 96 percent of the investment in Other Production is less than 9 years old. The newer CTGs will have to remain in service an additional 40 years *unchanged* in order to achieve the 44- or 45-year average service life recommended by Staff and MIEC. I recommend that the newer units must be given more time to accumulate experience before the life estimates are revised again. My proposed estimate, a 40-R4 survivor curve, which was approved by the Commission in Case No. ER-2007-0002, is based on informed judgment with due consideration of the relevant factors and should continue to be used until this additional experience can be obtained. The relevant factors upon which the 40-R4 survivor curve's use is based include the service lives used by other utilities for similar power plants, the historical life analyses, the age of the current CTG fleet, the outlook of management, and the existing service life estimates used by the Company. Based on consideration of the relevant factors, I conclude that 40 years remains a reasonable estimate for the CTG units included in Other Production Plant.

Q. Describe the changes proposed by Mr. Selecky for Account 322, Reactor Plant Equipment, at the Callaway Nuclear Plant in comparison with your proposal.

A. Mr. Selecky is proposing a change in the interim survivor curve used for Account 322, Reactor Plant Equipment, which has the effect of increasing the average remaining life for Callaway from 29.8 years to 32.6 years. Also, Mr. Selecky is proposing that the net salvage estimate for Account 322 be reduced from negative 10 percent to negative 1.2 percent. He presents his service life and net salvage estimates and remaining life depreciation calculations on his Schedule JTS-4.

Q. On what does he base his adjustment?

A. In 2005, AmerenUE replaced the original four steam generators at Callaway. The steam generators were approximately 20-years old at the time of replacement and the cost to remove the steam generators was approximately $25 million. The original cost of the steam generators retired was $81 million, therefore the net salvage percent related to the removal of the steam generators was negative 30.9 percent. The steam generator retirement represents approximately 46 percent of the total retirements experienced for Account 322 during the first 24 years of the plant's life (1984 through 2008). Mr. Selecky describes the retirement of the steam generators as "extraordinary" and excludes it from his life and net salvage analyses.

Q. Do you agree with Mr. Selecky that retirement of the steam generators and their related cost of removal should be excluded from the analysis?

A. No, I do not. Most nuclear plants have experienced problems with their steam generators. As a result, most nuclear plants have replaced or are planning to replace their steam generators. In that sense, the retirement of steam generators is not extraordinary.

Also, the Callaway Nuclear Plant is a relatively young nuclear plant and has not experienced a significant amount of retirements to-date. The plant has been operating for approximately 24 years as of December 31, 2008. Therefore, while the retirement amount associated with the steam generators is a sizable percentage relative to the total retirements experienced to date, the 46 percent will diminish in the future when additional large component replacement occurs as the plant ages. For depreciation purposes, it is assumed that the Plant will live an additional 34.8 years (until October 2044).

The steam generators were replaced because the tubes were deteriorating. However, in the future, major component replacement also will occur due to functional and economic obsolescence. For instance, Exelon Nuclear, the largest nuclear plant operator in the U.S., plans on spending $3.5 billion over the next eight years on nuclear power uprates. The uprate program at Exelon will generate between 1,300 and 1,500 megawatts of additional generation capacity, comparable to the size of modern nuclear generating unit at about half the cost. In addition, the Shaw Group, a leading engineering and construction firm serving the nuclear industry, estimates that nuclear plant operators will spend $25 billion on nuclear power uprates in the future which can boost the output of the plant by 10 to 15 percent. Uprate projects improve the efficiency and increase electricity output of a nuclear generating unit through upgrades to plant equipment. Therefore, understanding that these plants (and Callaway) were designed to last 40 years when constructed and are now estimated to last 60 years, it is reasonable to expect future major component replacement will occur at Callaway. Taking these future major component replacements into account means that the dollars associated with the steam generator replacements will not be extraordinary in relation to the dollars retired in the future, and thus they should not be excluded from the life and net salvage analyses.

Q. Do you have evidence relating specifically to Callaway that demonstrates significant future retirements will occur in the future?

A. Yes. The table below lists the major component replacement projects AmerenUE has planned over just the next five years – through 2014. The retirements associated with those projects totals approximately $48 million.

Project	Completion Date or Scheduled Date	Retirement Cost
#7 HP Feedwater Heater Replacement	Install Fall 2014	$2,511,000
Rx Head Replacement	Install Fall 2014	$13,971,278
Main Transformer Replacement	Spring 2013	$18,900,000
Metal Clad Breaker Replacement	start Fall 2011 finish Fall 2014	$3,750,000
#5 HP Feedwater Heater Replacement	Spring 2013	$2,243,202
ESW Buried Pipe Replacement	April, 2009	$2,585,600
Rod Control Cluster Assembly Replacement	June, 2008	$5,033,036
TOTAL		$48,994,116

This information demonstrates that in just the next five years, retirements totaling nearly $49 million will occur, which is 60 percent of the dollars associated with the steam generator retirements. It is reasonable to expect that during the 30-year period from 2014 through 2044 more substantial replacements will occur. To ignore the steam generator replacements in the face of this future retirement activity is unrealistic and will almost certainly overstate the remaining life calculations, which artificially reduces depreciation expense.

Q. Please elaborate on why ignoring the steam generator retirements will almost certainly overstate the remaining life.

A. As noted, the remaining life depreciation calculations presented by Mr. Selecky are based on some very broad assumptions and extrapolations that are not realistic because he calculates the average retirements for Account 322 excluding the steam generator retirements during the plant's first 24 years of operation. It is not surprising that the average is low since retirements are not expected to be significant early on in the plant's life. The situation is analogous to building a new house. During the first ten years of the life of your new home you don't replace much of the original equipment, perhaps just some flooring and carpets. After 10 years, some appliances are replaced. After 15 years, the air conditioning units need to be replaced. After 20 years, the roof gets replaced. After 25 years, the windows, doors, and furnace are replaced. The point is that the rate and magnitude of the retirements increase as the home ages. Now, if I took an average of what I replaced in my home during its first 10 years and used that average to estimate what I would replace in later years as the house ages, I would significantly underestimate the replacements. This example illustrates that Mr. Selecky's attempt to exclude data from the retirement history when the plant was young will not be representative of the future when the plant is older. He has calculated the average retirements of the first 24 years and used that low average to project future retirement rates related to plant age 25 to 60.

The interim survivor curve that I have estimated was based on the Company's retirement experience during the years 1985 through 2008 and the application of informed judgment (recognizing that as the plant ages retirements will increase) to extrapolate the survivor curve beyond 24 years (ages 25 to 60), which is unknown. My interim survivor curve estimate forecasts *increasing* rates of retirement as the nuclear plant ages, which comports with common sense and the information in the table presented above. Mr. Selecky assumes a constant rate of retirement for every age, which does not comport with common sense given that new plants are not expected to experience as many retirements.

After 60 years, approximately 30 percent of the original plant is retired according to Mr. Selecky's interim survivor curve which is based on a 0.00498 retirement rate for every age interval. In comparison, the interim survivor curve that I have estimated has lower rates of retirement in the first ten years than Mr. Selecky. After ten years, the retirement rates increase gradually so that at age 60, approximately 50 percent of the original plant is retired using my estimate.

Q. Does Mr. Selecky's decision to ignore the retirement of the steam generators affect his net salvage estimates as well?

A. Yes.

Q. Do you agree with the adjustments made by Mr. Selecky related to his net salvage estimate for Account 322, Reactor Plant?

A. No, I do not. The historical net salvage percent experienced by AmerenUE during the years 1986 through 2008 for Account 322 is negative 18 percent, which Mr. Selecky adjusts down to negative 1.2 percent. The negative 18 percent net salvage experienced by the Company properly includes the removal of the steam generators, for the reasons discussed above. Excluding the steam generator retirement results in a net salvage estimate of negative 6.8 percent versus the actual net salvage experience of negative 18 percent.

But Mr. Selecky then further reduces the artificially low negative 6.8 percent to negative 1.2 percent. Mr. Selecky's negative 1.2 percent is too low, as shown by the fact that the estimated interim retirements in this account comprise 50 percent of the total retirements. Fifty percent of the total retirements (which produces a net salvage percentage of negative 18%) is approximately negative 9%. I estimated the net salvage percent at negative 10 percent because in my judgment it will actually end up somewhat more negative because of the young ages at which the historical nuclear plant retirements have occurred. As discussed earlier, in the future, the average age of interim retirements, currently at 17.1 years, will increase significantly to approximately 40 years as the plant ages. Moreover, the change in price level for retirements will effectively double in 24 years (assuming a 3 percent annual inflation rate). This is because removal costs are expenditures that occur in the future and are affected by inflation.

Q. Are there any other issues related to production accounts that you would like to address related to Mr. Selecky's direct testimony?

A. The average service lives proposed by Mr. Selecky for Steam Production are based on historical life analyses that included interim retirements only. That is, he excludes the final retirements that occurred at Venice I, Venice II, Mound and Cahokia. Not surprisingly, he estimates average service lives that are too long and well outside the typical industry range. In my rebuttal to Mr. Rice listed above, I have provided several reasons describing the shortcomings of using the historical data to estimate average service lives for life span property. One of the reasons was that the database was limited to four retired plants and four plants currently in service, and this is an insufficient sample on which to base an estimate. Mr. Selecky compounds this problem by excluding the four plants that have completed a full life cycle. Thereby, he uses a database that has no final retirements and he considers the life analyses resulting from this obviously limited database to be appropriate to use to support his average service life estimates in Steam Production. Clearly, the database is not appropriate to use since it does not contain any final retirements of power plants. The majority of retirements that occur in Steam Production are final retirements and Mr. Selecky excludes these retirements from his analyses.

In fairness to Mr. Selecky, the reason why he excluded Venice, Mound and Cahokia is that they were older and smaller plants whose service lives he claims are not representative of the current plants in service. This is a valid reason. However, if you are planning to exclude several plants there should be enough other representative power plants in the historical database in order for the analyses to be meaningful. In this instance, Mr. Selecky and Mr. Rice should have elected not to use the historical data for the purpose of estimating service lives.

The determination of depreciation rates is essentially an effort to forecast the future, commonly by analyzing past experience. However, such analyses for power plants are *unlikely* to provide reasonable indication of the future, unless the company has retired a significant number of power plants with unit life spans *similar* to those expected for the remaining units. In summary, the historical database for production plant accounts should not be utilized for life analyses purposes in the manner selected by Mr. Rice and Mr. Selecky due to insufficient data contained therein.

Q. Do you agree with any of Mr. Selecky's proposed adjustments?

A. Yes, I agree with one of them relating to the net salvage estimates used for Accounts 341 to 345.

Q. Please Explain.

A. Mr. Selecky is proposing to change the net salvage percent from negative 5 percent to negative 2 percent. This change would reduce the depreciation expense that I have proposed by approximately $1.08 million.

Q. On what does he base his adjustment?

A. Mr. Selecky bases his net salvage estimate on the historical net salvage experience of the Company which indicates negative 2 percent.

Q. Why do you agree with Mr. Selecky's estimate of negative 2 percent for these accounts?

A. I have reconsidered the basis for my net salvage estimate which included an estimate of the costs to dismantle the units at the end of their operating life. Since the Company is not requesting recovery of these costs in this proceeding, which we describe as terminal net salvage, it is appropriate that I adjust my net salvage estimate. The net salvage estimate of negative 2 percent proposed by Mr. Selecky is reasonable, and I have revised the schedules included in my depreciation study to reflect this change. The revised schedules (which replace pages III-4 to III-21 in my depreciation study (attached to my direct testimony as Schedule JFW-1) are attached to my rebuttal testimony as Schedule JFW-ER12.

V. <u>RESPONSE TO MR. SELECKY'S ALTERNATIVE OR "FALLBACK" PROPOSAL REGARDING PRODUCTION PLANT DEPRECIATION</u>

Q. You earlier addressed Mr. Selecky's use (like Mr. Rice) of a mass property approach to depreciating the Company's steam production units and some miscellaneous reductions proposed by Mr. Selecky, in some cases similar to miscellaneous reductions proposed by Mr. Rice. Does Mr. Selecky have any other

proposals regarding production plant that need to be addressed?

A. Yes. Mr. Selecky advances a fallback position regarding production plant depreciation in the event the Commission uses the life span approach to depreciate the Company's steam production plant, which I have discussed in detail above. Mr. Selecky offers two recommendations that would apply only if the life span approach is used for the Company's steam production units, in the event the Commission rejects his primary proposal to treat the steam and hydro plants as mass property and adopts the life span approach for these plants.

Q. What are those two recommendations?

A. He recommends that the life span at Meramec be increased by five years to 2027 and the net salvage for Account 312, Boiler Plant Equipment, be reduced from his proposed negative 25 percent to negative 10 percent.[13]

Q. Do you agree with his changes?

A. No, I do not. The primary reason given for lengthening the life span at Meramec is that the average life spans estimated by Black & Veatch at the other three steam plants are approximately five years longer than the life spans used for Meramec Units 3 and 4 (63 and 61 years, respectively). Mr. Selecky's reasoning is overly simplistic and ignores the differences among the plants. These differences are described further in the rebuttal testimony of Company witness Mark Birk. As Mr. Birk explains, Meramec is the oldest, smallest, and least efficient of the four coal-fired power plants in service. Its four units are significantly older than the other plants ranging from 6 years older to 23 years older. The plant's operating mode, as a cycling plant, was

[13] Mr. Selecky's other production-related adjustments, discussed above (regarding Account 322, Reactor Equipment, Account 312.03, Aluminum Coal Cars, and Accounts 341 to 345, Other Production) would also apply to his "fallback" position.

different than the other plants and this mode of operation places additional physical and thermal stresses on the equipment. It's not reasonable to assume that the units at Meramec will live as long and longer than the other plants based on their differences. The life spans for Units 1 and 2 at Meramec would be 74 and 73 years, respectively, making those units the ones with the longest life spans in the AmerenUE system. The life span estimates developed by Black & Veatch, which I have used in the depreciation study, are sound with proper consideration given to all relevant factors and should be adopted.

Q. Please address his recommendation to reduce the net salvage percent for Account 312, Boiler Plant Equipment, from the historical level of negative 25 percent to negative 10 percent.

A. I agree with Mr. Selecky's premise to reduce the net salvage percent if the life span approach is adopted. However, this is due to the Company not asking for recovery related to terminal net salvage. Terminal net salvage, i.e., decommissioning and dismantlement costs associated with the final retirement of power plants, most likely will occur and will be significant. However, the Company has requested that I not factor these future costs into my net salvage estimates for production plant. Therefore, the net salvage estimates that I have proposed are solely related to the recovery of interim net salvage. The historical net salvage indication is negative 25 percent for Account 312, Bolier Plant Equipment. I have adjusted my net salvage estimate to negative 15 percent based on the assumption that 60 percent of the retirements are interim retirements. The 60 percent figure is based on the estimated interim survivor curve shown on page A-5.

I disagree with the further reduction in the net salvage percent proposed by Mr. Selecky since the historical data (shown on pages B-5 through B-7 of my depreciation study report, Schedule JFW-E1 to my direct testimony) clearly indicates an increasing trend towards higher negative net salvage percents. That is, the negative 25 percent which is the average net salvage percent experienced during the years 1961 through 2008 is likely to increase (become more negative). I already have discussed the reason for this trend above in the section related to Account 322, Reactor Plant Equipment. Net salvage percents are likely to increase as plants age due to the increasing average age of retirements. As the average age of retirements increase, the price level change from the year of initial construction to the year an asset is retired becomes more pronounced and this has an impact on the historical net salvage percents due to the effect of inflation, even assuming constant rates of inflation during the period. The service life and net salvage estimates need to consider what is likely to occur in the future and properly reflect that information in the estimates. On page B-7 of Schedule JFW-E1 to my direct testimony, I calculate a three-year moving average of the net salvage percents in order to smooth out the inherent annual fluctuations in the net salvage data. The three-year moving averages indicate net salvage percents above negative 30 percent for every three-year period since 1998. In view of this, the net salvage estimate of negative 15 percent is reasonable and should be adopted.

In summary, net salvage costs will be higher in the future due both to the increasing average age of retirements and the larger effect of the price level change in the future compared with the historical experience.

Therefore, my proposed net salvage estimate of negative 15 percent is conservative based on what is likely to occur in the future.

VI. <u>RESPONSE TO MR. SELECKY'S PROPOSAL REGARDING DEPRECIATION RATES FOR TRANSMISSION AND DISTRIBUTION PLANT</u>

A. Mr. Selecky's Recommendation Is Inconsistent with the Commission's Recent Decision on the Treatment of Net Salvage and with the Treatment of Net Salvage by the Vast Majority of all State Commissions.

Q. Has this Commission ever dealt with the issue of recovering net salvage costs?

A. Yes.

Q. How has the Commission treated such costs?

A. The Missouri Public Service Commission ("Commission") treats net salvage for ratemaking and book purposes in a manner similar to the vast majority of other state commissions. The Commission allows for the prospective recovery of future net salvage over the life of plant through the use of current depreciation rates.

Q. Please explain.

A. For decades, Missouri utilities accrued future net salvage costs through their depreciation rates. In 1999, Laclede Gas Company filed a general rate case (Case No. GR-99-315). In that case, Laclede calculated depreciation based on the traditional method of recovering future net salvage ratably over the life of gas plant as it had done for many years. However, MPSC staff witness Mr. Paul Adam recommended an entirely new approach, that is, that net salvage costs be treated in a manner similar to a normalized operating expense for ratemaking purposes. He did this by calculating the most recent five-year average net salvage and using that amount as his net salvage allowance for ratemaking purposes. Initially, the Commission agreed with Staff witness Adam when it issued its first Report and Order in the rate case on December 23, 1999.

Laclede Gas (along with intervenor AmerenUE) appealed the Commission's decision. The Commission presented arguments similar to those offered by Mr. Selecky in this case; namely, that if utilities recover more through net salvage accruals than they are currently spending, they are (the Staff alleged) "over-recovering" from ratepayers. The Missouri Court of Appeals rejected this line of argument, stating that the Commission "fail[ed] to provide a reasonable basis for its decision" and finding it unsupported by the evidence. State of *Missouri ex rel. Laclede Gas Co. and Union Elec. Co. d/b/a AmerenUE v. Pub. Serv. Comm. of Mo.*, 103 S.W.3d 813, 819 (Mo. Ct. App. 2003). It thus remanded the case back to the Commission for findings of fact sufficient to support its prior resolution of the net salvage issue.

On remand, in early 2005, the Commission ruled that indeed there was no support for the Staff's non-traditional approach to net salvage and returned to the traditional, majority approach to the issue. The Commission found that prospectively accruing for future net salvage through depreciation was the proper ratemaking treatment for net salvage. A copy of the Commission's decision in the *Laclede* case is attached to my testimony as Appendix A.

Q. In reaching its decision, what did the Commission conclude?

A. The Commission first recognized that it was "undisputed that the accrual method used by Laclede to determine the net salvage component of its depreciation rates has traditionally been used" by Laclede. Case No. GR-99-315, Third Report and Order, p. 7 (Jan. 11, 2005). That statement is also true regarding AmerenUE. The Commission further found that it is "undisputed that using the accrual method for this purpose [for the purpose of including future net salvage in the depreciation accruals] is supported by the overwhelming weight of authority on such matters" (*Id.*, p. 8); that "such method is consistent with the Uniform System of Accounts" (*Id.*, p. 9); and that the accrual method is consistent with the fundamental goal of depreciation account, that is "to allocate the full cost of an asset, including its net salvage cost, over its economic or service life so that utility customers will be charged for the cost of the asset in proportion to the benefit they receive from its consumption" (*Id.*). Moreover, the Commission rejected the theory that relying on current or recently-historical net salvage expense levels was more equitable (as claimed by Mr. Selecky on page 26 of his direct testimony). In this regard, the Commission stated that "the accrual method comes closer to matching the costs to the benefits derived" and that "intergenerational equity will be promoted by the continued use of the accrual method." *Id.*, p. 13.

I agree with all of the above-cited Commission findings.

Q. Are there other Commission orders that reference the ratemaking treatment for net salvage that are relevant to this proceeding?

A. Yes. In 2006, AmerenUE filed a general rate case in Missouri (Case No. ER-2007-0002) requesting a rate increase from their electric customers. Both Mr. Selecky and I presented testimony in this case.

Q. Was the ratemaking treatment of net salvage an issue in the case?

A. Yes, it was.

Q. Were the positions of the parties in that case similar to the positions in this case?

A. Yes, very similar. In Case No. ER-2007-0002, Mr. Selecky supported effectively expensing experienced net salvage costs and I (and the Staff) supported the method of prospectively accruing for future net salvage over the life of utility plant, as the Commission had just ruled was proper in the *Laclede* case. Mr. Selecky's reasoning was that the net salvage accrual greatly exceeded the net salvage costs that the Company was incurring and as a result current ratepayers are paying more than their fair share. This is the same flawed reasoning that he uses to support his proposal in the current case.

Q. What else did Mr. Selecky do in Case No. ER-2007-0002 regarding this issue?

A. Mr. Selecky's proposal in Case No. ER-2007-0002 also included an alternative fallback proposal in which he removed past levels of inflation for the historic net salvage analyses. In that case, he deemed past inflation rates as being excessive and unlikely to recur and substituted his projection of future inflation into the historic net salvage analyses.

Q. Did he do the same thing in this case?

A. No. Although Mr. Selecky discussed inflation at length in his testimony, he never followed through and substituted his projection of future inflation for past inflation in his calculations. Rather, he just reduced depreciation expense in transmission and distribution by $35 million with little support and little analysis.

Q. What was the outcome in Case No. ER-2007-0002 regarding net salvage for Transmission, Distribution and General Plant accounts?

A. The Commission reaffirmed its recent rejection in *Laclede Gas* of the position advanced by Mr. Selecky, stating:

> The fundamental goal of depreciation accounting is to allocate the full cost of an asset, including its net salvage cost, over its economic or service life

> so that utility customers will be charged for the cost of the asset in proportion to the benefit they receive from its consumption.[14]

Additionally, the Commission rejected Mr. Selecky's proposal regarding net salvage, stating:

> MIEC's proposal to abandon the accrual method of calculating depreciation would abandon what the Commission found to be a fundamental goal by once again divorcing recovery of net salvage from the customers who will benefit from the use of the asset during its lifetime. It would instead push those costs onto future ratepayers who would be saddled with the full cost of net salvage at the time the asset is retired.[15]

Finally, the Commission also rejected Mr. Selecky's alternative proposal to substitute reduced projections of future inflation in place of historic rates of inflation as recorded in the experienced net salvage data, stating:

> [MIEC's] proposal to substitute projections of future inflation for historic rates of inflation is flawed by an overstatement of the average age of historical retirements used in the formulas for substituting projected future inflation for historic rates of inflation . . . . Even more fundamentally, MIEC and Public Counsel have failed to demonstrate any reason to believe their estimates of future inflation are a more reliable predictor of future inflation than the past history used by Staff and AmerenUE in their calculations. Expert predictions of future inflation can be little more than guesswork. It is impossible to accurately predict what inflation might occur 30 or 40 years in the future . . . . The Commission finds past history to be a better predictor of future inflation for ratemaking purposes.[16]

Q. Does the MPSC's reasoning in Case No. ER-2007-0002 and in the *Laclede* case apply in this case?

A. Yes. Essentially the same issues and arguments were raised by similar parties (and in AmerenUE's case, by identical witnesses) as in this case, and the same resolution is justified in this case as well. The only difference is that Mr. Selecky has seemingly abandoned his earlier proposal to *directly* treat the recovery of future removal

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[14] *In the Matter of AmerenUE's Tariffs Increasing Rates for Electric Service Provided to Customers in the Company's Missouri Service Area*, MPSC Report and Order, Case No. ER-2007-0002, p. 92 (2007).
[15] *Id.*
[16] *Id.*, pages 92 & 93.

costs as a normalized operating expense. Instead, he reduces the Company's proposed depreciation expense by $35 million, but he does so *indirectly* using similar logic to that rejected in both the *Laclede* case and in Case No. ER-2007-0002; that is, he examines recent historical net salvage expenditures and concludes that they suggest that the accrual for net salvage is too high. Mr. Selecky then chooses a $35 million reduction and allocates the $35 million reduction (he has termed this his "*net salvage accrual offset*") to the transmission and distribution accounts in proportion to his calculated net salvage accrual and subtracts the *"net salvage accrual offset"* from the AmerenUE proposed depreciation expense to come up with his own proposed depreciation amounts and rates set forth on his Schedule JTS-11. His transmission and distribution amounts when summed are exactly $35 million less than the AmerenUE proposed amounts, which were calculated using the accrual method.

Q. What is his basis for reducing depreciation expense by $35 million?

A. The basis for his proposed reduction is that he mistakenly believes the net salvage accrual exceeds net salvage costs by approximately $60 million and that his $35 million reduction essentially splits the difference. On page 31 of his direct testimony Mr. Selecky states the following:

> I would recommend that the Commission modify its current approach for determining T&D net salvage expense for AmerenUE. I propose that the Commission establish a T&D depreciation accrual offset of $35 million. AmerenUE's depreciation rates would be developed following the traditional method of determining the net salvage ratios. However, the depreciation expense will be reduced by the $35 million. Under this proposal, AmerenUE will collect net salvage expense in its depreciation rates that is approximately $25 million greater than the level of annual net salvage expense that AmerenUE has actually incurred over the last five years.

Q. You state that Mr. Selecky mistakenly believes that there is a $60 million difference between the net salvage accrual and the net salvage costs for transmission and distribution. Please elaborate.

A. Mr. Selecky, on his Schedule JTS-9, calculates the net salvage accrual as $76.131 million for transmission and distribution accounts.[17] He shows the same amount on his Schedules JTS-10 and JTS-11. On Schedule JTS-10, Mr. Selecky calculates the difference between the net salvage accrual and the net salvage costs. He determines an amount of $58.970 million which he labels as "Excess Net Salvage Expense in Depr Rates". This amount of $58.970 million is calculated by subtracting the Company's actual 2008 net salvage costs related to transmission & distribution accounts of $17.161 million from his calculated net salvage accrual of $76.131 million. However, Mr. Selecky has incorrectly calculated the net salvage accrual included in the Company's depreciation rates, which as I noted were calculated using the accrual method sanctioned by the Commission in the *Laclede* case and in AmerenUE' last rate case where this was an issue, Case No. ER-2007-0002.

Q. **Please explain the nature of his mistake.**

A. On Schedule JTS-9, Mr. Selecky calculated a net salvage accrual of $76.131 million, which is 52 percent of the Company's total depreciation accrual for transmission and distribution ($145.305 million). Mr. Selecky's $76.131 million figure is wrong. Rather, as I demonstrate below, the net salvage accrual portion of AmerenUE's total transmission and distribution depreciation accrual is only $53.684 million – just 37% of the total accrual. Thus, Mr. Selecky's claim that AmerenUE's proposed depreciation rates would "over-accrue" by nearly $59 million is incorrect.

[17] This is shown in his column 10 on Schedule JTS-9, that is, the sum of the totals for lines 1 to 6 and 7 to 18.

Q. Please explain his mistake in more detail.

A. Mr. Selecky calculated remaining life depreciation rates using both the Company's proposed net salvage parameters and a net salvage estimate of zero. He then calculated the net salvage accrual rate to be the difference between these two calculated rates. In doing so, Mr. Selecky incorrectly assumes that the remaining life depreciation rates calculated with a zero net salvage estimate is a true reflection of the portion of AmerenUE's calculated total transmission and distribution depreciation accrual related to the capital recovery of the original cost of its assets. However, he ignores the fact that a portion of the total depreciation accrual for a given account is related to past net salvage accruals. He instead assigns all of the depreciation accrual to the capital recovery of original cost and none to net salvage. As a result, his calculation understates the capital recovery portion of the depreciation accrual and overstates the portion related to net salvage. This has the effect of making it appear that the accruals for net salvage are much too high, when in fact they are just 37% of the total depreciation expense for transmission and distribution plant. Mr. Selecky also observes that the Company has accrued $582 million, or 30 percent of the book accumulated depreciation, for future net salvage. Mr. Selecky references this amount and wrongly implies that the company has somehow over-collected through prior years' accruals. However, the 30 percent referenced by Mr. Selecky seems low based on the fact that 37 percent of the annual depreciation provision is related to the net salvage accrual. These numbers are highly correlated since the utility accrues for the removal cost in advance of its cash outlay. That is, I would expect 37 percent or so of the book accumulated depreciation reserve to be related to net salvage and not just 30 percent.

There is nothing unusual about this amount ($582 million) or percent (30%) as Mr. Selecky implies.

Q. Does Mr. Selecky's error produce unusual and unreasonable results?

A. Yes. For example, for Account 369.1, Overhead Services, his claimed net salvage accrual is actually larger than the *total* depreciation accrual for this account. This demonstrates that Mr. Selecky's calculations are wrong.

Q. What is the correct way to calculate the net salvage accrual?

A. The net salvage accrual should be calculated based on the net salvage estimate used in the depreciation rate formula to properly reflect the percentage of the depreciation accrual that is related to net salvage. The depreciation accrual reserve related to net salvage is equal to the depreciation accrual multiplied by the following ratio:

(- Net Salvage %) / (100% - Net Salvage %).

For example, Account 364, Poles & Fixtures, has a net salvage estimate of negative 150 percent. This means that over the life of a pole, the company will recover 250% of the original cost of the pole, consisting of 100% for the original pole and 150% of the original cost for the future net salvage of the original pole. Since the net salvage estimate is 150%, 60% (or 150% / 250%) of the total recovery will be related to net salvage.[18]

The corrected net salvage accruals are shown on page 1 of Schedule JFW-ER14. For transmission and distribution plant that part of the depreciation accrual related to net salvage is $53,648,682 (see column 10, line 19).

[18] The net salvage percentages used by the parties in this case are summarized on Schedule JFW-ER13.

Q. What does this mean with regard to Mr. Selecky's $35 million offset?

A. If we were to apply Mr. Selecky's $35 million offset to that part of the total depreciation accrual that is actually for net salvage ($53.684 million), it would result in an accrual for net salvage of just $18.684 million (See page 2 of Schedule JFW-ER14, column 9 (the sum of lines 1 to 6 and lines 7 to 18)). This is just $1.523 million more than actual net salvage expense in 2008.

This demonstrates that Mr. Selecky's approach would essentially treat the net salvage accrual as a normalized expense; i.e., he would be using for all practical purposes the same expense method that the Staff tried to use in the *Laclede* case and that he has unsuccessfully tried to use in the past, including in Case No. ER-2007-0002.

As noted in my testimony above, the Commission has recognized that net salvage needs to be accrued and needs to be recovered prospectively over the life of the asset through depreciation expense. The Commission is correct, for the reasons discussed in the *Laclede* decision and in its order in Case No. ER-2007-0002. Mr. Selecky's proposed $35 million reduction will prevent this from occurring as I demonstrate in Schedule JFW-ER15, which I discuss below.

B. Mr. Selecky's Approach Is Inconsistent with the Uniform System of Accounts.

Q. Does the Uniform System of Accounts (USOA) address the issue of how net salvage costs should be accounted for, and if so, how?

A. Yes. As the Commission has already recognized, the Uniform System of Accounts provides that net salvage costs should be accrued over the course of an asset's service life (i.e., recognized in each period in which the asset provides service), and not merely recognized in the period in which any salvage-related costs are paid.

Q. Please explain.

A. "Depreciation," as defined in the Uniform System of Accounts, refers to the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of electric plant in the course of service from causes which can be reasonably anticipated or contemplated, against which the company is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and the requirements of public authorities.

Depreciation accrual rates are used to allocate, for accounting purposes, the service values of assets over their service lives. As a result, each year of service (and each generation of customers) is charged with the portion of the asset consumed or used in that year.

In the study that I performed that serves as the basis for my testimony, I used the straight line method of depreciation, with the average service life procedure to develop recommended depreciation accrual rates. In addition, I calculated the amount required to amortize the variance between the book depreciation reserve and the calculated accrued depreciation. I amortized the reserve variance over a period equal to the account's average remaining life. The total annual depreciation is based on a system of depreciation accounting which aims to distribute the cost of fixed capital assets, less net salvage, over the estimated useful life of the unit, or group of assets, in a systematic and rational manner.

Q. You referred to depreciation as the "loss in service value." What is service value?

A. Service value, as defined in the Uniform System of Accounts, is "the difference between original cost and net salvage value of electric plant."[19]

Q. Does the Uniform System of Accounts also define what it means by "net salvage value"?

A. Yes, it does. "'Net salvage value' means the salvage value of property retired less the cost of removal."[20] It is positive if the salvage value exceeds removal costs, and negative (i.e., a net cost) if removal costs exceed salvage value.

Q. Does the Uniform System of Accounts prescribe a method of Depreciation Accounting?

A. Yes. Both the electric and gas Uniform Systems of Accounts include General Instruction 11, "Accounting to be on accrual basis," which states, "The utility is required to keep its accounts on the accrual basis." Further, General Instruction 22, "Depreciation Accounting," pertains to electric utilities and states, "Utilities *must* use a method of depreciation that allocates in a systematic and rational manner the service value of depreciable property *over the service life of the property*." (Emphasis added.)

Q. What is the accrual basis of accounting?

A. Under the accrual basis of accounting, transactions are counted when the order is made, the item is delivered, or the service occurs, regardless of when any money for such orders, items, or services is actually received or paid. The accrual basis recognizes economic events without regard to when the related cash transaction

[19] 18 CFR, Chapter 1, Part 101 Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to the Provisions of the Federal Power Act. Definition 36.
[20] *Id.* Definition 19.

occurs. Thus, net salvage accruals are traditionally recognized when the service is rendered, i.e., during each year of an asset's service life, rather than when the actual salvage-related costs are incurred. To only recognize the costs at the time any salvage-related dollars change hands would be to follow the "cash" basis of accounting, contrary to the instructions of the Uniform System of Accounts.

Q. Based on the foregoing definitions and instructions, what do you conclude the Uniform System of Accounts requires regarding net salvage?

A. The USOA requires that net salvage, as a component of service value, must be allocated or accrued over the service life of the property in a systematic and rational manner.

Q. Are these definitions consistent with Mr. Selecky's proposed ratemaking treatment for net salvage?

A. No. These statements expressly provide that costs associated with an asset should be recovered over the asset's useful life, which contradicts his proposed ratemaking treatment for net salvage shown on his Schedule JTS-11 as he does not provide for the full recovery of future net salvage over the life of the asset. Mr. Selecky backs into a ratemaking depreciation amount and rate using a net salvage accrual amount that is only slightly more than current net salvage costs. Indeed, as noted above, his $35 million adjustment would create accruals for the much higher levels of net salvage the Company will experience in the future that are only approximately $1.5 million higher than recent historical levels on plant retired from a population of plant that was much smaller than will be retired in the future.

Q. Regarding the ratemaking treatment of net salvage, does Mr. Selecky's proposal provide for the recovery of future net salvage over the life of the asset?

A. No. Mr. Selecky's proposed $35 million reduction to depreciation ensures that the Company would under-recover its net salvage costs. The $35 million reduction was arbitrarily determined and was based on incorrect calculations, as I explained earlier. Mr. Selecky's incorrect assumption that the net salvage accruals are highly correlated with the net salvage cost caused him to propose a dramatic $35 million reduction to depreciation expense when such reduction is not warranted.

Q. Please illustrate why Mr. Selecky's proposal will create an under-recovery of net salvage costs.

A. As the examples presented in Schedule JFW-ER15 demonstrate, Mr. Selecky's proposal will result in a huge (nearly $758 million) under-recovery for Account 364, Poles, and in Account 365, Overhead Conductors, over the life of current plant in service. The $758 million under-recovery is the sum of the shortfall for Account 364 ($524,377,972 – page 2 of Schedule JFW-ER15) and the shortfall for Account 365 ($233,774,201 – page 4 of Schedule JFW-ER15).

Q. Would treating net salvage costs as operating expenses be consistent with the treatment required in the Uniform System of Accounts?

A. No. The Uniform System of Accounts requires that both components of net salvage (gross salvage and cost of removal) be recorded to Account 108, "Accumulated Provision for Depreciation." This is a balance sheet account, not an operating income account, which confirms that the USOA treats net salvage as a capital cost, not an operating expense.

C. Authoritative Texts on Depreciation Prescribe the Accrual Approach Used by AmerenUE, as Recognized by the Commission.

Q. Do authoritative texts on depreciation address the issue of whether net salvage should be accrued during the life of the related plant?

A. Yes, they do.

Q. What do these texts provide?

A. As earlier noted, *Public Utility Depreciation Practices* and *Depreciation Systems* are preeminent texts on the subject of depreciation, and each one requires that net salvage be ratably accrued over the life of the related property. For example, *Public Utility Depreciation Practices*, published in 1996 by the National Association of Regulatory Utility Commissioners (NARUC) states:

> Closely associated with this reasoning are the accounting principle that revenues be matched with costs and the regulatory principle that utility customers who benefit from the consumption of plant pay for the cost of that plant, no more, no less. The application of the latter principle also requires that the estimated cost of removal of plant be recovered over its life.

(Emphasis added.)

Depreciation Systems, another highly regarded, authoritative text on depreciation matters states:

> The matching principle specifies that all costs incurred to produce a service should be matched against the revenue produced. Estimated future costs of retiring of an asset currently in service *must* be accrued and allocated as part of the current expenses.

(Emphasis added.)

Thus, both of these texts use mandatory language when describing the traditional approach of accruing "retirement" or "removal" costs over the life of the plant.

Q. At pages 35 and 36 of his testimony, Mr. Selecky sets out a quote from NARUC's *Public Utility Depreciation Practices* and states that his expense approach is "acceptable" to NARUC and is "used by other jurisdictions." Does this quote support his position?

A. No. As is readily apparent upon reading it, the quotation is merely a descriptive statement indicating that *some* commissions have used current period accounting for gross salvage and/or cost of removal – i.e., less than a handful have used the expense method. While the authors of *Public Utilities Depreciation Practices* describe Mr. Selecky's approach because it has seen very minimal use, they do not endorse it, and in fact, as noted above, prescribe the opposite treatment. For example, the paragraph immediately preceding the paragraphs quoted by Mr. Selecky states:

> Historically, most regulatory commissions have required that both gross salvage and cost of removal be reflected in depreciation rates. The theory behind this requirement is that, since most physical plant placed in service will have some residual value at the time of retirement, the original cost recovered through depreciation should be reduced by that amount. Closely associated with this reasoning is the accounting principle that revenues be matched with costs and the regulatory principle that utility customers who benefit from consumption of plant pay for the cost of that plant, no more, no less. The application of that principle also *requires* that the cost of removal be recovered over its life.

(Emphasis added.)

The expense method essentially relied on by Mr. Selecky does *not* recover cost of removal over the life of the plant.

Q. What about Mr. Selecky's citations to the use of the expense approach in Pennsylvania, New Jersey, Delaware and Georgia?

A. Aside from the fact that all but a few states use the accrual approach, as supported by the USOA, *Wolf and Fitch*, and *Public Utility Depreciation Practices*, I would note that Mr. Selecky is recycling old news. A review of the record in the *Laclede* case indicates that the Commission was aware of how at least three of these states handled net salvage when that case was re-tried in 2004.[21] I am familiar with all of these states. The expense treatment of net salvage in Pennsylvania is dictated by a Pennsylvania Supreme Court decision construing a particular Pennsylvania statute. *See Penn Sheraton Hotel v. Pennsylvania Pub. Serv. Comm'n*, 184 A.2d 324 (Pa. 1962). I would also note that a decision not mentioned by Mr. Selecky, from Michigan, indicates that just four or five months ago the Michigan Commission examined the issue in detail in a case where Mr. Selecky advocated the expense approach, and rejected Mr. Selecky's position. See *In the Matter of the Application of Consumers Energy Company for Accounting Approval of Depreciation Rates for Gas Utility Plant*, Case No. U-15629 (Mi. P.S.C. Sept. 29, 2009). In that case, Mr. Selecky's argument was summarized by the Michigan Commission as follows:

> James T. Selecky, a consultant in the field of public utility regulation and a principal in the firm of Brubaker & Associates, Inc., testified on behalf of ABATE. According to Mr. Selecky, Consumers' proposed depreciation rates are excessive because the cost of removal component of the depreciation rates reflects unreasonable amounts for future inflation. As a result, the cost of removal expense included in the depreciation rates greatly exceeds the actual net salvage expense currently incurred and the net salvage expense likely to be incurred in the near future.
>
> Mr. Selecky testified that Consumers' proposed net salvage ratios produce an annual net salvage expense of $52.92 million. However, according to Mr. Selecky, Consumers' average actual annual net salvage expense over the last five years was $6.89 million, an amount that is 8 times lower than the company's proposed cost of removal expense. 3 Tr 298. Mr. Selecky testified that based cn his analysis, Consumers has overstated the amount of net salvage that is included in depreciation rates and that this overstatement of net salvage places an unreasonable burden on today's ratepayers and provides a substantial benefit to future ratepayers. Mr. Selecky opined that the amount of net salvage included in Consumers'

[21] Tr. p. 1455, line 5; p. 1456, line 15; p. 2009, lines 19-21 (Case No. ER-99-315 – hearings September 22 to 24, 2004) (Where the approaches used in Pennsylvania, New Jersey and Georgia were discussed).

> depreciation rates should be reduced to reflect a more accurate expectation of the level of net salvage expense that the company expects to incur over the next five to ten year period. Mr. Selecky testified that the disparity between net salvage expense included in Consumers' depreciation rates and actual net salvage costs is largely attributable to an overestimate of future inflation rates.
>
> Mr. Selecky recommended that Consumers' net salvage expense should be based on the actual net salvage cost experience of the company over 15 years, the longest period for which data was available. Once the historical 15-year average was identified, this amount was then grossed-up for inflation over a period of 10 years to determine an average accrual of $9.956 million for net salvage. 3 Tr 314-315; Exhibits AB-3 and AB-4. Mr. Selecky noted that periodic depreciation cases will allow for adjustments if cost of removal expense increases in the future.
>
> In addition to Mr. Selecky's expense-based argument, the Michigan Attorney General argued for a "present value" method like that cited by Mr. Selecky from Maryland (Selecky direct, p. 35).

The Michigan Commission did not adopt Mr. Selecky's proposal, rejected the "present value" approach, and endorsed the continued use of the accrual method, stating as follows:

> As discussed by Mr. Watson in his rebuttal testimony, the net present value approach proposed by the Attorney General has been consistently rejected by most Commissions and does not comport with depreciation methods recommended by authoritative sources on depreciation accounting. The accrual for net salvage must be based on estimates of the future cost that will be incurred, not the removal cost at today's price level. Therefore, it is appropriate to ask current customers to pay for future costs of removal at inflated price levels, and, as Mr. Watson pointed out, the rate base offset compensates rate payers for the prior payment for the costs incurred by the utility. Finally, the Commission finds that the Attorney General's proposed method significantly decreases the cash flows available to utilities to meet their infrastructure and other public service obligations. This, in turn, has a negative financial effect on both the utility and its customers by requiring that such obligations be met with more expensive sources of external financing and by driving up the cost generally of obtaining money in the capital markets. The Commission finds that the Attorney General has not shown that the adoption of the net present value method would justify these increased costs for utility consumers.

Q. Please summarize why it is inappropriate to treat net salvage as an operating expense like a very few jurisdictions do.

A. It is inappropriate to treat net salvage costs as Mr. Selecky proposes because operating expenses are period costs that generally do not provide a benefit beyond the period during which they were incurred. If a utility burns coal, it expenses it and the power generated by the coal that it expenses benefits customers at the time the expense is booked. Net salvage costs, in contrast, are one-time costs related to property that provided a benefit *throughout* its service life – generally over many years and in the case of mass prcperty, over many decades. Thus, net salvage costs are capital costs. When a utility places a capital item into service (e.g., a $50 million turbine), the utility doesn't expense the $50 million all at once, but rather, depreciates it over its service life – over the period during which it provides benefits to customers. Net salvage is no different. In order to recognize net salvage costs in the same periods in which the related property provide benefits, net salvage costs must be recovered ratably over the life of the property.

D. Estimation of Net Salvage

Q. Mr. Selecky raises concerns about the uncertainty of estimates of net salvage. Do you share his concern?

A. No, I do not. It is well recognized that setting depreciation rates requires estimates for both the service life and net salvage values. The estimation of net salvage is based on well-accepted techniques for developing historical indications of net salvage percents; considerations of the age of retirements, historically as compared to the future; consideration of historical changes in price level as compared to the future; and the estimates of net salvage used by other utilities. Estimates based on historical indications are generally very conservative in comparison to my expectation of future net salvage percents because of the total change in price level that will occur between the placement and retirement of today's plant in service as compared to the change in price level that occurred between the placement and retirement of plant that already has been retired and is reflected in the analyses. The greater change in price level is not the result of a greater rate of inflation. Rather, it is based on the longer period of time that the plant will be in service, thereby allowing for a greater change in price level at either inflation rates comparable to those that have been experienced or at even lesser rates.

Q. What historical data are analyzed for the purpose of estimating net salvage?

A. The data consist of the entries made by AmerenUE to record retirements, cost of removal and gross salvage. The historical data were available for the years 1961 through 2008.

Q. What method is used to analyze these net salvage data?

A. The net salvage data are analyzed by expressing the net salvage and its two components, cost of removal and gross salvage, as percents of the original cost retired on annual and moving average bases. The use of averages smooths the annual fluctuations and assists in identifying underlying trends.

E. The Current Relationship of Net Salvage Accruals to Actual Net Salvage Costs Is to Be Expected and Is Wholly Appropriate

Q. Does the net salvage accrual for transmission and distribution plant currently exceed the net salvage cost, and by what amount?

A. Yes, the net salvage accrual does exceed the current level of net salvage expense. However, Mr. Selecky overstates this difference because his calculation of the net salvage accrual is incorrect, as described earlier.

Q. Does the fact that the net salvage accrual currently exceeds the current level of net salvage expense justify an adjustment as Mr. Selecky suggests?

A. No.

Q. Why not?

A. The net salvage accrual exceeds the net salvage expense today because the transmission and distribution systems have been continuously growing and because inflation will make future removal costs much more expensive than the costs to remove plant in the past. Inflation between installation and removal is already taken into account because net salvage is a percent of original cost based on historical experience. The accrual for net salvage is related to the current plant in service, which includes $4.208 billion of distribution plant investment and $639.496 million of transmission plant investment that serves over a million residential customers. The size of AmerenUE's system has nearly doubled in the last 50 years, and the total distribution plant investment has increased by a factor of sixteen. The growth in distribution plant investment, transmission plant investment, and customers served is shown in Schedule JFW-ER16.

As a result of this growth, the system has not reached a steady state, which is to say that each year the amount of plant added exceeds the amount of plant retired. Because this growth has occurred over a long period of time (and continues), the amount of plant retired is not equal to the plant balance divided by the average life.

Only when the plant reaches this steady state position should the net salvage accrual equal the net salvage cost for the total plant in service.

Another way of considering the situation of AmerenUE is to recognize that the plant currently being retired served fewer customers during its life than the plant that is currently in service. The current net salvage cost should have been recovered over the course of the related plant's life. The amount of net salvage accrued, and presumably collected from customers, for this retired plant was based on the plant that was in service during its life. This amount of plant was sufficient to serve, on average, 500,000 to 600,000 customers, and perhaps as many as 650,000. Thus, neither the past net salvage accruals or the current net salvage cost were based on the plant necessary to serve over a million customers. These values, computed on the basis of plant serving just about half the current customer base, will not (and logically should not) compare to the current net salvage accrual computed for the plant necessary to serve the current, much larger customer base.

Q. Will the net salvage cost for plant presently in service ever exceed the net salvage accrual for plant presently in service?

A. Yes, it will. As the plant presently in service ages and retirements related to such plant increase, the net salvage costs related to these retirements will be greater than the net salvage accruals for the surviving balance. Ultimately, the net salvage accruals in total and the net salvage costs in total will equal one another. I have illustrated the pattern of future net salvage accruals and net salvage costs related to Accounts 364 ("Poles, Towers and Fixtures") and 365 ("Overhead Conductors and Devices") for AmerenUE, in Schedule JFW-ER17.

This schedule illustrates the future net salvage costs (see column 4) as well as the future net salvage accruals (column 6) based on the Company's net salvage and survivor curve estimates, which themselves are based on a thorough analysis of retirement activity in these accounts since 1961. As this illustration shows, the current net salvage accruals exceed the current net salvage costs (e.g., in 2009 for Account 364 (page 1 of Schedule JFW-ER17), the accrual is $25.453 million versus a 2009 cost level of $10.351 million. However, as the plant ages and retirements increase, this relationship reverses and net salvage costs exceed net salvage accruals. This begins to happen in Account 364 around 2027, when the accrual is $19.374 million but the expense is higher -- $20.174 million. Further, as this schedule shows, over the entire period for which the property is in service the cumulative net salvage cost will almost perfectly match the cumulative net salvage accruals. See bottom of page 2 and bottom of page 4 (column 5 versus column 7) on Schedule JFW-ER17.

Thus, the current depreciation rates correctly recover the net salvage costs *over the lives of the assets*. Note that this example is predicated on the current estimates of survivor curves and net salvage for these two accounts. Periodic studies of both parameters during the remaining life of the plant, along with appropriate true-ups, will insure that the same pattern and balance occur in actuality as we move through time.

Q. Have you calculated this same example using Mr. Selecky's proposed net salvage?

A. Yes, I have. If Mr. Selecky would have calculated the actual net salvage accruals correctly, his proposal to arbitrarily lower net salvage accruals by $35 million has the net effect of decreasing the net salvage estimate by 65% for each plant account. For Accounts 364 and 365, this would mean net salvage estimates of negative 52 percent and negative 19 percent respectively. Schedule JFW-ER15 shows the effect on net salvage accruals of using these estimates in place of AmerenUE's estimates. For both accounts, the net salvage accruals (column 6) would be lower than the net salvage cost (column 4) for *every year* going forward. As the property ages and retirements increase, this differential increases, and the cumulative effect is enormous. For Account 364, Mr. Selecky's proposal results in a depreciation shortfall of $524 million (see bottom of page 2 of Schedule JFW-ER15, column 9). For Account 365, his proposal results in a shortfall of $234 million (see bottom of page 4 of Schedule JFW-ER15, column 9).

Q. Should the fact that current net salvage accruals exceed current net salvage costs raise concerns that the Company will over-recover its expenditures?

A. No, it should not. As the examples presented in JFW-ER17 demonstrate, the net salvage accruals and net salvage costs will balance over the life of the assets using the traditional accrual method sanctioned by authoritative texts and the USOA. It is Mr. Selecky's proposal that raises concerns, as it fails to recover $758 million in net salvage costs for these two accounts alone.

Additionally, the total cost of service for recovery of capital expenditures, both plant in service and negative net salvage, is significantly less than the total expenditures for additions and net salvage costs. As shown in Schedule JFW-ER18, the sum of additions and net salvage costs is consistently larger than the annual accruals for plant and net salvage. The same growth that causes net salvage accruals to exceed net salvage costs also causes plant additions to exceed the depreciation expense for the recovery of original cost. If Mr. Selecky were consistent with his concerns that the utility recover only those costs that it has recently spent, he would have pointed out the disparity in plant additions as well.

Finally, net salvage accruals are recorded to the depreciation reserve, which enables the monitoring of the total recovery so that such recovery does not exceed the total costs. Moreover, the depreciation reserve is a reduction to rate base for rate-making purposes. Thus, ratepayers in effect earn the utility's weighted average cost of capital on the depreciation reserve, and those earnings are passed through to the customers who are benefitting from the plant in the form of lower rates. Thus, the accrual of net salvage in advance of cost incurrence reduces rate base and revenue requirements. Thus, the system is balanced.

Q. Please summarize your testimony related to net salvage.

A. Depreciation is the loss in service value and service value is the difference between original cost and net salvage value. Thus, net salvage should be a part of the straight line depreciation accrual. Net salvage costs, i.e., removal costs, associated with plant should be allocated to customers served by that plant.

The estimates of net salvage used in developing the net salvage accrual are very reasonable and likely understate the future net salvage costs that will occur.

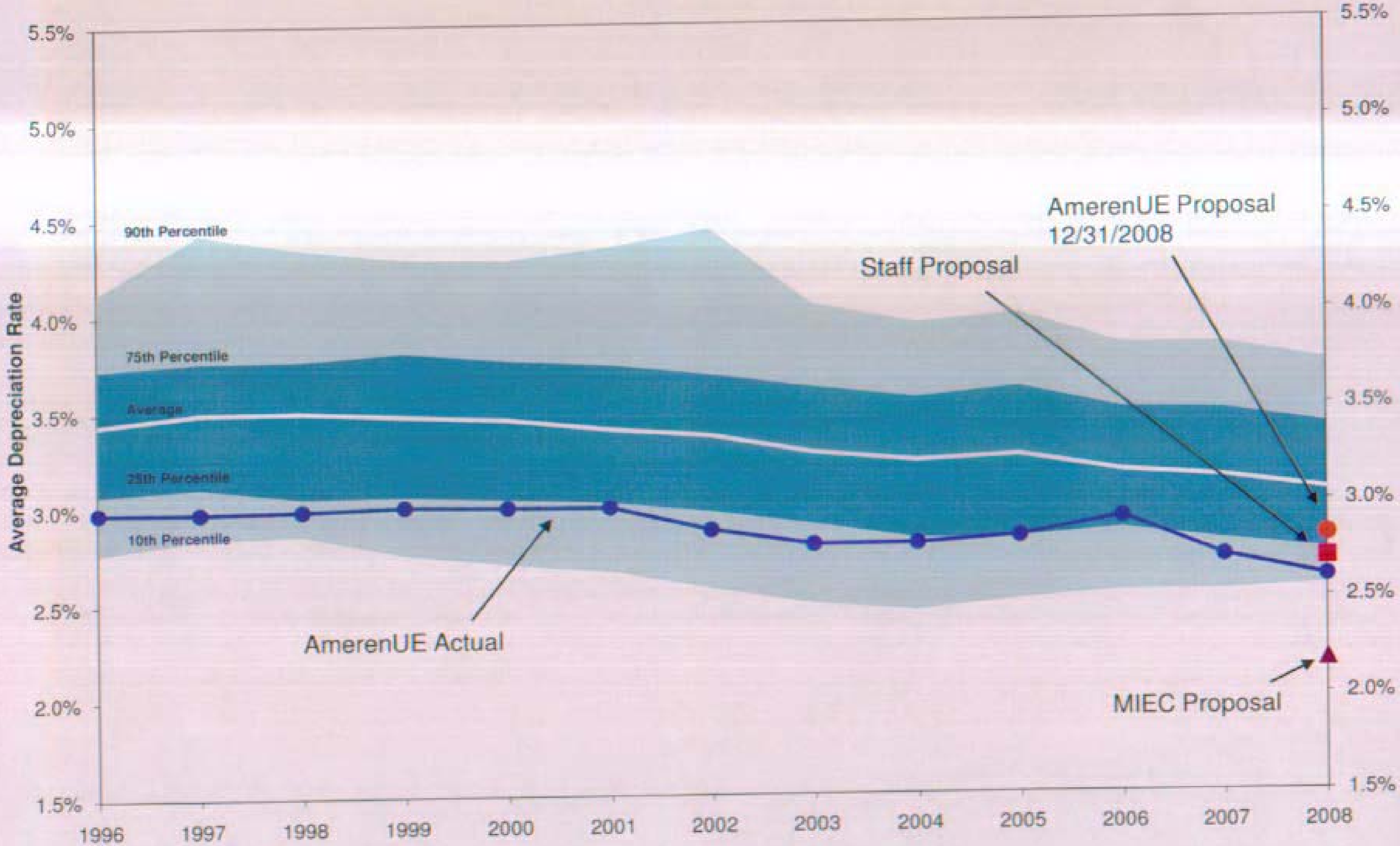
It is appropriate for the net salvage accrual to exceed the current net salvage cost during a period of growth and prior to reaching a steady state for the plant. As retirements continue to be made of the plant presently in service, the net salvage costs will exceed the net salvage accrual for this plant. When all current plant in service is ultimately retired completing its entire life cycle, the cumulative net salvage costs will equal the cumulative net salvage accruals assuming the estimates are correct. During the life cycle, there will be years when the net salvage accruals exceed the net salvage costs and years when the net salvage costs exceed the net salvage accrual.

The vast majority of other regulatory commissions use the straight line whole life or remaining life accrual of net salvage during the life of the asset. This practice did not occur by happenstance. Rather it evolved over the years spanning many rate cases and it came about through careful deliberation of the issue that resulted in a sound regulatory policy regarding the ratemaking treatment related to net salvage.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

Average Depreciation Rate for Investor-Owned Electric Utilities in the US (Total Plant)

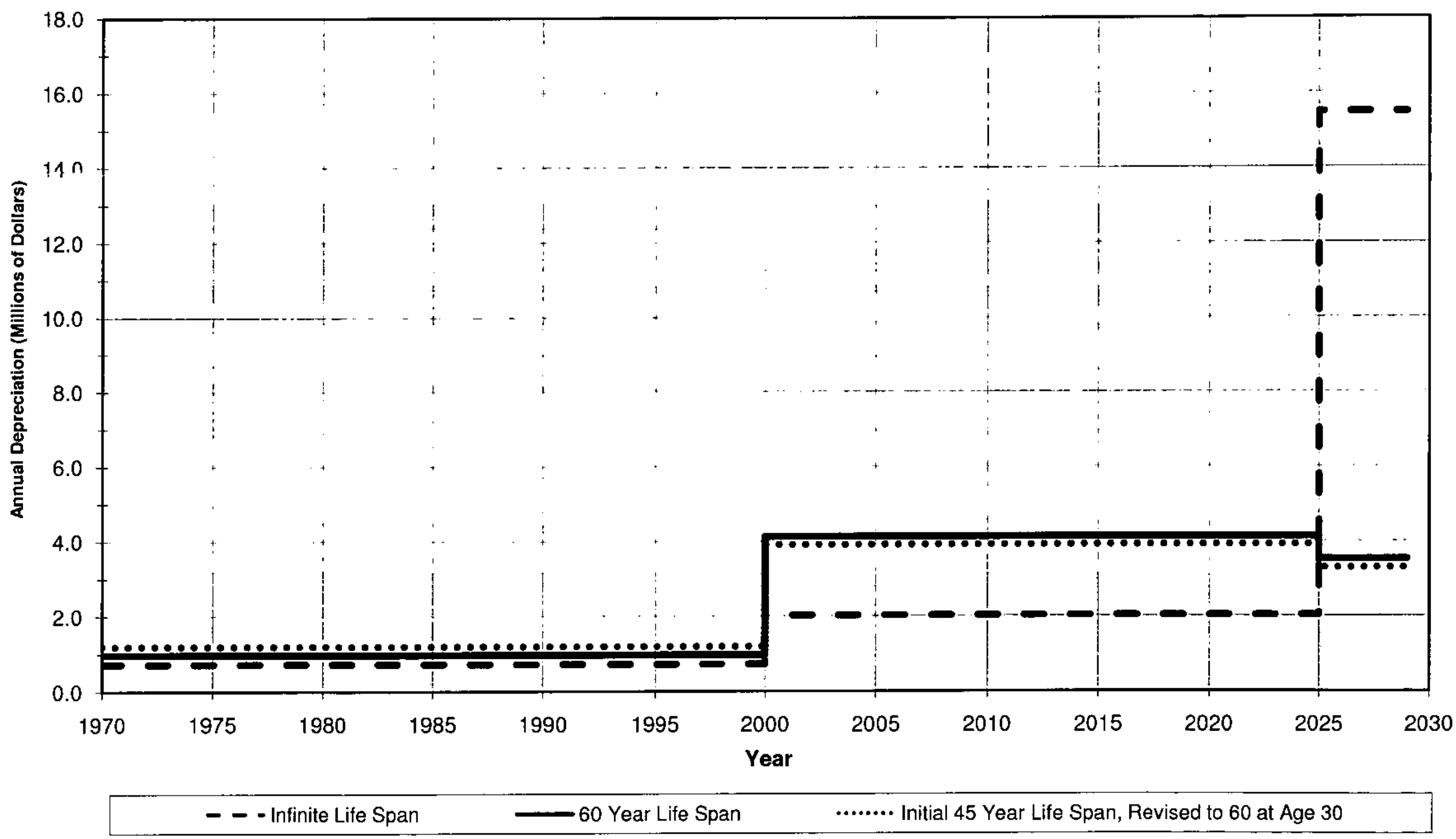


Sources and Notes:
Depreciation and amortization rates and AmerenUE actual based on FERC Form 1 data for total electric plant.

AMERENUE - ELECTRIC
COMPARISON OF ANNUAL DEPRECIATION USING LIFE SPANS AND ANNUAL DEPRECIATION ASSUMING INFINITE LIFE SPAN
ASSUMPTIONS: $50,000,000 ADDED IN 1970; $100,000,000 ADDED IN 2000; ACTUAL RETIREMENT IN 2030; AND 60-O1 INTERIM SURVIVOR CURVE

	60 Year Life Span				Initial 45 Year Life Span, Revised to 60 at Age 30				Infinite Life Span			
YEARS (1)	I.Y.1970 (2)	I.Y.2000 (3)	Total (4)	Average per Year (5)	I.Y.1970 (6)	I.Y.2000 (7)	Total (8)	Average per Year (9)	I.Y.1970 (10)	I.Y.2000 (11)	Total (12)	Average per Year (13)
1970-2000	29,166,667		29,166,667	972,222	35,899,891		35,899,891	1,196,663	21,875,000		21,875,000	729,167
2000-2025	17,939,815	85,317,460	103,257,275	4,130,291	12,328,795	85,317,460	97,646,255	3,905,850	13,454,861	37,326,389	50,781,250	2,031,250
2025-2030	2,893,519	14,682,540	17,576,058	3,515,212	1,771,315	14,682,540	16,453,854	3,290,771	14,670,139	62,673,611	77,343,750	15,468,750
Total	50,000,000	100,000,000	150,000,000		50,000,000	100,000,000	150,000,000		50,000,000	100,000,000	150,000,000	

Comparison of Annual Depreciation Using Life Spans and Annual Depreciation Assuming Infinite Life Span



AmerenUE

Average Service Lives of Current Steam Production Plant in Service Based on No Future Interim Activity

Account	Historical Retirements Amount	Historical Retirements Pct of Total Additions	Historical Retirements Realized ASL	12/31/2008 Plant Balance Amount	12/31/2008 Plant Balance Pct of Total Additions	12/31/2008 Plant Balance Avg Age	Total Additions	Staff Average Service Life	Required ASL of 12/31/2008 Balance	Implied Final Retirement Date
(1)	(2)	(3)=(2)/(8)	(4)	(5)	(6)=(5)/(8)	(7)	(8)=(2)+(5)	(9)	(10)	(11)
Meremac Steam Production Plant										
311 Structures and Improvements	2,782,193	6.53%	21.84	39,820,843	93.47%	28.49	42,603,036	56	58.39	2038
312 Boiler Plant Equipment	71,853,819	14.74%	19.42	415,492,860	85.26%	14.41	487,346,679	45	49.42	2043
314 Turbogenerator Units	12,151,101	12.71%	27.91	83,427,432	87.29%	24.71	95,578,533	47	49.78	2033
315 Accessory Electric Equipment	2,241,539	4.94%	29.00	43,146,199	95.06%	20.18	45,387,738	51	52.14	2040
316 Miscellaneous Power Plant Equipment	2,782,527	12.68%	12.85	19,153,270	87.32%	10.88	21,935,797	45	49.67	2047
Total Meramec Steam Production Plant	*91,811,180*	*13.25%*	*20.65*	*601,040,604*	*86.75%*	*17.07*	*692,851,784*	*46*	*50.27*	*2041*
Sioux Steam Production Plant										
311 Structures and Improvements	1,814,141	4.74%	20.25	36,425,327	95.26%	17.56	38,239,468	56	57.78	2048
312 Boiler Plant Equipment	61,492,613	13.56%	20.55	392,050,516	86.44%	13.88	453,543,129	45	48.83	2043
314 Turbogenerator Units	11,747,103	10.57%	26.11	99,339,660	89.43%	13.81	111,086,763	47	49.47	2044
315 Accessory Electric Equipment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
316 Miscellaneous Power Plant Equipment	2,120,630	17.02%	11.78	10,342,298	82.98%	13.00	12,462,928	45	51.81	2047
Total Sioux Steam Production Plant	*80,849,180*	*12.37%*		*572,694,393*	*87.63%*	*14.19*	*653,543,573*	*46*	*52.88*	*2047*
Labadie Steam Production Plant										
311 Structures and Improvements	3,945,838	5.73%	17.21	64,976,426	94.27%	23.72	68,922,264	56	58.36	2043
312 Boiler Plant Equipment	129,314,256	15.39%	18.49	711,025,145	84.61%	19.69	840,339,401	45	49.82	2038
314 Turbogenerator Units	43,491,994	17.27%	25.52	208,376,677	82.73%	15.86	251,868,672	47	51.48	2044
315 Accessory Electric Equipment	9,611,288	10.60%	23.77	81,057,131	89.40%	21.17	90,668,419	51	54.23	2041
316 Miscellaneous Power Plant Equipment	3,020,813	13.51%	10.41	19,334,388	86.49%	16.37	22,355,201	45	50.40	2042
Total Labadie Steam Production Plant	*189,384,189*	*14.86%*		*1,084,769,767*	*85.14%*	*19.25*	*1,274,153,956*	*46*	*54.52*	*2043*
Common Steam Production Plant										
311 Structures and Improvements	-	0.00%	-	1,959,206	100.00%	7.48	1,959,206	56	56.00	2057
312 Boiler Plant Equipment	331,472	0.89%	22.29	36,983,418	99.11%	7.48	37,314,890	45	45.20	2046
315 Accessory Electric Equipment	-	0.00%	-	3,129,975	100.00%	7.16	3,129,975	51	51.00	2052
316 Miscellaneous Power Plant Equipment	-	0.00%	-	20,843	100.00%		20,843	45	45.00	2053
Total Common Steam Production Plant	*331,472*	*0.78%*		*42,093,441*	*99.22%*	*7.48*	*42,424,914*	*46*	*46.31*	*2047*
Rush Island Steam Production Plant										
311 Structures and Improvements	1,796,833	3.25%	18.93	53,514,432	96.75%	25.34	55,311,266	56	57.24	2040
312 Boiler Plant Equipment	43,127,556	10.05%	22.13	385,943,531	89.95%	19.05	429,071,087	45	47.56	2037
314 Turbogenerator Units	21,965,799	13.82%	22.51	136,992,202	86.18%	18.67	158,958,002	47	50.93	2040
315 Accessory Electric Equipment	2,694,788	6.63%	26.98	37,966,123	93.37%	18.15	40,660,911	51	52.71	2043
316 Miscellaneous Power Plant Equipment	1,510,254	11.79%	13.42	11,297,925	88.21%	15.55	12,808,179	45	49.22	2042
Total Rush Island Steam Production Plant	*71,095,231*	*10.20%*		*625,714,213*	*89.80%*	*19.39*	*696,809,444*	*47*	*51.98*	*2041*
TOTAL STEAM PRODUCTION PLANT										
311 Structures and Improvements	10,339,006	4.99%	19.29	196,696,233	95.01%	23.82	207,035,239	56	57.93	2042
312 Boiler Plant Equipment	306,119,717	13.62%	19.64	1,941,495,470	86.38%	17.03	2,247,615,186	45	49.00	2040
314 Turbogenerator Units	89,355,998	14.47%	25.18	528,135,972	85.53%	17.60	617,491,970	47	50.69	2041
315 Accessory Electric Equipment	18,222,308	8.36%	25.73	199,836,020	91.64%	19.19	218,058,327	51	53.30	2042
316 Miscellaneous Power Plant Equipment	9,434,224	13.56%	11.92	60,148,724	86.44%	13.89	69,582,948	45	50.19	2044
TOTAL	***433,471,252***	***12.90%***	***20.86***	***2,926,312,418***	***87.10%***	***17.67***	***3,359,783,670***	***46***	***50.22***	***2041***

Notes:

Column 10 is the average service life of current plant in service required for the total historical plant additions in column 8 to have the average service life proposed by Staff.

Column 11 is the final retirement date for each location and plant account assuming the assets have the average service life proposed by staff and there are no future interim additions or retirements.

AmerenUE

Average Service Life for Steam Production Plant Accounts Based on Projected Interim Addition and Retirement Activity

Account	Historical Retirements			Future Retirements			Total	Staff Average Service Life	Actual Average Service Life
	Amount	Pct of Total Additions	Avg Age	Amount	Pct of Total Additions	Avg Age	Total Additions		
(1)	(2)	(3)=(2)/(8)	(4)	(5)	(6)=(5)/(8)	(7)	(8)=(2)+(5)	(9)	(10)
Meremac Steam Production Plant									
311 Structures and Improvements	2,782,193	5.41%	21.84	48,685,890	94.59%	35.73	51,468,083	56	34.98
312 Boiler Plant Equipment	71,853,819	11.91%	19.42	531,325,936	88.09%	23.09	603,179,756	45	22.65
314 Turbogenerator Units	12,151,101	10.21%	27.91	106,831,502	89.79%	31.11	118,982,603	47	30.78
315 Accessory Electric Equipment	2,241,539	4.00%	29.00	53,748,224	96.00%	28.37	55,989,763	51	28.40
316 Miscellaneous Power Plant Equipment	2,782,527	10.14%	12.85	24,670,976	89.86%	20.18	27,453,503	45	19.44
Total Meramec Steam Production Plant	*91,811,180*	*10.71%*	*20.65*	*765,262,528*	*89.29%*	*25.29*	*857,073,707*	*46*	*24.79*
Sioux Steam Production Plant									
311 Structures and Improvements	1,814,141	3.12%	20.25	56,272,731	96.88%	31.55	58,086,872	56	31.20
312 Boiler Plant Equipment	61,492,613	8.38%	20.55	672,555,002	91.62%	26.20	734,047,616	45	25.73
314 Turbogenerator Units	11,747,103	6.64%	26.11	165,176,920	93.36%	27.01	176,924,023	47	26.95
315 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	51	28.97
316 Miscellaneous Power Plant Equipment	2,120,630	10.60%	11.78	17,880,445	89.40%	25.49	20,001,075	45	24.04
Total Sioux Steam Production Plant	*80,849,180*	*7.71%*		*967,376,331*	*92.29%*	*26.80*	*1,048,225,511*	*46*	*24.73*
Labadie Steam Production Plant									
311 Structures and Improvements	3,945,838	3.13%	17.21	122,276,306	96.87%	37.64	126,222,145	56	37.00
312 Boiler Plant Equipment	129,314,256	8.95%	18.49	1,315,436,439	91.05%	30.72	1,444,750,695	45	29.63
314 Turbogenerator Units	43,491,994	9.08%	25.52	435,423,193	90.92%	30.09	478,915,187	47	29.67
315 Accessory Electric Equipment	9,611,288	5.58%	23.77	162,776,990	94.42%	33.97	172,388,278	51	33.40
316 Miscellaneous Power Plant Equipment	3,020,813	6.68%	10.41	42,227,463	93.32%	29.00	45,248,276	45	27.76
Total Labadie Steam Production Plant	*189,384,189*	*8.35%*		*2,078,140,392*	*91.65%*	*31.21*	*2,267,524,581*	*46*	*28.61*
Common Steam Production Plant									
311 Structures and Improvements	-	0.00%	-	3,641,867	100.00%	29.37	3,641,867	56	29.37
312 Boiler Plant Equipment	331,472	0.42%	22.29	78,511,986	99.58%	25.65	78,843,458	45	25.64
315 Accessory Electric Equipment	-	0.00%	-	6,097,524	100.00%	28.00	6,097,524	51	28.00
316 Miscellaneous Power Plant Equipment	-	0.00%	-	44,885	100.00%	25.14	44,885	45	25.14
Total Common Steam Production Plant	*331,472*	*0.37%*		*88,296,262*	*99.63%*	*25.97*	*88,627,734*	*46*	*25.87*
Rush Island Steam Production Plant									
311 Structures and Improvements	1,796,833	1.61%	18.93	109,851,001	98.39%	39.22	111,647,834	56	38.89
312 Boiler Plant Equipment	43,127,556	4.40%	22.13	937,688,863	95.60%	30.48	980,816,419	45	30.11
314 Turbogenerator Units	21,965,799	6.46%	22.51	318,201,491	93.54%	31.73	340,167,290	47	31.14
315 Accessory Electric Equipment	2,694,788	3.14%	26.98	83,064,658	96.86%	33.48	85,759,446	51	33.27
316 Miscellaneous Power Plant Equipment	1,510,254	5.26%	13.42	27,211,387	94.74%	29.29	28,721,640	45	28.46
Total Rush Island Steam Production Plant	*71,095,231*	*4.60%*		*1,476,017,399*	*95.40%*	*31.54*	*1,547,112,630*	*47*	*30.09*
TOTAL STEAM PRODUCTION PLANT									
311 Structures and Improvements	10,339,006	2.95%	19.29	340,727,794	97.05%	36.78	351,066,800	56	36.27
312 Boiler Plant Equipment	306,119,717	7.97%	19.64	3,535,518,227	92.03%	28.54	3,841,637,944	45	27.83
314 Turbogenerator Units	89,355,998	8.01%	25.18	1,025,633,105	91.99%	30.21	1,114,989,103	47	29.81
315 Accessory Electric Equipment	18,222,308	4.80%	25.73	361,178,629	95.20%	32.17	379,400,937	51	31.86
316 Miscellaneous Power Plant Equipment	9,434,224	7.77%	11.92	112,035,155	92.23%	26.57	121,469,380	45	25.43
TOTAL	***433,471,252***	***7.46%***	***20.82***	***5,375,092,912***	***92.54%***	***29.58***	***5,808,564,164***	***46***	***28.93***

Notes:
Column 10 is the average service life of the total additions shown in Column 8 if the plant is retired at the final retirement date proposed by the company.

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SCHEDULE 1. ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENTS, ORIGINAL COST, CALCULATED ANNUAL DEPRECIATION ACCRUALS AND CALCULATED ACCRUED DEPRECIATION RELATED TO UTILITY PLANT AT DECEMBER 31, 2008

	Depreciable Group (1)	Probable Retirement Year (2)	Survivor Curve (3)	Net Salvage, % (4)	Original Cost at December 31, 2008 (5)	Calculated Accrued Depreciation (6)	Calculated Annual Accrual Amount (7)	Calculated Annual Accrual Rate (8)=(7)/(5)
Depreciable Plant								
	Steam Production Plant							
	Meramec Steam Production Plant							
311	Structures & Improvements	01-2022	115 - R1.5 (a)	(2)	$ 39,820,842.78	$ 22,724,769	$ 1,389,205	3.49
312	Boiler Plant Equipment	01-2022	60 - L0.5 (a)	(15)	415,492,860.03	201,106,640	22,255,707	5.36
314	Turbogenerator Units	01-2022	70 - L0.5 (a)	(5)	83,427,432.21	44,360,471	3,463,186	4.15
315	Accessory Electrical Equipment	01-2022	80 - S0 (a)	(3)	43,146,198.88	20,572,681	1,874,969	4.35
316	Miscellaneous Power Plant Equipment	01-2022	60 - O1 (a)	0	19,153,270.10	6,402,494	1,035,728	5.41
	Total Meramec Steam Production Plant				*601,040,604.00*	*295,167,055*	*30,018,795*	
	Sioux Steam Production Plant							
311	Structures & Improvements	09-2033	115 - R1.5 (a)	(2)	36,425,326.84	11,764,291	1,054,950	2.90
312	Boiler Plant Equipment	09-2033	60 - L0.5 (a)	(15)	392,050,515.53	136,533,737	14,296,957	3.65
314	Turbogenerator Units	09-2033	70 - L0.5 (a)	(5)	99,339,660.18	29,735,463	3,287,927	3.31
315	Accessory Electrical Equipment	09-2033	80 - S0 (a)	(3)	34,536,592.32	11,081,837	1,049,565	3.04
316	Miscellaneous Power Plant Equipment	09-2033	60 - O1 (a)	0	10,342,297.71	2,727,765	347,498	3.36
	Total Sioux Steam Production Plant				*572,694,392.58*	*191,843,093*	*20,036,897*	
	Labadie Steam Production Plant							
311	Structures & Improvements	09-2042	115 - R1.5 (a)	(2)	64,976,425.55	24,538,479	1,296,133	1.99
312	Boiler Plant Equipment	09-2042	60 - L0.5 (a)	(15)	594,753,745.39	231,961,342	16,561,293	2.78
312.03	Boiler Plant Equipment - Aluminum Coal Cars		26 - R2.5	30	116,271,399.78	35,659,912	3,133,514	2.69
314	Turbogenerator Units	09-2042	70 - L0.5 (a)	(5)	208,376,677.30	56,828,019	5,517,616	2.65
315	Accessory Electrical Equipment	09-2042	80 - S0 (a)	(3)	81,057,131.25	28,241,210	1,822,077	2.25
316	Miscellaneous Power Plant Equipment	09-2042	60 - O1 (a)	0	19,334,387.52	4,894,099	510,654	2.64
	Total Labadie Steam Production Plant				*1,084,769,766.79*	*382,123,061*	*28,841,287*	

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SCHEDULE 1. ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENTS, ORIGINAL COST, CALCULATED ANNUAL DEPRECIATION ACCRUALS AND CALCULATED ACCRUED DEPRECIATION RELATED TO UTILITY PLANT AT DECEMBER 31, 2008

	Depreciable Group	Probable Retirement Year	Survivor Curve	Net Salvage, %	Original Cost at December 31, 2008	Calculated Accrued Depreciation	Calculated Annual Accrual Amount	Calculated Annual Accrual Rate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(5)
	Steam Production Plant, Cont.							
	Rush Island Steam Production Plant							
311	Structures & Improvements	09-2046	115 - R1.5 (a)	(2)	53,514,432.27	20,126,171	965,860	1.80
312	Boiler Plant Equipment	09-2046	60 - L0.5 (a)	(15)	[illegible]	[illegible]	10,431,293	2.70
314	Turbogenerator Units	09-2046	70 - L0.5 (a)	(5)	136,992,202.11	41,557,389	3,237,398	2.36
315	Accessory Electrical Equipment	09-2046	80 - S0 (a)	(3)	37,966,122.50	11,051,577	833,110	2.19
316	Miscellaneous Power Plant Equipment	09-2046	60 - O1 (a)	0	11,297,925.44	2,553,804	282,479	2.50
	Total Rush Island Steam Production Plant				*625,714,213.29*	*206,935,803*	*15,750,140*	
	Common							
311	Structures & Improvements	09-2042	115 - R1.5 (a)	(2)	1,959,205.74	354,633	50,406	2.57
312	Boiler Plant Equipment	09-2042	60 - L0.5 (a)	(15)	36,983,418.10	7,905,501	1,201,114	3.25
315	Accessory Electrical Equipment	09-2042	80 - S0 (a)	(3)	3,129,974.57	598,527	83,853	2.68
316	Miscellaneous Power Plant Equipment	09-2042	60 - O1 (a)	0	20,842.80	3,208	615	2.95
	Total Common				*42,093,441.21*	*8,861,869*	*1,335,988*	3.17
	Total Steam Production Plant				**2,926,312,417.87**	**1,084,930,881**	**95,983,107**	
	Nuclear Production Plant							
	Callaway Nuclear Production Plant							
321	Structures & Improvements	10-2044	100 - R1 (a)	(1)	908,912,210.01	331,112,823	17,684,720	1.95
322	Reactor Plant Equipment	10-2044	60 - S0 (a)	(10)	1,011,169,315.18	344,886,372	25,754,339	2.55
323	Turbogenerator Units	10-2044	60 - S0.5 (a)	(2)	509,558,175.91	173,034,827	11,601,424	2.28
324	Accessory Electrical Equipment	10-2044	80 - R2 (a)	0	211,158,283.51	81,039,230	3,953,640	1.87
325	Miscellaneous Power Plant Equipment	10-2044	60 - O3 (a)	0	171,818,762.32	37,402,552	4,956,292	2.88
	Total Nuclear Production Plant				**2,812,616,746.93**	**967,475,804**	**63,950,415**	

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SCHEDULE 1. ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENTS, ORIGINAL COST, CALCULATED ANNUAL DEPRECIATION ACCRUALS AND CALCULATED ACCRUED DEPRECIATION RELATED TO UTILITY PLANT AT DECEMBER 31, 2008

	Depreciable Group	Probable Retirement Year	Survivor Curve	Net Salvage, %	Original Cost at December 31, 2008	Calculated Accrued Depreciation	Calculated Annual Accrual Amount	Calculated Annual Accrual Rate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(5)
	Hydraulic Production Plant							
	Osage Hydraulic Production Plant							
331	Structures & Improvements	06-2047	130 - R1 (a)	(20)	4,388,344.73	2,172,985	85,957	1.96
332	Reservoirs, Dams, & Waterways	06-2047	150 - L2 (a)	(20)	26,340,018.25	16,628,238	413,415	1.57
333	Water Wheels, Turbines, & Generators	06-2047	95 - S0.5 (a)	(30)	33,927,128.71	9,153,528	966,637	2.85
334	Accessory Electrical Equipment	06-2047	65 - R0.5 (a)	(8)	6,077,560.37	1,872,635	149,061	2.45
335	Miscellaneous Power Plant Equipment	06-2047	60 - R0.5 (a)	(5)	2,257,998.67	462,903	59,397	2.63
336	Roads, Railroads, & Bridges	06-2047	40 - O2 (a)	0	77,445.00	37,202	1,988	2.57
	Total Osage Hydraulic Production Plant				*73,068,495.73*	*30,327,491*	*1,676,455*	
	Keokuk Hydraulic Production Plant							
331	Structures & Improvements	06-2055	130 - R1 (a)	(20)	5,643,620.55	1,819,559	114,767	2.03
332	Reservoirs, Dams, & Waterways	06-2055	150 - L2 (a)	(20)	14,294,537.49	6,603,215	239,546	1.68
333	Water Wheels, Turbines, & Generators	06-2055	95 - S0.5 (a)	(30)	59,286,459.34	14,426,493	1,466,369	2.47
334	Accessory Electrical Equipment	06-2055	65 - R0.5 (a)	(8)	10,757,361.83	2,241,976	251,010	2.33
335	Miscellaneous Power Plant Equipment	06-2055	60 - R0.5 (a)	(5)	2,986,736.07	599,485	68,897	2.31
336	Roads, Railroads, & Bridges	06-2055	40 - O2 (a)	0	114,926.08	34,757	3,132	2.73
	Total Keokuk Hydraulic Production Plant				*93,083,641.36*	*25,725,485*	*2,143,721*	2.30
	Taum Sauk Hydraulic Production Plant							
331	Structures & Improvements	06-2049	130 - R1 (a)	(20)	6,000,732.34	3,057,520	109,610	1.83
332	Reservoirs, Dams, & Waterways	06-2049	150 - L2 (a)	(20)	28,104,316.93	14,670,600	487,957	1.74
333	Water Wheels, Turbines, & Generators	06-2049	95 - S0.5 (a)	(30)	39,324,978.83	15,627,545	955,572	2.43
334	Accessory Electrical Equipment	06-2049	65 - R0.5 (a)	(8)	3,947,015.65	1,449,261	87,145	2.21
335	Miscellaneous Power Plant Equipment	06-2049	60 - R0.5 (a)	(5)	2,413,628.22	348,359	64,437	2.67
336	Roads, Railroads, & Bridges	06-2049	40 - O2 (a)	0	45,570.00	19,932	1,198	2.63
	Total Taum Sauk Hydraulic Production Plant				*79,836,241.97*	*35,173,217*	*1,705,919*	
	Total Hydraulic Production Plant				**245,988,379.06**	**91,226,193**	**5,526,095**	

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SCHEDULE 1. ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENTS, ORIGINAL COST, CALCULATED ANNUAL DEPRECIATION ACCRUALS AND CALCULATED ACCRUED DEPRECIATION RELATED TO UTILITY PLANT AT DECEMBER 31, 2008

	Depreciable Group	Probable Retirement Year	Survivor Curve	Net Salvage, %	Original Cost at December 31, 2008	Calculated Accrued Depreciation	Calculated Annual Accrual Amount	Calculated Annual Accrual Rate	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(5)	
	Other Production Plant								
341	Structures & Improvements		40 - R4	(2)	25,892,739.55	5,663,308	654,389	2.53	
342	Fuel Holders, Producers, & Accessories		40 - R4	(2)	24,520,525.83	5,357,859	625,273	2.55	
344	Generators		40 - R4	(2)	1,051,873,156.33	192,014,263	26,820,510	2.55	
345	Accessory Electrical Equipment		40 - R4	(2)	69,921,659.19	14,684,488	1,782,103	2.55	
346	Miscellaneous Power Plant Equipment		25 - R1	(2)	6,113,533.07	1,155,771	246,694	4.04	
	Total Other Production Plant				**1,178,321,613.97**	**218,875,689**	**30,128,969**		
	Total Production Plant				**7,163,239,157.83**	**2,362,508,567**	**195,588,586**		
	Transmission Plant								
352	Structures & Improvements		60 - R2	0	6,271,634.48	2,261,969	104,736	1.67	
353	Station Equipment		55 - R2.5	0	228,351,122.42	56,004,397	4,155,990	1.82	
354	Towers & Fixtures		70 - R4	(14)	70,394,133.29	36,355,774	1,147,565	1.63	
355	Poles & Fixtures		53 - R4	(90)	138,655,624.50	68,508,484	4,979,080	3.59	
356	Overhead Conductor & Devices		55 - R4	(20)	145,108,057.59	65,355,348	3,164,552	2.18	
359	Roads & Trails		50 - SQ	0	71,789.00	68,343	785	2.00	(b)
	Total Transmission Plant				**588,852,361.28**	**228,554,315**	**13,552,708**		

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SCHEDULE 1. ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENTS, ORIGINAL COST, CALCULATED ANNUAL DEPRECIATION ACCRUALS AND CALCULATED ACCRUED DEPRECIATION RELATED TO UTILITY PLANT AT DECEMBER 31, 2008

	Depreciable Group	Probable Retirement Year	Survivor Curve	Net Salvage, %	Original Cost at December 31, 2008	Calculated Accrued Depreciation	Calculated Annual Accrual Amount	Calculated Annual Accrual Rate	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(5)	
	Distribution Plant								
361	Structures & Improvements		60 - R2.5	0	15,366,770.89	5,242,947	256,625	1.67	
362	Station Equipment		60 - R2.5	(10)	598,830,057.18	185,375,225	11,000,508	1.84	
364	Poles & Fixtures		45 - R2.5	(150)	767,060,218.71	579,921,871	42,568,665	5.55	
365	Overhead Conductors & Devices		49 - R1	(53)	856,325,269.99	288,231,904	26,727,624	3.12	
366	Underground Conduit		70 - R3	(40)	223,547,546.26	60,444,504	4,475,422	2.00	
367	Underground Conductor & Devices		54 - R2	(25)	527,667,832.09	155,528,645	12,202,319	2.31	
368	Line Transformers		42 - R2.5	0	401,240,245.38	134,595,997	9,546,050	2.38	
369.1	Overhead Services		40 - R2.5	(215)	153,326,209.14	166,889,153	12,061,060	7.87	
369.2	Underground Services		55 - R3	(80)	134,153,520.78	71,846,551	4,394,352	3.28	
370	Meters		26 - L2.5	0	106,165,931.83	41,486,115	4,085,925	3.85	
371	Installations On Customers' Premises		20 - O1	0	164,611.12	128,468	5,160	3.13	
373	Street Lighting & Signal Systems		36 - L1	(43)	109,202,914.97	45,180,151	4,341,253	3.98	
	Total Distribution Plant				**3,893,051,128.34**	**1,734,871,531**	**131,664,963**		
	General Plant								
390	Structures & Improvements		45 - R1.5	(10)	189,663,143.96	58,821,818	4,629,015	2.44	
391	Office Furniture & Equipment		15 - SQ	0	55,554,782.70	31,777,968	2,867,691	6.67	(b)
391.1	Mainframe Computers		5 - SQ	0	0.08	-	-	20.00	(b)
391.2	Personal Computers		5 - SQ	0	2,077,726.33	1,336,122	305,467	20.00	(b)
392	Transportation Equipment		11 - R1	9	94,534,723.13	32,333,048	7,748,088	8.20	
393	Stores Equipment		20 - SQ	0	2,924,509.24	1,510,311	115,235	5.00	(b)
394	Tools, Shop, & Garage Equipment		20 - SQ	0	13,425,315.66	6,522,905	603,552	5.00	(b)
395	Laboratory Equipment		20 - SQ	0	7,788,726.05	4,141,668	331,376	5.00	(b)
396	Power Operated Equipment		15 - L2	15	8,575,689.75	3,100,545	485,790	5.66	
397	Communications Equipment		15 - SQ	0	135,601,034.22	104,258,577	5,081,038	6.67	(b)
398	Miscellaneous Equipment		20 - SQ	0	780,240.51	295,480	37,774	5.00	(b)
	Total General Plant				**510,925,891.63**	**244,098,442**	**22,205,026**		
TOTAL DEPRECIABLE ELECTRIC PLANT					**$ 12,156,068,539.08**	**$ 4,570,032,855**	**$ 363,011,283**		

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SCHEDULE 1. ESTIMATED SURVIVOR CURVES, NET SALVAGE PERCENTS, ORIGINAL COST, CALCULATED ANNUAL DEPRECIATION ACCRUALS AND CALCULATED ACCRUED DEPRECIATION RELATED TO UTILITY PLANT AT DECEMBER 31, 2008

	Depreciable Group	Probable Retirement Year	Survivor Curve	Net Salvage, %	Original Cost at December 31, 2008	Calculated Accrued Depreciation	Calculated Annual Accrual Amount	Calculated Annual Accrual Rate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(5)
	Accounts Not Studied							
302	Franchises and Consents				19,121,866.00			
303	Misc. Intangible Plant				23,756,052.00			
310	Land and Land Rights				8,367,585.00			
317	ARO - Steam Production				26,100,948.00			
320	Land & Land Rights				6,184,104.00			
330	Land and Land Rights				17,751,468.00			
340	Land & Land Rights				6,682,147.00			
350	Land & Land Rights				38,077,323.00			
360	Land & Land Rights				27,180,056.00			
373.1	ARO Distribution Plant				337,836.00			
389	Land & Land Rights				11,540,745.00			
399.1	ARO General Plant				231,782.00			
	Total Accounts Not Studied				**166,210,046.00**			
	TOTAL ELECTRIC PLANT				**$ 12,341,400,451.08**			

(a) Curve shown is interim survovor curve.
(b) Depreciation rate shown applies only to vintages that are not fully accrued.

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SCHEDULE 2. COMPARISON OF CALCULATED ACCRUED DEPRECIATION AND BOOK DEPRECIATION RESERVE AT DECEMBER 31, 2008 AND CALCULATION OF ANNUAL AMORTIZATION OF THE RESERVE VARIANCE BASED ON A COMPOSITE REMAINING LIFE PERIOD

	Depreciable Group	Original Cost at December 31, 2008	Book Reserve	Calculated Accrued Depreciation	Reserve Variance	Remaining Life	Annual Amortization True Up
	(1)	(2)	(3)	(4)	(5) = (4) - (3)	(6)	(7) = (5) / (6)
Depreciable Plant							
	Steam Production Plant						
	Meramec Steam Production Plant						
311	Structures & Improvements	$ 39,820,842.78	$ 27,298,716	$ 22,724,769	$ (4,573,947)	12.9	$ (355,120)
312	Boiler Plant Equipment	415,492,860.03	120,665,532	201,106,640	80,441,108	12.4	6,471,529
314	Turbogenerator Units	83,427,432.21	53,936,048	44,360,471	(9,575,577)	12.5	(766,660)
315	Accessory Electrical Equipment	43,146,198.88	22,694,796	20,572,681	(2,122,115)	12.7	(166,702)
316	Miscellaneous Power Plant Equipment	19,153,270.10	5,178,962	6,402,494	1,223,532	12.3	99,393
	Total Meramec Steam Production Plant	*601,040,604.00*	*229,774,054*	*295,167,055*	*65,393,001*		*5,282,441*
	Sioux Steam Production Plant						
311	Structures & Improvements	36,425,326.84	14,911,056	11,764,291	(3,146,765)	24.1	(130,734)
312	Boiler Plant Equipment	392,050,515.53	126,135,289	136,533,737	10,398,448	22.0	472,872
314	Turbogenerator Units	99,339,660.18	33,708,197	29,735,463	(3,972,734)	22.7	(175,165)
315	Accessory Electrical Equipment	34,536,592.32	12,920,664	11,081,837	(1,838,827)	23.3	(78,818)
316	Miscellaneous Power Plant Equipment	10,342,297.71	2,901,958	2,727,765	(174,193)	21.9	(7,950)
	Total Sioux Steam Production Plant	*572,694,392.58*	*190,577,164*	*191,843,093*	*1,265,929*		*80,205*
	Labadie Steam Production Plant						
311	Structures & Improvements	64,976,425.55	37,436,347	24,538,479	(12,897,868)	32.2	(400,555)
312	Boiler Plant Equipment	594,753,745.39	311,792,182	231,961,342	(79,830,840)	27.3	(2,925,278)
312.03	Boiler Plant Equipment - Aluminum Coal Cars	116,271,399.78	72,203,419	35,659,912	(36,543,507)	14.6	(2,504,695)
314	Turbogenerator Units	208,376,677.30	72,315,621	56,828,019	(15,487,602)	29.4	(527,687)
315	Accessory Electrical Equipment	81,057,131.25	41,876,752	28,241,210	(13,635,542)	30.3	(449,721)
316	Miscellaneous Power Plant Equipment	19,334,387.52	8,615,370	4,894,099	(3,721,271)	28.3	(131,587)
	Total Labadie Steam Production Plant	*1,084,769,766.79*	*544,239,690*	*382,123,061*	*(162,116,629)*		*(6,939,523)*

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SCHEDULE 2. COMPARISON OF CALCULATED ACCRUED DEPRECIATION AND BOOK DEPRECIATION RESERVE AT DECEMBER 31, 2008 AND CALCULATION OF ANNUAL AMORTIZATION OF THE RESERVE VARIANCE BASED ON A COMPOSITE REMAINING LIFE PERIOD

	Depreciable Group	Original Cost at December 31, 2008	Book Reserve	Calculated Accrued Depreciation	Reserve Variance	Remaining Life	Annual Amortization True Up
	(1)	(2)	(3)	(4)	(5) = (4) - (3)	(6)	(7) = (5) / (6)
	Steam Production Plant, Cont.						
	Rush Island Steam Production Plant						
311	Structures & Improvements	53,514,432.27	34,602,766	20,126,171	(14,476,595)	35.7	(405,734)
312	Boiler Plant Equipment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	(2,403,308)
314	Turbogenerator Units	136,992,202.11	57,396,310	41,557,389	(15,838,921)	31.6	(501,390)
315	Accessory Electrical Equipment	37,966,122.50	17,479,208	11,051,577	(6,427,631)	33.7	(190,901)
316	Miscellaneous Power Plant Equipment	11,297,925.44	5,014,763	2,553,804	(2,460,959)	31.0	(79,514)
	Total Rush Island Steam Production Plant	*625,714,213.29*	*318,070,926*	*206,935,803*	*(111,135,123)*		*(3,580,848)*
	Common						
311	Structures & Improvements	1,959,205.74	332,348	354,633	22,285	32.6	683
312	Boiler Plant Equipment	36,983,418.10	7,388,179	7,905,501	517,322	28.8	17,944
315	Accessory Electrical Equipment	3,129,974.57	525,483	598,527	73,044	31.3	2,333
316	Miscellaneous Power Plant Equipment	20,842.80	3,979	3,208	(771)	28.7	(27)
	Total Common	*42,093,441.21*	*8,249,989*	*8,861,869*	*611,880*		*20,933*
	Total Steam Production Plant	**2,926,312,417.87**	**1,290,911,823**	**1,084,930,881**	**(205,980,942)**		**(5,136,791)**
	Nuclear Production Plant						
	Callaway Nuclear Production Plant						
321	Structures & Improvements	908,912,210.01	499,975,655	331,112,823	(168,862,832)	33.2	(5,087,762)
322	Reactor Plant Equipment	1,011,169,315.18	339,507,647	344,886,372	5,378,725	29.8	180,494
323	Turbogenerator Units	509,558,175.91	207,370,797	173,034,827	(34,335,970)	29.9	(1,148,744)
324	Accessory Electrical Equipment	211,158,283.51	122,373,296	81,039,230	(41,334,066)	32.9	(1,255,973)
325	Miscellaneous Power Plant Equipment	171,818,762.32	34,394,723	37,402,552	3,007,829	27.1	110,908
	Total Nuclear Production Plant	**2,812,616,746.93**	**1,203,622,118**	**967,475,804**	**(236,146,314)**		**(7,201,077)**

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Electric Division

SCHEDULE 2. COMPARISON OF CALCULATED ACCRUED DEPRECIATION AND BOOK DEPRECIATION RESERVE AT DECEMBER 31, 2008 AND CALCULATION OF ANNUAL AMORTIZATION OF THE RESERVE VARIANCE BASED ON A COMPOSITE REMAINING LIFE PERIOD

	Depreciable Group	Original Cost at December 31, 2008	Book Reserve	Calculated Accrued Depreciation	Reserve Variance	Remaining Life	Annual Amortization True Up
	(1)	(2)	(3)	(4)	(5) = (4) - (3)	(6)	(7) = (5) / (6)
	Hydraulic Production Plant						
	Osage Hydraulic Production Plant						
331	Structures & Improvements	4,388,344.73	1,281,529	2,172,985	891,456	36.0	24,776
332	Reservoirs, Dams, & Waterways	26,340,018.25	14,092,445	16,628,238	2,535,793	36.2	69,992
333	Water Wheels, Turbines, & Generators	33,927,128.71	6,731,356	9,153,528	2,422,172	36.2	66,985
334	Accessory Electrical Equipment	6,077,560.37	1,768,215	1,872,635	104,420	31.5	3,318
335	Miscellaneous Power Plant Equipment	2,257,998.67	440,953	462,903	21,950	32.1	683
336	Roads, Railroads, & Bridges	77,445.00	119,158	37,202	(81,956)	20.2	(4,049)
	Total Osage Hydraulic Production Plant	*73,068,495.73*	*24,433,657*	*30,327,491*	*5,893,834*		*161,705*
	Keokuk Hydraulic Production Plant						
331	Structures & Improvements	5,643,620.55	1,491,331	1,819,559	328,228	43.2	7,605
332	Reservoirs, Dams, & Waterways	14,294,537.49	6,039,483	6,603,215	563,732	44.0	12,800
333	Water Wheels, Turbines, & Generators	59,286,459.34	8,113,053	14,426,493	6,313,440	42.7	147,787
334	Accessory Electrical Equipment	10,757,361.83	1,212,775	2,241,976	1,029,201	37.4	27,556
335	Miscellaneous Power Plant Equipment	2,986,736.07	745,634	599,485	(146,149)	36.8	(3,969)
336	Roads, Railroads, & Bridges	114,926.08	64,476	34,757	(29,719)	25.6	(1,161)
	Total Keokuk Hydraulic Production Plant	*93,083,641.36*	*17,666,752*	*25,725,485*	*8,058,733*		*190,617*
	Taum Sauk Hydraulic Production Plant						
331	Structures & Improvements	6,000,732.34	1,217,598	3,057,520	1,839,922	37.8	48,675
332	Reservoirs, Dams, & Waterways	28,104,316.93	7,598,016	14,670,600	7,072,584	39.1	181,116
333	Water Wheels, Turbines, & Generators	39,324,978.83	9,289,242	15,627,545	6,338,303	37.2	170,614
334	Accessory Electrical Equipment	3,947,015.65	1,588,236	1,449,261	(138,975)	32.3	(4,304)
335	Miscellaneous Power Plant Equipment	2,413,628.22	523,926	348,359	(175,567)	33.9	(5,176)
336	Roads, Railroads, & Bridges	45,570.00	58,773	19,932	(38,841)	21.4	(1,815)
	Total Taum Sauk Hydraulic Production Plant	*79,836,241.97*	*20,275,791*	*35,173,217*	*14,897,426*		*389,110*
	Total Hydraulic Production Plant	**245,988,379.06**	**62,376,200**	**91,226,193**	**28,849,993**		**741,433**

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SCHEDULE 2. COMPARISON OF CALCULATED ACCRUED DEPRECIATION AND BOOK DEPRECIATION RESERVE AT DECEMBER 31, 2008 AND CALCULATION OF ANNUAL AMORTIZATION OF THE RESERVE VARIANCE BASED ON A COMPOSITE REMAINING LIFE PERIOD

	Depreciable Group	Original Cost at December 31, 2008	Book Reserve	Calculated Accrued Depreciation	Reserve Variance	Remaining Life	Annual Amortization True Up
	(1)	(2)	(3)	(4)	(5) = (4) - (3)	(6)	(7) = (5) / (6)
	Other Production Plant						
341	Structures & Improvements	25,892,739.55	7,436,994	5,663,308	(1,773,686)	31.7	(55,952)
342	Fuel Holders, Producers, & Accessories	24,520,525.83	5,486,183	5,357,859	(128,324)	31.4	(4,083)
344	Generators	1,051,873,156.33	433,024,882	192,014,263	(241,010,619)	32.8	(7,338,935)
345	Accessory Electrical Equipment	69,921,659.19	13,833,369	14,684,488	851,119	31.8	26,782
346	Miscellaneous Power Plant Equipment	6,113,533.07	1,433,017	1,155,771	(277,246)	20.6	(13,465)
	Total Other Production Plant	**1,178,321,613.97**	**461,214,446**	**218,875,689**	**(242,338,757)**		**(7,385,653)**
	Total Production Plant	**7,163,239,157.83**	**3,018,124,586**	**2,362,508,567**	**(655,616,019)**		**(18,982,090)**
	Transmission Plant						
352	Structures & Improvements	6,271,634.48	2,327,929	2,261,969	(65,960)	38.3	(1,723)
353	Station Equipment	228,351,122.42	62,940,658	56,004,397	(6,936,261)	41.5	(167,260)
354	Towers & Fixtures	70,394,133.29	44,155,918	36,355,774	(7,800,144)	38.3	(203,925)
355	Poles & Fixtures	138,655,624.50	51,679,866	68,508,484	16,828,618	39.2	429,850
356	Overhead Conductor & Devices	145,108,057.59	49,972,709	65,355,348	15,382,639	34.4	447,560
359	Roads & Trails	71,789.00	80,572	68,343	(12,229)	4.4	(2,786)
	Total Transmission Plant	**588,852,361.28**	**211,157,654**	**228,554,315**	**17,396,661**		**501,716**

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SCHEDULE 2. COMPARISON OF CALCULATED ACCRUED DEPRECIATION AND BOOK DEPRECIATION RESERVE AT DECEMBER 31, 2008 AND CALCULATION OF ANNUAL AMORTIZATION OF THE RESERVE VARIANCE BASED ON A COMPOSITE REMAINING LIFE PERIOD

	Depreciable Group	Original Cost at December 31, 2008	Book Reserve	Calculated Accrued Depreciation	Reserve Variance	Remaining Life	Annual Amortization True Up
	(1)	(2)	(3)	(4)	(5) = (4) - (3)	(6)	(7) = (5) / (6)
	Distribution Plant						
361	Structures & Improvements	15,366,770.89	5,180,137	5,242,947	62,810	39.5	1,592
362	Station Equipment	598,830,057.18	189,119,546	185,375,225	(3,744,321)	43.0	(87,017)
364	Poles & Fixtures	767,060,218.71	597,821,521	579,921,871	(17,899,650)	31.4	(569,508)
365	Overhead Conductors & Devices	856,325,269.99	273,417,973	288,231,904	14,813,931	38.2	387,394
366	Underground Conduit	223,547,546.26	68,816,867	60,444,504	(8,372,363)	56.4	(148,394)
367	Underground Conductor & Devices	527,667,832.09	153,703,427	155,528,645	1,825,218	41.3	44,183
368	Line Transformers	401,240,245.38	121,966,245	134,595,997	12,629,752	27.9	452,193
369.1	Overhead Services	153,326,209.14	171,826,238	166,889,153	(4,937,085)	26.2	(188,366)
369.2	Underground Services	134,153,520.78	85,139,432	71,846,551	(13,292,881)	38.6	(344,375)
370	Meters	106,165,931.83	36,289,818	41,486,115	5,196,297	15.8	328,256
371	Installations On Customers' Premises	164,611.12	138,509	128,468	(10,041)	7.0	(1,434)
373	Street Lighting & Signal Systems	109,202,914.97	54,093,400	45,180,151	(8,913,249)	25.6	(348,719)
	Total Distribution Plant	**3,893,051,128.34**	**1,757,513,114**	**1,734,871,531**	**(22,641,583)**		**(474,195)**
	General Plant						
390	Structures & Improvements	189,663,143.96	54,763,375	58,821,818	4,058,443	32.4	125,415
391	Office Furniture & Equipment	55,554,782.70	34,711,674	31,777,968	(2,933,706)	8.3	(353,885)
391.1	Mainframe Computers	0.08	332,101	-	(332,101)	0.0	-
391.2	Personal Computers	2,077,726.33	1,503,581	1,336,122	(167,459)	2.4	(68,913)
392	Transportation Equipment	94,534,723.13	35,234,174	32,333,048	(2,901,126)	6.9	(418,633)
393	Stores Equipment	2,924,509.24	1,529,169	1,510,311	(18,858)	12.3	(1,537)
394	Tools, Shop, & Garage Equipment	13,425,315.66	6,526,168	6,522,905	(3,263)	11.4	(285)
395	Laboratory Equipment	7,788,726.05	3,994,241	4,141,668	147,427	11.0	13,390
396	Power Operated Equipment	8,575,689.75	2,880,490	3,100,545	220,055	8.6	25,528
397	Communications Equipment	135,601,034.22	107,798,086	104,258,577	(3,539,509)	6.2	(573,664)
398	Miscellaneous Equipment	780,240.51	282,343	295,480	13,137	12.8	1,024
	Total General Plant	**510,925,891.63**	**249,555,401**	**244,098,442**	**(5,456,959)**		**(1,251,559)**
TOTAL DEPRECIABLE ELECTRIC PLANT		**$ 12,156,068,539.08**	**$ 5,236,350,754**	**$ 4,570,032,855**	**$ (666,317,899)**		**$ (20,206,128)**

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SCHEDULE 2. COMPARISON OF CALCULATED ACCRUED DEPRECIATION AND BOOK DEPRECIATION RESERVE AT DECEMBER 31, 2008 AND CALCULATION OF ANNUAL AMORTIZATION OF THE RESERVE VARIANCE BASED ON A COMPOSITE REMAINING LIFE PERIOD

	Depreciable Group	Original Cost at December 31, 2008	Book Reserve	Calculated Accrued Depreciation	Reserve Variance	Remaining Life	Annual Amortization True Up
	(1)	(2)	(3)	(4)	(5) = (4) - (3)	(6)	(7) = (5) / (6)
	Accounts Not Studied						
302	Franchises and Consents	19,121,866.00	1,030,229				
303	Misc. Intangible Plant	23,756,052.00	16,499,117				
310	Land and Land Rights	8,367,585.00	-				
311	Structures & Improvements - Venice	-	(4,488,088)				
312	Boiler Plant Equipment - Venice	-	1,909,383				
314	Turbogenerator Units - Venice	-	551,400				
316	Miscellaneous Power Plant Equipment - Venice	-	(116,122)				
317	ARO - Steam Production	26,100,948.00	7,602,214				
320	Land & Land Rights	6,184,104.00	-				
330	Land and Land Rights	17,751,468.00	-				
340	Land & Land Rights	6,682,147.00	(51,341)				
350	Land & Land Rights	38,077,323.00	1,013,323				
360	Land & Land Rights	27,180,056.00	358,588				
373.1	ARO Distribution Plant	337,836.00	252,427				
389	Land & Land Rights	11,540,745.00	-				
399.1	ARO General Plant	231,782.00	147,240				
	Total Accounts Not Studied	**134,086,409.00**	**24,708,370**				
	TOTAL ELECTRIC PLANT	**$ 12,341,400,451.08**	**$ 5,261,059,124**				

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Electric Division

SCHEDULE 3. CALCULATION OF TOTAL ANNUAL DEPRECIATION INCLUDING AMORTIZATIONS OF THE RESERVE VARIANCE AT DECEMBER 31, 2008

	Depreciable Group	Original Cost at December 31, 2008	Annual Accrual Amount	Reserve Variance Amortization	Total Annual Depreciation	Total Annual Depreciation Rate
	(1)	(2)	(3)	(4)	(5)	(6) = (5) / (2)
	Depreciable Plant					
	Steam Production Plant					
	Meramec Steam Production Plant					
311	Structures & Improvements	$ 39,820,842.78	$ 1,389,205	$ (355,120)	$ 1,034,085	2.60
312	Boiler Plant Equipment	415,492,860.03	22,255,707	6,471,529	28,727,236	6.91
314	Turbogenerator Units	83,427,432.21	3,463,186	(766,660)	2,696,526	3.23
315	Accessory Electrical Equipment	43,146,198.88	1,874,969	(166,702)	1,708,267	3.96
316	Miscellaneous Power Plant Equipment	19,153,270.10	1,035,728	99,393	1,135,121	5.93
	Total Meramec Steam Production Plant	*601,040,604.00*	*30,018,795*	*5,282,441*	*35,301,236*	*5.87*
	Sioux Steam Production Plant					
311	Structures & Improvements	36,425,326.84	1,054,950	(130,734)	924,216	2.54
312	Boiler Plant Equipment	392,050,515.53	14,296,957	472,872	14,769,829	3.77
314	Turbogenerator Units	99,339,660.18	3,287,927	(175,165)	3,112,762	3.13
315	Accessory Electrical Equipment	34,536,592.32	1,049,565	(78,818)	970,747	2.81
316	Miscellaneous Power Plant Equipment	10,342,297.71	347,498	(7,950)	339,548	3.28
	Total Sioux Steam Production Plant	*572,694,392.58*	*20,036,897*	*80,205*	*20,117,102*	*3.51*
	Labadie Steam Production Plant					
311	Structures & Improvements	64,976,425.55	1,296,133	(400,555)	895,578	1.38
312	Boiler Plant Equipment	594,753,745.39	16,561,293	(2,925,278)	13,636,015	2.29
312.03	Boiler Plant Equipment - Aluminum Coal Cars	116,271,399.78	3,133,514	(2,504,695)	628,819	0.54
314	Turbogenerator Units	208,376,677.30	5,517,616	(527,687)	4,989,929	2.39
315	Accessory Electrical Equipment	81,057,131.25	1,822,077	(449,721)	1,372,356	1.69
316	Miscellaneous Power Plant Equipment	19,334,387.52	510,654	(131,587)	379,067	1.96
	Total Labadie Steam Production Plant	*1,084,769,766.79*	*28,841,287*	*(6,939,523)*	*21,901,764*	*2.02*

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SCHEDULE 3. CALCULATION OF TOTAL ANNUAL DEPRECIATION INCLUDING AMORTIZATIONS OF THE RESERVE VARIANCE AT DECEMBER 31, 2008

	Depreciable Group	Original Cost at December 31, 2008	Annual Accrual Amount	Reserve Variance Amortization	Total Annual Depreciation	Total Annual Depreciation Rate
	(1)	(2)	(3)	(4)	(5)	(6) = (5) / (2)
	Steam Production Plant, Cont.					
	Rush Island Steam Production Plant					
311	Structures & Improvements	53,514,432.27	965,860	(405,734)	560,126	1.05
312	Boiler Plant Equipment	385,943,530.97	10,431,293	(2,403,308)	8,027,985	2.08
314	Turbogenerator Units	136,992,202.11	3,237,398	(501,390)	2,736,008	2.00
315	Accessory Electrical Equipment	37,966,122.50	833,110	(190,901)	642,209	1.69
316	Miscellaneous Power Plant Equipment	11,297,925.44	282,479	(79,514)	202,965	1.80
	Total Rush Island Steam Production Plant	*625,714,213.29*	*15,750,140*	*(3,580,848)*	*12,169,292*	*1.94*
	Common					
311	Structures & Improvements	1,959,205.74	50,406	683	51,089	2.61
312	Boiler Plant Equipment	36,983,418.10	1,201,114	17,944	1,219,058	3.30
315	Accessory Electrical Equipment	3,129,974.57	83,853	2,333	86,186	2.75
316	Miscellaneous Power Plant Equipment	20,842.80	615	(27)	588	2.82
	Total Common	*42,093,441.21*	*1,335,988*	*20,933*	*1,356,921*	*3.22*
	Total Steam Production Plant	**2,926,312,417.87**	**95,983,107**	**(5,136,791)**	**90,846,316**	**3.10**
	Nuclear Production Plant					
	Callaway Nuclear Production Plant					
321	Structures & Improvements	908,912,210.01	17,684,720	(5,087,762)	12,596,958	1.39
322	Reactor Plant Equipment	1,011,169,315.18	25,754,339	180,494	25,934,833	2.56
323	Turbogenerator Units	509,558,175.91	11,601,424	(1,148,744)	10,452,680	2.05
324	Accessory Electrical Equipment	211,158,283.51	3,953,640	(1,255,973)	2,697,667	1.28
325	Miscellaneous Power Plant Equipment	171,818,762.32	4,956,292	110,908	5,067,200	2.95
	Total Nuclear Production Plant	**2,812,616,746.93**	**63,950,415**	**(7,201,077)**	**56,749,338**	**2.02**

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Electric Division

SCHEDULE 3. CALCULATION OF TOTAL ANNUAL DEPRECIATION INCLUDING AMORTIZATIONS OF THE RESERVE VARIANCE AT DECEMBER 31, 2008

	Depreciable Group	Original Cost at December 31, 2008	Annual Accrual Amount	Reserve Variance Amortization	Total Annual Depreciation	Total Annual Depreciation Rate
	(1)	(2)	(3)	(4)	(5)	(6) = (5) / (2)
	Hydraulic Production Plant					
	Osage Hydraulic Production Plant					
331	Structures & Improvements	4,388,344.73	85,957	24,776	110,733	2.52
332	Reservoirs, Dams, & Waterways	26,340,018.25	413,415	69,992	483,407	1.84
333	Water Wheels, Turbines, & Generators	33,927,128.71	966,637	66,985	1,033,622	3.05
334	Accessory Electrical Equipment	6,077,560.37	149,061	3,318	152,379	2.51
335	Miscellaneous Power Plant Equipment	2,257,998.67	59,397	683	60,080	2.66
336	Roads, Railroads, & Bridges	77,445.00	1,988	(4,049)	(2,061)	-2.66
	Total Osage Hydraulic Production Plant	*73,068,495.73*	*1,676,455*	*161,705*	*1,838,160*	*2.52*
	Keokuk Hydraulic Production Plant					
331	Structures & Improvements	5,643,620.55	114,767	7,605	122,372	2.17
332	Reservoirs, Dams, & Waterways	14,294,537.49	239,546	12,800	252,346	1.77
333	Water Wheels, Turbines, & Generators	59,286,459.34	1,466,369	147,787	1,614,156	2.72
334	Accessory Electrical Equipment	10,757,361.83	251,010	27,556	278,566	2.59
335	Miscellaneous Power Plant Equipment	2,986,736.07	68,897	(3,969)	64,928	2.17
336	Roads, Railroads, & Bridges	114,926.08	3,132	(1,161)	1,971	1.72
	Total Keokuk Hydraulic Production Plant	*93,083,641.36*	*2,143,721*	*190,617*	*2,334,338*	*2.51*
	Taum Sauk Hydraulic Production Plant					
331	Structures & Improvements	6,000,732.34	109,610	48,675	158,285	2.64
332	Reservoirs, Dams, & Waterways	28,104,316.93	487,957	181,116	669,073	2.38
333	Water Wheels, Turbines, & Generators	39,324,978.83	955,572	170,614	1,126,186	2.86
334	Accessory Electrical Equipment	3,947,015.65	87,145	(4,304)	82,841	2.10
335	Miscellaneous Power Plant Equipment	2,413,628.22	64,437	(5,176)	59,261	2.46
336	Roads, Railroads, & Bridges	45,570.00	1,198	(1,815)	(617)	-1.35
	Total Taum Sauk Hydraulic Production Plant	*79,836,241.97*	*1,705,919*	*389,110*	*2,095,029*	*2.62*
	Total Hydraulic Production Plant	**245,988,379.06**	**5,526,095**	**741,433**	**6,267,528**	**2.55**

AmerenUE
Electric Division

SCHEDULE 3. CALCULATION OF TOTAL ANNUAL DEPRECIATION INCLUDING AMORTIZATIONS OF THE RESERVE VARIANCE AT DECEMBER 31, 2008

	Depreciable Group	Original Cost at December 31, 2008	Annual Accrual Amount	Reserve Variance Amortization	Total Annual Depreciation	Total Annual Depreciation Rate
	(1)	(2)	(3)	(4)	(5)	(6) = (5) / (2)
	Other Production Plant					
341	Structures & Improvements	25,892,739.55	654,389	(55,952)	598,437	2.31
342	Fuel Holders, Producers, & Accessories	24,520,525.83	625,273	(4,083)	621,190	2.53
344	Generators	1,051,873,156.33	26,820,510	(7,338,935)	19,481,575	1.85
345	Accessory Electrical Equipment	69,921,659.19	1,782,103	26,762	1,808,865	2.59
346	Miscellaneous Power Plant Equipment	6,113,533.07	246,694	(13,465)	233,229	3.81
	Total Other Production Plant	**1,178,321,613.97**	**30,128,969**	**(7,385,653)**	**22,743,316**	**1.93**
	Total Production Plant	**7,163,239,157.83**	**195,588,586**	**(18,982,090)**	**176,606,496**	**2.47**
	Transmission Plant					
352	Structures & Improvements	6,271,634.48	104,736	(1,723)	103,013	1.64
353	Station Equipment	228,351,122.42	4,155,990	(167,260)	3,988,730	1.75
354	Towers & Fixtures	70,394,133.29	1,147,565	(203,925)	943,640	1.34
355	Poles & Fixtures	138,655,624.50	4,979,080	429,850	5,408,930	3.90
356	Overhead Conductor & Devices	145,108,057.59	3,164,552	447,560	3,612,112	2.49
359	Roads & Trails	71,789.00	785	(2,786)	(2,001)	-2.79
	Total Transmission Plant	**588,852,361.28**	**13,552,708**	**501,716**	**14,054,424**	**2.39**

AmerenUE
Electric Division

SCHEDULE 3. CALCULATION OF TOTAL ANNUAL DEPRECIATION INCLUDING AMORTIZATIONS OF THE RESERVE VARIANCE AT DECEMBER 31, 2008

	Depreciable Group	Original Cost at December 31, 2008	Annual Accrual Amount	Reserve Variance Amortization	Total Annual Depreciation	Total Annual Depreciation Rate
	(1)	(2)	(3)	(4)	(5)	(6) = (5) / (2)
	Distribution Plant					
361	Structures & Improvements	15,366,770.89	256,625	1,592	258,217	1.68
362	Station Equipment	598,830,057.18	11,000,508	(87,017)	10,913,491	1.82
364	Poles & Fixtures	767,060,218.71	42,568,665	(569,508)	41,999,157	5.48
365	Overhead Conductors & Devices	856,325,269.99	26,727,624	387,394	27,115,018	3.17
366	Underground Conduit	223,547,546.26	4,475,422	(148,394)	4,327,028	1.94
367	Underground Conductor & Devices	527,667,832.09	12,202,319	44,183	12,246,502	2.32
368	Line Transformers	401,240,245.38	9,546,050	452,193	9,998,243	2.49
369.1	Overhead Services	153,326,209.14	12,061,060	(188,366)	11,872,694	7.74
369.2	Underground Services	134,153,520.78	4,394,352	(344,375)	4,049,977	3.02
370	Meters	106,165,931.83	4,085,925	328,256	4,414,181	4.16
371	Installations On Customers' Premises	164,611.12	5,160	(1,434)	3,726	2.26
373	Street Lighting & Signal Systems	109,202,914.97	4,341,253	(348,719)	3,992,534	3.66
	Total Distribution Plant	**3,893,051,128.34**	**131,664,963**	**(474,195)**	**131,190,768**	**3.37**
	General Plant					
390	Structures & Improvements	189,663,143.96	4,629,015	125,415	4,754,430	2.51
391	Office Furniture & Equipment	55,554,782.70	2,867,691	(353,885)	2,513,806	4.52
391.1	Mainframe Computers	0.08	-	-	-	-
391.2	Personal Computers	2,077,726.33	305,467	(68,913)	236,554	11.39
392	Transportation Equipment	94,534,723.13	7,748,088	(418,633)	7,329,455	7.75
393	Stores Equipment	2,924,509.24	115,235	(1,537)	113,698	3.89
394	Tools, Shop, & Garage Equipment	13,425,315.66	603,552	(285)	603,267	4.49
395	Laboratory Equipment	7,788,726.05	331,376	13,390	344,766	4.43
396	Power Operated Equipment	8,575,689.75	485,790	25,528	511,318	5.96
397	Communications Equipment	135,601,034.22	5,081,038	(573,664)	4,507,374	3.32
398	Miscellaneous Equipment	780,240.51	37,774	1,024	38,798	4.97
	Total General Plant	**510,925,891.63**	**22,205,026**	**(1,251,559)**	**20,953,467**	**4.10**
	TOTAL DEPRECIABLE ELECTRIC PLANT	**$ 12,156,068,539.08**	**$ 363,011,283**	**$ (20,206,128)**	**$ 342,805,155**	**2.82**

AmerenUE
Electric Division

SCHEDULE 3. CALCULATION OF TOTAL ANNUAL DEPRECIATION INCLUDING AMORTIZATIONS OF THE RESERVE VARIANCE AT DECEMBER 31, 2008

	Depreciable Group	Original Cost at December 31, 2008	Annual Accrual Amount	Reserve Variance Amortization	Total Annual Depreciation	Total Annual Depreciation Rate
	(1)	(2)	(3)	(4)	(5)	(6) = (5) / (2)
	Accounts Not Studied					
302	Franchises and Consents	19,121,866.00				
303	Misc. Intangible Plant	23,756,052.00				
310	Land and Land Rights	8,367,585.00				
317	ARO - Steam Production	26,100,948.00				
320	Land & Land Rights	6,184,104.00				
330	Land and Land Rights	17,751,468.00				
340	Land & Land Rights	6,682,147.00				
350	Land & Land Rights	38,077,323.00				
360	Land & Land Rights	27,180,056.00				
373.1	ARO Distribution Plant	337,836.00				
389	Land & Land Rights	11,540,745.00				
399.1	ARO General Plant	231,782.00				
	Total Accounts Not Studied	185,331,912.00				
	TOTAL ELECTRIC PLANT	$ 12,341,400,451.08				

AmerenUE
Comparison of AmerenUE, Staff and MIEC Net Salvage Estimates with Actual Experienced Average Net Salvage Percents

	Account (1)	AmerenUE Net Salvage Estimate (2)	Revised Staff Net Salvage Estimate (3)	MIEC Implied Net Salvage Estimate (4)	Actual 48 Year Average Net Salvage Percent (5)	Actual 5 Year Average Net Salvage Percent (6)
	Transmission Plant					
352	Structures & Improvements	0	0	0	1	0
353	Station Equipment	0	5	0	5	21
354	Towers & Fixtures	(14)	(14)	(5)	(14)	(32)
355	Poles & Fixtures	(90)	(75)	(31)	(106)	(51)
356	Overhead Conductor & Devices	(20)	(20)	(7)	(10)	(1)
359	Roads & Trails	0	0	0	(20)	0
	Total Transmission Plant					
	Distribution Plant					
361	Structures & Improvements	0	0	0	(4)	0
362	Station Equipment	(10)	(17)	(4)	(6)	(17)
364	Poles & Fixtures	(150)	(150)	(52)	(152)	(228)
365	Overhead Conductors & Devices	(53)	(65)	(19)	(55)	(75)
366	Underground Conduit	(40)	(40)	(14)	(43)	45
367	Underground Conductor & Devices	(25)	(25)	(9)	(40)	(58)
368	Line Transformers	0	0	0	4	1
369.01	Overhead Services	(215)	(215)	(75)	(217)	(414)
369.02	Underground Services	(80)	(80)	(28)	(84)	(154)
370	Meters	0	0	0	7	0
371	Installations On Customers' Premises	0	0	0	(2)	0
373	Street Lighting & Signal Systems	(43)	(43)	(15)	(43)	(37)

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Corrected Calculation Of Net Salvage Expense In AmerenUE's Proposed TD&G Depreciation Rates

Line	Account	Depreciable Group	Original Cost Dec. 31, 2008	Net Salvage	Actual Book Reserve	Remaining Life Years	Calculated Remaining Life Depreciation Rates	AmerenUE Proposed Depreciation Rates	Corrected Net Sal Depreciation Rates	Corrected Net Sal In Dep Expense
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Transmission Plant								
1	352	Structures & Improvements	$6,271,634		$2,327,929	38.28	1.64%	1.64%	0.00%	$0
2	353	Station Equipment	228,351,122	0%	62,940,658	41.47	1.75%	1.75%	0.00%	0
3	354	Towers & Fixtures	70,394,133	-14%	44,155,918	38.25	1.34%	1.34%	0.16%	115,883
4	355	Poles & Fixtures	138,655,625	-90%	51,679,866	39.15	3.90%	3.90%	1.85%	2,562,201
5	356	Overhead Conductor & Devices	145,108,058	-20%	49,972,709	34.37	2.49%	2.49%	0.41%	602,061
6	359	Roads & Trails	71,789	0%	80,572	4.39	-2.79%	-2.79%	0.00%	0
		Total	**$588,852,361**		**$211,157,652**					**$3,280,145**
		Distribution Plant								
7	361	Structures & Improvements	$15,366,771	0%	$5,180,137	39.45	1.68%	1.68%	0.00%	$0
8	362	Station Equipment	598,830,057	-10%	189,119,546	43.03	1.82%	1.82%	0.17%	992,111
9	364	Poles & Fixtures	767,060,219	-150%	597,821,521	31.43	5.47%	5.48%	3.28%	25,195,572
10	365	Overhead Conductors & Devices	856,325,270	-53%	273,417,973	38.24	3.17%	3.17%	1.10%	9,391,720
11	366	Underground Conduit	223,547,546	-40%	68,816,867	56.42	1.94%	1.94%	0.55%	1,236,393
12	367	Underground Conductor & Devices	527,667,832	-25%	153,703,427	41.31	2.32%	2.32%	0.46%	2,449,171
13	368	Line Transformers	401,240,245	0%	121,966,245	27.93	2.49%	2.49%	0.00%	0
14	369.1	Overhead Services	153,326,209	-215%	171,826,238	26.21	7.74%	7.74%	5.28%	8,102,732
15	369.2	Underground Services	134,153,521	-80%	85,139,432	38.60	3.02%	3.02%	1.34%	1,800,079
16	370	Meters	106,165,932	0%	36,289,818	15.83	4.16%	4.16%	0.00%	0
17	371	Installations On Customers' Premises	164,611	0%	138,509	7.00	2.26%	2.26%	0.00%	0
18	373	Street Lighting & Signal Systems	109,202,915	-43%	54,093,400	25.56	3.66%	3.66%	1.10%	1,200,760
		Total	**$3,893,051,128**		**$1,757,513,113**					**$50,368,537**
19		**Total T&D**	**$4,481,903,490**		**$1,968,670,765**					**$53,648,682**
		General Plant								
20	390	Structures & Improvements	$189,663,144	-10%	$54,763,375	32.36	2.51%	2.51%	0.23%	$432,255
21	391	Office Furniture & Equipment	55,554,783	0%	34,711,674	8.29	4.53%	4.52%	0.00%	0
22	391.1	Mainframe Computers	0		332,101			0.00%	0.00%	0
23	391.2	Personal Computers	2,077,726	0%	1,503,581	2.43	11.37%	11.39%	0.00%	0
24	392	Transportation Equipment	94,534,723	9%	35,234,174	6.93	7.75%	7.75%	-0.77%	(724,881)
25	393	Stores Equipment	2,924,509	0%	1,529,169	12.27	3.89%	3.89%	0.00%	0
26	394	Tools, Shop, & Garage Equipment	13,425,316	0%	6,526,168	11.45	4.49%	4.49%	0.00%	0
27	395	Laboratory Equipment	7,788,726	0%	3,994,241	11.01	4.42%	4.43%	0.00%	0
28	396	Power Operated Equipment	8,575,690	15%	2,880,490	8.62	5.96%	5.96%	-1.05%	(90,257)
29	397	Communications Equipment	135,601,034	0%	107,798,086	6.17	3.32%	3.32%	0.00%	0
30	398	Miscellaneous Equipment	780,241	0%	282,343	12.83	4.97%	4.97%	0.00%	0
31		Total	**$510,925,892**		**$249,555,402**					**($382,884)**
32		**Total TD&G**	**$4,992,829,381**		**$2,218,226,167**					**$53,265,799**

Notes:

Column 9 is equal to Column 7 multiplied by the ratio -NS/(100%-NS), where NS is the Net Salvage Estimate shown in Column 4

AmerenUE

Corrected Calculation of MIEC's Allocation Of $35 million Offset To Transmission & Distribution Depreciation Rates

Line	Account (1)	Description (2)	Original Cost at Dec. 31, 2008 (3)	AmerenUE Proposed Depreciation Rates (4)	AmerenUE Proposed Annual Depreciation Expense (5)	Net Sal In Dep Expense (6)	Allocation of Dep Accrual Offset (7)	Ratemaking Depreciation Expense (8)	Net Salvage in Ratemaking Depreciation Expense (9)	MIEC Net Salvage Accruals as a Percentage of AmerenUE Net Salvage Accruals (10)	Implied Net Salvage Estimate (11)
		Transmission Plant									
1	352	Structures & Improvements	$6,271,634	1.64%	$102,855	$0	$0	$102,855	$0		0%
2	353	Station Equipment	228,351,122	1.75%	3,996,145	0	0	3,996,145	0		0%
3	354	Towers & Fixtures	70,394,133	1.34%	943,281	115,883	75,601	867,680	40,282	34.761%	-5%
4	355	Poles & Fixtures	138,655,625	3.90%	5,407,569	2,562,201	1,671,561	3,736,008	890,640	34.761%	-31%
5	356	Overhead Conductor & Devices	145,108,058	2.49%	3,613,191	502,061	392,780	3,220,411	209,281	34.761%	-7%
6	359	Roads & Trails	71,789	-2.79%	(2,003)	0	0	(2,003)	0		0%
		Total	**$588,852,361**	**2.39%**	**$14,061,038**	**$3,280,145**	**$2,139,942**	**$11,921,096**	**$1,140,203**		
		Distribution Plant									
7	361	Structures & Improvements	$15,366,771	1.68%	$258,162	$0	$0	$258,162	$0		0%
8	362	Station Equipment	598,830,057	1.82%	10,898,707	992,111	647,246	10,251,461	344,865	34.761%	-3%
9	364	Poles & Fixtures	767,060,219	5.48%	42,034,900	25,195,572	16,437,403	25,597,497	8,758,169	34.761%	-52%
10	365	Overhead Conductors & Devices	856,325,270	3.17%	27,145,511	9,391,720	6,127,088	21,018,423	3,264,632	34.761%	-18%
11	366	Underground Conduit	223,547,546	1.94%	4,336,822	1,236,393	806,613	3,530,209	429,779	34.761%	-14%
12	367	Underground Conductor & Devices	527,667,832	2.32%	12,241,894	2,449,171	1,597,821	10,644,073	851,350	34.761%	-9%
13	368	Line Transformers	401,240,245	2.49%	9,990,882	0	0	9,990,882	0		0%
14	369.1	Overhead Services	153,326,209	7.74%	11,867,449	8,102,732	5,286,162	6,581,287	2,816,570	34.761%	-75%
15	369.2	Underground Services	134,153,521	3.02%	4,051,436	1,800,079	1,174,358	2,877,078	625,721	34.761%	-28%
16	370	Meters	106,165,932	4.16%	4,416,503	0	0	4,416,503	0		0%
17	371	Installations On Customers' Premises	164,611	2.26%	3,720	0	0	3,720	0		0%
18	373	Street Lighting & Signal Systems	109,202,915	3.66%	3,996,827	1,200,760	783,367	3,213,460	417,393	34.761%	-15%
		Total	**$3,893,051,128**	**3.37%**	**$131,242,813**	**$50,368,537**	**$32,860,058**	**$98,382,755**	**$17,508,479**		
		General Plant									
19	390	Structures & Improvements	$189,663,144	2.51%	$4,760,545	$0	$0	$4,760,545	$0		0%
20	391	Office Furniture & Equipment	55,554,783	4.52%	2,511,076	0	0	2,511,076	0		0%
21	391.1	Mainframe Computers	0		0	432,255	0	0	432,255	100.000%	-10%
22	391.2	Personal Computers	2,077,726	11.39%	236,653	0	0	236,653	0		0%
23	392	Transportation Equipment	94,534,723	7.75%	7,326,441	0	0	7,326,441	0		0%
24	393	Stores Equipment	2,924,509	3.89%	113,763	0	0	113,763	0		0%
25	394	Tools, Shop, & Garage Equipment	13,425,316	4.49%	602,797	(724,881)	0	602,797	(724,881)	100.000%	9%
26	395	Laboratory Equipment	7,788,726	4.43%	345,041	0	0	345,041	0		0%
27	396	Power Operated Equipment	8,575,690	5.96%	511,111	0	0	511,111	0		0%
28	397	Communications Equipment	135,601,034	3.32%	4,501,954	0	0	4,501,954	0		0%
29	398	Miscellaneous Equipment	780,241	4.97%	38,778	(90,257)	0	38,778	(90,257)	100.000%	15%
30		**Total**	**$510,925,892**	**4.10%**	**$20,948,159**	**($382,884)**	**$0**	**$20,948,159**	**($382,884)**		
31		**Total TD&G**	**$4,992,829,381**		**$187,200,169**	**$52,882,915**	**$35,000,000**	**$152,200,169**	**$17,882,915**		

Notes:

Column 8 is equal to Column 5 less Column 7.

Column 9 is equal to Column 8 less the Capital Recovery Depreciation Expense, which is equal to Column 5 less Column 6

Column 10 is equal to Column 9 divided by Column 6.

Column 11 is equal to Column 10 multiplied by AmerenUE's net salvage estimate.

AmerenUE

Comparison of Future Estimated Net Salvage Costs and Net Salvage Accrual Using MIEC Proposal During the Period 2009 Through 2092 for Account 364, Poles & Fixtures

MIEC Proposed Net Salvage Accrual

Year	Retirements	Ending Balance	Future Net Salvage Costs	Cumulative Future Net Salvage Costs	Net Salvage Accrual	Cumulative Net Salvage Accrual
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Previous Theoretical Net Salvage Activity -->						*(347,961,867.67)*
2009	6,901,221.60	760,158,997.11	(10,351,832.40)	(10,351,832.40)	(8,823,933.25)	(356,785,800.92)
2010	7,176,564.31	752,982,432.80	(10,764,846.47)	(21,116,678.87)	(8,742,594.93)	(365,528,395.84)
2011	7,529,402.52	745,453,030.28	(11,294,103.78)	(32,410,782.65)	(8,657,627.12)	(374,186,022.96)
2012	7,888,564.89	737,564,465.39	(11,832,847.34)	(44,243,629.98)	(8,568,545.53)	(382,754,568.49)
2013	8,253,324.08	729,311,141.31	(12,379,986.12)	(56,623,616.10)	(8,475,281.28)	(391,229,849.78)
2014	8,621,867.02	720,689,274.29	(12,932,800.53)	(69,556,416.63)	(8,377,780.18)	(399,607,629.96)
2015	8,994,385.23	711,694,889.06	(13,491,577.85)	(83,047,994.48)	(8,275,997.39)	(407,883,627.34)
2016	9,369,555.58	702,325,333.48	(14,054,333.37)	(97,102,327.85)	(8,169,894.62)	(416,053,521.96)
2017	9,746,295.62	692,579,037.86	(14,619,443.43)	(111,721,771.28)	(8,059,447.48)	(424,112,969.44)
2018	10,123,791.38	682,455,246.48	(15,185,687.07)	(126,907,458.35)	(7,944,642.53)	(432,057,611.97)
2019	10,501,473.55	671,953,772.93	(15,752,210.33)	(142,659,668.67)	(7,825,474.33)	(439,883,086.31)
2020	10,879,878.09	661,073,894.84	(16,319,817.14)	(158,979,485.81)	(7,701,937.64)	(447,585,023.94)
2021	11,257,018.84	649,816,876.00	(16,885,528.26)	(175,865,014.07)	(7,574,035.56)	(455,159,059.51)
2022	11,632,626.65	638,184,249.35	(17,448,939.98)	(193,313,954.04)	(7,441,784.28)	(462,600,843.79)
2023	12,004,617.76	626,179,631.59	(18,006,926.64)	(211,320,880.68)	(7,305,213.53)	(469,906,057.32)
2024	12,374,006.49	613,805,625.10	(18,561,009.74)	(229,881,890.42)	(7,164,359.26)	(477,070,416.58)
2025	12,738,950.43	601,066,674.67	(19,108,425.65)	(248,990,316.06)	(7,019,262.18)	(484,089,678.76)
2026	13,097,968.68	587,968,705.99	(19,646,953.02)	(268,637,269.08)	(6,869,982.20)	(490,959,660.96)
2027	13,449,586.33	574,519,119.66	(20,174,379.50)	(288,811,648.58)	(6,716,596.33)	(497,676,257.29)
2028	13,792,339.33	560,726,780.33	(20,688,509.00)	(309,500,157.57)	(6,559,198.53)	(504,235,455.82)
2029	14,125,911.97	546,600,868.36	(21,188,867.96)	(330,689,025.53)	(6,397,893.08)	(510,633,348.90)
2030	14,446,660.31	532,154,208.05	(21,669,990.47)	(352,359,015.99)	(6,232,807.11)	(516,866,156.01)
2031	14,754,418.59	517,399,789.46	(22,131,627.89)	(374,490,643.88)	(6,064,089.76)	(522,930,245.77)
2032	15,045,240.55	502,354,548.91	(22,567,860.83)	(397,058,504.70)	(5,891,913.96)	(528,822,159.73)
2033	15,319,480.06	487,035,068.85	(22,979,220.09)	(420,037,724.79)	(5,716,473.35)	(534,538,633.07)
2034	15,573,570.55	471,461,498.30	(23,360,355.83)	(443,398,080.62)	(5,537,980.17)	(540,076,613.24)
2035	15,805,527.47	455,655,970.83	(23,708,291.21)	(467,106,371.82)	(5,356,678.71)	(545,433,291.95)
2036	16,012,905.28	439,643,065.55	(24,019,357.92)	(491,125,729.74)	(5,172,838.88)	(550,606,130.83)
2037	16,193,390.71	423,449,674.84	(24,290,086.07)	(515,415,815.81)	(4,986,758.06)	(555,592,888.88)
2038	16,346,044.13	407,103,630.71	(24,519,066.20)	(539,934,882.00)	(4,798,752.43)	(560,391,641.32)
2039	16,466,819.73	390,636,810.98	(24,700,229.60)	(564,635,111.60)	(4,609,167.00)	(565,000,808.31)
2040	16,556,963.94	374,079,847.04	(24,835,445.91)	(589,470,557.51)	(4,418,362.91)	(569,419,171.22)
2041	16,611,439.46	357,468,407.58	(24,917,159.19)	(614,387,716.70)	(4,226,723.25)	(573,645,894.47)
2042	16,631,050.44	340,837,357.14	(24,946,575.66)	(639,334,292.36)	(4,034,655.53)	(577,680,550.00)
2043	16,613,209.44	324,224,147.70	(24,919,814.16)	(664,254,106.52)	(3,842,577.58)	(581,523,127.59)
2044	16,557,464.70	307,666,683.00	(24,836,197.05)	(689,090,303.57)	(3,650,924.80)	(585,174,052.39)
2045	16,462,073.80	291,204,609.20	(24,693,110.70)	(713,783,414.27)	(3,460,145.24)	(588,634,197.63)
2046	16,325,279.92	274,879,329.28	(24,487,919.88)	(738,271,334.15)	(3,270,707.20)	(591,904,904.83)
2047	16,146,982.81	258,732,346.47	(24,220,474.22)	(762,491,808.36)	(3,083,089.68)	(594,987,994.51)
2048	15,924,973.99	242,807,372.48	(23,887,460.99)	(786,379,269.35)	(2,897,785.04)	(597,885,779.56)
2049	15,661,632.21	227,145,740.27	(23,492,448.32)	(809,871,717.66)	(2,715,284.65)	(600,601,064.21)
2050	15,352,191.96	211,793,548.31	(23,028,287.94)	(832,900,005.60)	(2,536,093.67)	(603,137,157.87)
2051	14,998,530.10	196,795,018.21	(22,497,795.15)	(855,397,800.75)	(2,360,733.94)	(605,497,891.81)
2052	14,601,080.49	182,193,937.72	(21,901,620.74)	(877,299,421.49)	(2,189,713.97)	(607,687,605.78)
2053	14,161,254.32	168,032,683.40	(21,241,881.48)	(898,541,302.97)	(2,023,531.59)	(609,711,137.37)
2054	13,679,075.47	154,353,607.93	(20,518,613.21)	(919,059,916.17)	(1,862,676.35)	(611,573,813.72)
2055	13,155,732.47	141,197,875.46	(19,733,598.71)	(938,793,514.88)	(1,707,630.79)	(613,281,444.51)
2056	12,594,165.04	128,603,710.42	(18,891,247.56)	(957,684,762.44)	(1,558,853.61)	(614,840,298.12)
2057	11,999,060.35	116,604,650.07	(17,998,590.53)	(975,683,352.96)	(1,416,759.42)	(616,257,057.54)
2058	11,374,146.24	105,230,503.83	(17,061,219.36)	(992,744,572.32)	(1,281,714.22)	(617,538,771.76)
2059	10,724,491.14	94,506,012.69	(16,086,736.71)	(1,008,831,309.03)	(1,154,033.21)	(618,692,804.97)
2060	10,055,154.03	84,450,858.66	(15,082,731.05)	(1,023,914,040.08)	(1,033,973.03)	(619,726,778.00)
2061	9,374,157.03	75,076,701.63	(14,061,235.55)	(1,037,975,275.62)	(921,714.79)	(620,648,492.79)
2062	8,688,277.78	66,388,423.85	(13,032,416.67)	(1,051,007,692.29)	(817,354.06)	(621,465,846.85)
2063	8,004,598.35	58,383,825.50	(12,006,897.53)	(1,063,014,589.82)	(720,906.33)	(622,186,753.18)
2064	7,330,484.23	51,053,341.27	(10,995,726.35)	(1,074,010,316.16)	(632,303.63)	(622,819,056.81)
2065	6,670,873.95	44,382,467.32	(10,006,310.93)	(1,084,016,627.09)	(551,406.89)	(623,370,463.70)
2066	6,034,969.21	38,347,498.11	(9,052,453.82)	(1,093,069,080.90)	(477,995.36)	(623,848,459.06)

AmerenUE

Comparison of Future Estimated Net Salvage Costs and Net Salvage Accrual Using MIEC Proposal
During the Period 2009 Through 2092 for Account 364, Poles & Fixtures
MIEC Proposed Net Salvage Accrual

Year	Retirements	Ending Balance	Future Net Salvage Costs	Cumulative Future Net Salvage Costs	Net Salvage Accrual	Cumulative Net Salvage Accrual
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2067	5,423,644.35	32,923,853.76	(8,135,466.53)	(1,101,204,547.43)	(411,790.03)	(624,260,249.09)
2068	4,846,837.54	28,077,016.22	(7,270,256.31)	(1,108,474,803.74)	(352,449.47)	(624,612,698.56)
2069	4,302,801.84	23,774,214.38	(6,454,202.76)	(1,114,929,006.50)	(299,584.89)	(624,912,283.45)
2070	3,795,015.34	19,979,199.04	(5,692,523.01)	(1,120,621,529.51)	(252,797.50)	(625,165,080.95)
2071	3,323,954.86	16,655,244.18	(4,985,932.29)	(1,125,607,461.80)	(211,665.67)	(625,376,746.62)
2072	2,890,851.29	13,764,392.89	(4,336,276.94)	(1,129,943,738.73)	(175,757.90)	(625,552,504.53)
2073	2,495,750.98	11,268,641.91	(3,743,626.47)	(1,133,687,365.20)	(144,635.31)	(625,697,139.84)
2074	2,135,774.65	9,132,867.26	(3,203,661.98)	(1,136,891,027.18)	(117,875.39)	(625,815,015.23)
2075	1,812,128.98	7,320,738.28	(2,718,193.47)	(1,139,609,220.65)	(95,065.28)	(625,910,080.50)
2076	1,520,944.55	5,799,793.73	(2,281,416.83)	(1,141,890,637.47)	(75,807.52)	(625,985,888.02)
2077	1,265,448.56	4,534,345.17	(1,898,172.84)	(1,143,788,810.31)	(59,708.36)	(626,045,596.38)
2078	1,040,820.05	3,493,525.12	(1,561,230.08)	(1,145,350,040.39)	(46,383.25)	(626,091,979.63)
2079	846,316.54	2,647,208.58	(1,269,474.81)	(1,146,619,515.20)	(35,479.79)	(626,127,459.42)
2080	679,804.37	1,967,404.21	(1,019,706.56)	(1,147,639,221.75)	(26,662.21)	(626,154,121.63)
2081	539,675.55	1,427,728.66	(809,513.33)	(1,148,448,735.08)	(19,616.32)	(626,173,737.95)
2082	422,916.28	1,004,812.38	(634,374.42)	(1,149,083,109.50)	(14,054.68)	(626,187,792.64)
2083	325,044.76	679,767.62	(487,567.14)	(1,149,570,676.64)	(9,733.13)	(626,197,525.76)
2084	243,586.64	436,180.98	(365,379.96)	(1,149,936,056.60)	(6,447.70)	(626,203,973.47)
2085	174,914.74	261,266.24	(262,372.11)	(1,150,198,428.71)	(4,029.70)	(626,208,003.16)
2086	118,902.35	142,363.89	(178,353.53)	(1,150,376,782.23)	(2,332.09)	(626,210,335.25)
2087	74,317.68	68,046.21	(111,476.52)	(1,150,488,258.75)	(1,215.70)	(626,211,550.95)
2088	41,242.13	26,804.08	(61,863.20)	(1,150,550,121.95)	(548.02)	(626,212,098.97)
2089	19,096.50	7,707.58	(28,644.75)	(1,150,578,766.70)	(199.40)	(626,212,298.38)
2090	6,581.62	1,125.96	(9,872.43)	(1,150,588,639.13)	(51.04)	(626,212,349.41)
2091	1,114.23	11.73	(1,671.35)	(1,150,590,310.47)	(6.57)	(626,212,355.99)
2092	11.73	0.00	(17.60)	(1,150,590,328.07)	(0.07)	(626,212,356.05)
					Shortfall	***524,377,972.01***

Notes:

Column 2 is derived from the survivor curve for Account 364.

Column 3 is equal to the prior year's ending balance less the current year's retirements.

Column 4 is equal to 150% multiplied by Column 2.

Column 5 is the cumulative sum of Future Net Salvage Costs in Column 4.

Column 6 is equal to the net salvage accrual rate multiplied by the average plant balance for the year. The net salvage accrual rate is equal to the net salvage percent divided by the average service life. The average plant balance for the year is the average of the prior year's ending balance and the current year's ending balance.

Column 7 is the cumulative sum of the Net Salvage Accruals in Column 6. The first entry in column 7, or the Previous Theoretical Net Salvage Activity, is the net salvage portion of the theoretical reserve based on the company's estimated net salvage estimate. Had MIEC's proposal been used from the inception of the account, the shortfall would be even greater.

AmerenUE

Comparison of Future Estimated Net Salvage Costs and Net Salvage Accrual Using MIEC Proposal During the Period 2009 Through 2106 for Account 365, Overhead Conductors & Devices

MIEC Proposed Net Salvage Accrual

Year (1)	Retirements (2)	Ending Balance (3)	Future Net Salvage Costs (4)	Cumulative Future Net Salvage Costs (5)	Net Salvage Accrual (6)	Cumulative Net Salvage Accrual (7)
Previous Theoretical Net Salvage Activity ---------->						*(99,845,502.31)*
2009	8,605,176.63	847,720,093.36	(4,560,743.61)	(4,560,743.61)	(3,129,879.24)	(102,975,381.55)
2010	8,771,458.45	838,948,634.91	(4,648,872.98)	(9,209,616.59)	(3,097,962.97)	(106,073,344.52)
2011	8,937,517.66	830,011,117.25	(4,736,884.36)	(13,946,500.95)	(3,065,436.28)	(109,138,780.80)
2012	9,103,484.83	820,907,632.42	(4,824,846.96)	(18,771,347.91)	(3,032,299.74)	(112,171,080.55)
2013	9,269,259.71	811,638,372.71	(4,912,707.65)	(23,684,055.56)	(2,998,553.89)	(115,169,634.43)
2014	9,434,605.57	802,203,767.14	(5,000,340.95)	(28,684,396.51)	(2,964,199.85)	(118,133,834.28)
2015	9,599,409.48	792,604,357.66	(5,087,687.02)	(33,772,083.53)	(2,929,239.41)	(121,063,073.69)
2016	9,763,593.67	782,840,763.99	(5,174,704.65)	(38,946,788.18)	(2,893,674.71)	(123,956,748.41)
2017	9,927,099.42	772,913,664.57	(5,261,362.69)	(44,208,150.87)	(2,857,508.13)	(126,814,256.54)
2018	10,089,923.48	762,823,741.09	(5,347,659.44)	(49,555,810.32)	(2,820,742.17)	(129,634,998.72)
2019	10,251,908.04	752,571,833.05	(5,433,511.26)	(54,989,321.58)	(2,783,379.63)	(132,418,378.34)
2020	10,412,861.78	742,158,971.27	(5,518,816.74)	(60,508,138.32)	(2,745,423.93)	(135,163,802.27)
2021	10,572,719.98	731,586,251.29	(5,603,541.59)	(66,111,679.91)	(2,706,878.98)	(137,870,681.25)
2022	10,731,486.60	720,854,764.69	(5,687,687.90)	(71,799,367.81)	(2,667,748.80)	(140,538,430.05)
2023	10,889,135.38	709,965,629.31	(5,771,241.75)	(77,570,609.56)	(2,628,037.46)	(143,166,467.51)
2024	11,045,675.98	698,919,953.33	(5,854,208.27)	(83,424,817.83)	(2,587,749.03)	(145,754,216.54)
2025	11,200,942.86	687,719,010.47	(5,936,499.72)	(89,361,317.55)	(2,546,887.89)	(148,301,104.43)
2026	11,354,675.25	676,364,335.22	(6,017,977.88)	(95,379,295.43)	(2,505,459.21)	(150,806,563.64)
2027	11,506,549.46	664,857,785.76	(6,098,471.21)	(101,477,766.64)	(2,463,469.20)	(153,270,032.84)
2028	11,656,179.19	653,201,606.57	(6,177,774.97)	(107,655,541.61)	(2,420,925.41)	(155,690,958.26)
2029	11,803,143.69	641,398,462.8	(6,255,666.16)	(113,911,207.77)	(2,377,836.86)	(158,068,795.12)
2030	11,946,998.90	629,451,463.9	(6,331,909.42)	(120,243,117.19)	(2,334,214.15)	(160,403,009.27)
2031	12,087,178.13	617,364,285.8	(6,406,204.41)	(126,649,321.59)	(2,290,069.74)	(162,693,079.01)
2032	12,222,907.39	605,141,378.4	(6,478,140.92)	(133,127,462.51)	(2,245,418.57)	(164,938,497.58)
2033	12,353,703.63	592,787,674.8	(6,547,462.92)	(139,674,925.43)	(2,200,277.85)	(167,138,775.43)
2034	12,478,795.60	580,308,879.2	(6,613,761.67)	(146,288,687.10)	(2,154,667.14)	(169,293,442.57)
2035	12,597,805.30	567,711,073.9	(6,676,836.81)	(152,965,523.91)	(2,108,608.08)	(171,402,050.65)
2036	12,710,397.10	555,000,676.8	(6,736,510.46)	(159,702,034.37)	(2,062,123.62)	(173,464,174.28)
2037	12,816,107.63	542,184,569.2	(6,792,537.04)	(166,494,571.42)	(2,015,238.21)	(175,479,412.48)
2038	12,914,089.87	529,270,479.3	(6,844,467.63)	(173,339,039.05)	(1,967,978.66)	(177,447,391.14)
2039	13,003,756.28	516,266,723.0	(6,891,990.83)	(180,231,029.88)	(1,920,374.45)	(179,367,765.60)
2040	13,084,739.75	503,181,983.3	(6,934,912.07)	(187,165,941.95)	(1,872,456.81)	(181,240,222.40)
2041	13,156,493.04	490,025,490.2	(6,972,941.31)	(194,138,883.26)	(1,824,258.62)	(183,064,481.03)
2042	13,218,185.56	476,807,304.7	(7,005,638.35)	(201,144,521.60)	(1,775,815.34)	(184,840,296.37)
2043	13,269,209.55	463,538,095.1	(7,032,681.06)	(208,177,202.67)	(1,727,165.02)	(186,567,461.39)
2044	13,308,985.98	450,229,109.1	(7,053,762.57)	(215,230,965.23)	(1,678,347.93)	(188,245,809.31)
2045	13,337,011.34	436,892,097.8	(7,068,616.01)	(222,299,581.24)	(1,629,406.30)	(189,875,215.61)
2046	13,353,018.25	423,539,079.5	(7,077,099.67)	(229,376,680.92)	(1,580,383.80)	(191,455,599.41)
2047	13,357,016.42	410,182,063.1	(7,079,218.70)	(236,455,899.62)	(1,531,324.55)	(192,986,923.95)
2048	13,348,834.96	396,833,228.20	(7,074,882.53)	(243,530,782.15)	(1,482,272.98)	(194,469,196.94)
2049	13,328,035.18	383,505,193.02	(7,063,858.65)	(250,594,640.79)	(1,433,274.65)	(195,902,471.59)
2050	13,294,292.31	370,210,900.7	(7,045,974.92)	(257,640,615.72)	(1,384,376.50)	(197,286,848.09)
2051	13,246,997.69	356,963,903.02	(7,020,908.78)	(264,661,524.49)	(1,335,627.19)	(198,622,475.28)
2052	13,185,540.17	343,778,362.85	(6,988,336.29)	(271,649,860.78)	(1,287,077.63)	(199,909,552.91)
2053	13,109,738.23	330,668,624.62	(6,948,161.26)	(278,598,022.05)	(1,238,780.18)	(201,148,333.09)
2054	13,020,155.20	317,648,469.42	(6,900,682.26)	(285,498,704.30)	(1,190,786.50)	(202,339,119.59)
2055	12,917,199.60	304,731,269.82	(6,846,115.79)	(292,344,820.09)	(1,143,146.46)	(203,482,266.05)
2056	12,800,380.60	291,930,889.22	(6,784,201.72)	(299,129,021.81)	(1,095,910.09)	(204,578,176.14)
2057	12,669,191.51	279,261,697.[illegible]1	(6,714,671.50)	(305,843,693.31)	(1,049,129.24)	(205,627,305.38)
2058	12,523,377.92	266,738,319.79	(6,637,390.30)	(312,481,083.61)	(1,002,857.18)	(206,630,162.56)
2059	12,362,691.82	254,375,627.97	(6,552,226.66)	(319,033,310.27)	(957,148.07)	(207,587,310.62)
2060	12,186,980.51	242,188,647.46	(6,459,099.67)	(325,492,409.94)	(912,056.83)	(208,499,367.45)
2061	11,996,190.49	230,192,456.97	(6,357,980.96)	(331,850,390.90)	(867,638.76)	(209,367,006.22)
2062	11,790,074.49	218,402,382.48	(6,248,739.48)	(338,099,130.38)	(823,949.71)	(210,190,955.92)
2063	11,568,876.29	206,833,506.19	(6,131,504.43)	(344,230,634.81)	(781,045.51)	(210,972,001.43)
2064	11,333,436.82	195,500,069.[illegible]7	(6,006,721.51)	(350,237,356.33)	(738,980.04)	(211,710,981.47)
2065	11,084,597.54	184,415,471.83	(5,874,836.70)	(356,112,193.02)	(697,804.06)	(212,408,785.53)
2066	10,822,500.64	173,592,971.19	(5,735,925.34)	(361,848,118.36)	(657,566.53)	(213,066,352.05)

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Comparison of Future Estimated Net Salvage Costs and Net Salvage Accrual Using MIEC Proposal During the Period 2009 Through 2106 for Account 365, Overhead Conductors & Devices

MIEC Proposed Net Salvage Accrual

Year (1)	Retirements (2)	Ending Balance (3)	Future Net Salvage Costs (4)	Cumulative Future Net Salvage Costs (5)	Net Salvage Accrual (6)	Cumulative Net Salvage Accrual (7)
2067	10,547,453.40	163,045,517.79	(5,590,150.30)	(367,438,268.67)	(618,315.59)	(213,684,667.65)
2068	10,260,127.35	152,785,390.44	(5,437,867.50)	(372,876,136.16)	(580,097.59)	(214,264,765.23)
2069	9,960,870.99	142,824,519.45	(5,279,261.62)	(378,155,397.79)	(542,956.98)	(214,807,722.21)
2070	9,650,302.89	133,174,216.56	(5,114,660.53)	(383,270,058.32)	(506,936.45)	(215,314,658.66)
2071	9,329,173.70	123,845,042.86	(4,944,462.06)	(388,214,520.38)	(472,076.19)	(215,786,734.85)
2072	8,998,484.35	114,846,558.51	(4,769,196.71)	(392,983,717.08)	(438,413.15)	(216,225,148.00)
2073	8,659,223.01	106,187,335.5	(4,589,388.20)	(397,573,105.28)	(405,980.62)	(216,631,128.62)
2074	8,311,577.97	97,875,757.5	(4,405,136.32)	(401,978,241.60)	(374,809.76)	(217,005,938.38)
2075	7,956,278.15	89,919,479.3	(4,216,827.42)	(406,195,069.02)	(344,930.03)	(217,350,868.41)
2076	7,594,617.28	82,324,862.1	(4,025,147.16)	(410,220,216.18)	(316,367.16)	(217,667,235.57)
2077	7,227,882.60	75,096,979.5	(3,830,777.78)	(414,050,993.96)	(289,142.16)	(217,956,377.73)
2078	6,857,793.81	68,239,185.6	(3,634,630.72)	(417,685,624.68)	(263,270.51)	(218,219,648.23)
2079	6,486,108.22	61,753,077.4	(3,437,637.36)	(421,123,262.04)	(238,761.30)	(218,458,409.53)
2080	6,113,744.94	55,639,332.5	(3,240,284.82)	(424,363,546.85)	(215,618.71)	(218,674,028.25)
2081	5,741,918.26	49,897,414.2	(3,043,216.68)	(427,406,763.53)	(193,843.00)	(218,867,871.25)
2082	5,371,364.84	44,526,049.4	(2,846,823.37)	(430,253,586.90)	(173,430.85)	(219,041,302.10)
2083	5,003,381.33	39,522,668.1	(2,651,792.10)	(432,905,379.00)	(154,375.20)	(219,195,677.30)
2084	4,638,896.59	34,883,771.5	(2,458,615.19)	(435,363,994.19)	(136,664.89)	(219,332,342.19)
2085	4,280,405.08	30,603,366.4	(2,268,614.69)	(437,632,608.89)	(120,282.50)	(219,452,624.68)
2086	3,929,666.80	26,673,699.6	(2,082,723.40)	(439,715,332.29)	(105,202.77)	(219,557,827.46)
2087	3,588,877.40	23,084,822.2	(1,902,105.02)	(441,617,437.31)	(91,393.20)	(219,649,220.66)
2088	3,260,773.15	19,824,049.0	(1,728,209.77)	(443,345,647.08)	(78,812.21)	(219,728,032.87)
2089	2,945,340.57	16,878,708.5	(1,561,030.50)	(444,906,677.58)	(67,413.23)	(219,795,446.10)
2090	2,641,423.74	14,237,284.7	(1,399,954.58)	(446,306,632.17)	(57,151.82)	(219,852,597.93)
2091	2,350,462.57	11,886,822.2	(1,245,745.16)	(447,552,377.33)	(47,983.05)	(219,900,580.98)
2092	2,074,147.85	9,812,674.3	(1,099,298.36)	(448,651,675.69)	(39,856.22)	(219,940,437.20)
2093	1,812,735.43	7,999,938.9	(960,749.78)	(449,612,425.47)	(32,717.04)	(219,973,154.24)
2094	1,568,513.86	6,431,425.0	(831,312.35)	(450,443,737.81)	(26,506.59)	(219,999,660.83)
2095	1,343,651.86	5,087,773.2	(712,135.49)	(451,155,873.30)	(21,157.71)	(220,020,818.54)
2096	1,139,742.23	3,948,030.9	(604,063.38)	(451,759,936.68)	(16,596.38)	(220,037,414.92)
2097	955,353.53	2,992,677.4	(506,337.37)	(452,266,274.05)	(12,748.24)	(220,050,163.16)
2098	788,744.29	2,203,933.1	(418,034.47)	(452,684,308.53)	(9,544.79)	(220,059,707.95)
2099	639,910.22	1,564,022.9	(339,152.42)	(453,023,460.94)	(6,920.74)	(220,066,628.69)
2100	508,143.15	1,055,879.7	(269,315.87)	(453,292,776.81)	(4,812.07)	(220,071,440.75)
2101	391,813.24	664,066.5	(207,661.02)	(453,500,437.83)	(3,159.09)	(220,074,599.84)
2102	286,771.31	377,295.2	(151,988.79)	(453,652,426.62)	(1,912.71)	(220,076,512.54)
2103	193,611.67	183,683.5	(102,614.19)	(453,755,040.81)	(1,030.37)	(220,077,542.91)
2104	114,006.64	69,676.9	(60,423.52)	(453,815,464.33)	(465.36)	(220,078,008.27)
2105	54,742.94	14,933.9	(29,013.76)	(453,844,478.09)	(155.41)	(220,078,163.68)
2106	14,933.98	(0.0	(7,915.01)	(453,852,393.09)	(27.43)	(220,078,191.11)
					Shortfall	***233,774,201.99***

Notes:

Column 2 is derived from the survivor curve for Account 365.

Column 3 is equal to the prior year's ending balance less the current year's retirements.

Column 4 is equal to 53% multiplied by Column 2.

Column 5 is the cumulative sum of Future Net Salvage Costs in Column 4.

Column 6 is equal to the net salvage accrual rate multiplied by the average plant balance for the year. The net salvage accrual rate is equal to the net salvage percent divided by the average service life. The average plant balance for the year is the average of the prior year's ending balance and the current year's ending balance.

Column 7 is the cumulative sum of the Net Salvage Accruals in Column 6. The first entry in column 7, or the Previous Theoretical Net Salvage Activity, is the net salvage portion of the theoretical reserve based on the company's estimated net salvage estimate. Had MIEC's proposal been used from the inception of the account, the shortfall would be even greater.

AmerenUE Electric Distribution Plant Value, Transmission Plant Value and Residential Customers

Year Ending	Distribution Plant Value		Transmission Plant Value		Number of Residential Customers	
	Amount	% of 2009 Amount	Amount	% of 2009 Amount	Amount	% of 2009 Amount
1950	$ 29,669,343	1%			433,563	42%
1955	160,540,641	4%			498,131	48%
1960	255,653,682	6%			544,864	53%
1965	348,830,229	8%			591,070	57%
1970	460,626,569	11%	232,366,047	36%	636,165	62%
1975	592,172,528	14%	300,449,266	47%	671,780	65%
1980	774,505,250	18%	350,822,076	55%	709,386	69%
1985	1,315,948,047	31%	467,615,921	73%	901,777	87%
1990	1,878,005,858	45%	377,970,150	59%	957,102	93%
1995	2,391,828,442	57%	417,539,867	65%	991,791	96%
2000	2,909,500,400	69%	486,468,896	76%	1,027,803	99%
2003	3,227,100,869	77%	533,254,818	83%	1,056,643	102%
2005	3,320,991,763	79%	497,905,289	78%	1,028,897	100%
2009	4,208,426,843	100%	639,495,858	100%	1,033,362	100%

Source
Plant Values per End Balance on Page 207 of Form Ferc No. 1 and Ameren Internal F&S Statements
# of Residential Customers per Page 301 on Form Ferc No. 1

AmerenUE

Comparison of Future Estimated Net Salvage Costs and Net Salvage Accrual During the Period 2009 Through 2092 for Account 364, Poles & Fixtures
AmerenUE Proposed Net Salvage Accrual

Year (1)	Retirements (2)	Ending Balance (3)	Future Net Salvage Costs (4)	Cumulative Future Net Salvage Costs (5)	Net Salvage Accrual (6)	Cumulative Net Salvage Accrual (7)
Previous Theoretical Net Salvage Activity -->						*(347,961,867.67)*
2009	6,901,221.60	760,158,997.1	(10,351,832.40)	(10,351,832.40)	(25,453,653.60)	(373,415,521.27)
2010	7,176,564.31	752,982,432.80	(10,764,846.47)	(21,116,678.87)	(25,219,023.83)	(398,634,545.10)
2011	7,529,402.52	745,453,030.2	(11,294,103.78)	(32,410,782.65)	(24,973,924.38)	(423,608,469.48)
2012	7,888,564.89	737,564,465.3	(11,832,847.34)	(44,243,629.98)	(24,716,958.26)	(448,325,427.74)
2013	8,253,324.08	729,311,141.3	(12,379,986.12)	(56,623,616.10)	(24,447,926.78)	(472,773,354.52)
2014	8,621,867.02	720,689,274.2	(12,932,800.53)	(69,556,416.63)	(24,166,673.59)	(496,940,028.11)
2015	8,994,385.23	711,694,889.06	(13,491,577.85)	(83,047,994.48)	(23,873,069.39)	(520,813,097.50)
2016	9,369,555.58	702,325,333.4	(14,054,333.37)	(97,102,327.85)	(23,567,003.71)	(544,380,101.21)
2017	9,746,295.62	692,579,037.8	(14,619,443.43)	(111,721,771.28)	(23,248,406.19)	(567,628,507.40)
2018	10,123,791.38	682,455,246.4	(15,185,687.07)	(126,907,458.35)	(22,917,238.07)	(590,545,745.47)
2019	10,501,473.55	671,953,772.9	(15,752,210.33)	(142,659,668.67)	(22,573,483.66)	(613,119,229.13)
2020	10,879,878.09	661,073,894.8	(16,319,817.14)	(158,979,485.81)	(22,217,127.80)	(635,336,356.93)
2021	11,257,018.84	649,816,876.0	(16,885,528.26)	(175,865,014.07)	(21,848,179.51)	(657,184,536.44)
2022	11,632,626.65	638,184,249.3	(17,448,939.98)	(193,313,954.04)	(21,466,685.42)	(678,651,221.86)
2023	12,004,617.76	626,179,631.5	(18,006,926.64)	(211,320,880.68)	(21,072,731.35)	(699,723,953.21)
2024	12,374,006.49	613,805,625.1	(18,561,009.74)	(229,881,890.42)	(20,666,420.94)	(720,390,374.16)
2025	12,738,950.43	601,066,674.6	(19,108,425.65)	(248,990,316.06)	(20,247,871.66)	(740,638,245.82)
2026	13,097,968.68	587,968,705.9	(19,646,953.02)	(268,637,269.08)	(19,817,256.34)	(760,455,502.16)
2027	13,449,586.33	574,519,119.6	(20,174,379.50)	(288,811,648.58)	(19,374,797.09)	(779,830,299.26)
2028	13,792,339.33	560,726,780.3	(20,688,509.00)	(309,500,157.57)	(18,920,765.00)	(798,751,064.26)
2029	14,125,911.97	546,600,868.3	(21,188,867.96)	(330,689,025.53)	(18,455,460.81)	(817,206,525.07)
2030	14,446,660.31	532,154,208.0	(21,669,990.47)	(352,359,015.99)	(17,979,251.27)	(835,185,776.34)
2031	14,754,418.59	517,399,789.4	(22,131,627.89)	(374,490,643.88)	(17,492,566.63)	(852,678,342.97)
2032	15,045,240.55	502,354,548.9	(22,567,860.83)	(397,058,504.70)	(16,995,905.64)	(869,674,248.61)
2033	15,319,480.06	487,035,068.8	(22,979,220.09)	(420,037,724.79)	(16,489,826.96)	(886,164,075.57)
2034	15,573,570.55	471,461,498.3	(23,360,355.83)	(443,398,080.62)	(15,974,942.79)	(902,139,018.36)
2035	15,805,527.47	455,655,970.8	(23,708,291.21)	(467,106,371.82)	(15,451,957.82)	(917,590,976.18)
2036	16,012,905.28	439,643,065.5	(24,019,357.92)	(491,125,729.74)	(14,921,650.61)	(932,512,626.78)
2037	16,193,390.71	423,449,674.8	(24,290,086.07)	(515,415,815.81)	(14,384,879.01)	(946,897,505.79)
2038	16,346,044.13	407,103,630.7	(24,519,066.20)	(539,934,882.00)	(13,842,555.09)	(960,740,060.88)
2039	16,466,819.73	390,636,810.9	(24,700,229.60)	(564,635,111.60)	(13,295,674.03)	(974,035,734.91)
2040	16,556,963.94	374,079,847.0	(24,835,445.91)	(589,470,557.51)	(12,745,277.63)	(986,781,012.54)
2041	16,611,439.46	357,468,407.5	(24,917,159.19)	(614,387,716.70)	(12,192,470.91)	(998,973,483.45)
2042	16,631,050.44	340,837,357.1	(24,946,575.66)	(639,334,292.36)	(11,638,429.41)	(1,010,611,912.86)
2043	16,613,209.44	324,224,147.7	(24,919,814.16)	(664,254,106.52)	(11,084,358.41)	(1,021,696,271.28)
2044	16,557,464.70	307,666,683.0	(24,836,197.05)	(689,090,303.57)	(10,531,513.85)	(1,032,227,785.12)
2045	16,462,073.80	291,204,609.2	(24,693,110.70)	(713,783,414.27)	(9,981,188.20)	(1,042,208,973.33)
2046	16,325,279.92	274,879,329.2	(24,487,919.88)	(738,271,334.15)	(9,434,732.31)	(1,051,643,705.64)
2047	16,146,982.81	258,732,346.4	(24,220,474.22)	(762,491,808.36)	(8,893,527.93)	(1,060,537,233.56)
2048	15,924,973.99	242,807,372.4	(23,887,460.99)	(786,379,269.35)	(8,358,995.32)	(1,068,896,228.88)
2049	15,661,632.21	227,145,740.2	(23,492,448.32)	(809,871,717.66)	(7,832,551.88)	(1,076,728,780.76)
2050	15,352,191.96	211,793,548.3	(23,028,287.94)	(832,900,005.60)	(7,315,654.81)	(1,084,044,435.57)
2051	14,998,530.10	196,795,018.2	(22,497,795.15)	(855,397,800.75)	(6,809,809.44)	(1,090,854,245.01)
2052	14,601,080.49	182,193,937.7	(21,901,620.74)	(877,299,421.49)	(6,316,482.60)	(1,097,170,727.61)
2053	14,161,254.32	168,032,683.4	(21,241,881.48)	(898,541,302.97)	(5,837,110.35)	(1,103,007,837.96)
2054	13,679,075.47	154,353,607.9	(20,518,613.21)	(919,059,916.17)	(5,373,104.86)	(1,108,380,942.82)
2055	13,155,732.47	141,197,875.4	(19,733,598.71)	(938,793,514.88)	(4,925,858.06)	(1,113,306,800.87)
2056	12,594,165.04	128,603,710.4	(18,891,247.56)	(957,684,762.44)	(4,496,693.10)	(1,117,803,493.97)
2057	11,999,060.35	116,604,650.0	(17,998,590.53)	(975,683,352.96)	(4,086,806.01)	(1,121,890,299.98)
2058	11,374,146.24	105,230,503.8	(17,061,219.36)	(992,744,572.32)	(3,697,252.57)	(1,125,587,552.55)
2059	10,724,491.14	94,506,012.6	(16,086,736.71)	(1,008,831,309.03)	(3,328,941.94)	(1,128,916,494.49)
2060	10,055,154.03	84,450,858.6	(15,082,731.05)	(1,023,914,040.08)	(2,982,614.52)	(1,131,899,109.01)
2061	9,374,157.03	75,076,701.6	(14,061,235.55)	(1,037,975,275.62)	(2,658,792.67)	(1,134,557,901.68)
2062	8,688,277.78	66,388,423.8	(13,032,416.67)	(1,051,007,692.29)	(2,357,752.09)	(1,136,915,653.77)
2063	8,004,598.35	58,383,825.5	(12,006,897.53)	(1,063,014,589.82)	(2,079,537.49)	(1,138,995,191.26)
2064	7,330,484.23	51,053,341.2	(10,995,726.35)	(1,074,010,316.16)	(1,823,952.78)	(1,140,819,144.04)
2065	6,670,873.95	44,382,467.32	(10,006,310.93)	(1,084,016,627.09)	(1,590,596.81)	(1,142,409,740.85)
2066	6,034,969.21	38,347,498.11	(9,052,453.82)	(1,093,069,080.90)	(1,378,832.76)	(1,143,788,573.61)

AmerenUE
Comparison of Future Estimated Net Salvage Costs and Net Salvage Accrual
During the Period 2009 Through 2092 for Account 364, Poles & Fixtures
AmerenUE Proposed Net Salvage Accrual

Year (1)	Retirements (2)	Ending Balance (3)	Future Net Salvage Costs (4)	Cumulative Future Net Salvage Costs (5)	Net Salvage Accrual (6)	Cumulative Net Salvage Accrual (7)
2067	5,423,644.35	32,923,853.76	(8,135,466.53)	(1,101,204,547.43)	(1,187,855.86)	(1,144,976,429.47)
2068	4,846,837.54	28,077,016.22	(7,270,256.31)	(1,108,474,803.74)	(1,016,681.17)	(1,145,993,110.64)
2069	4,302,801.84	23,774,214.38	(6,454,202.76)	(1,114,929,006.50)	(864,187.18)	(1,146,857,297.82)
2070	3,795,015.34	19,979,199.04	(5,692,523.01)	(1,120,621,529.51)	(729,223.56)	(1,147,586,521.37)
2071	3,323,954.86	16,655,244.18	(4,985,932.29)	(1,125,607,461.80)	(610,574.05)	(1,148,197,095.43)
2072	2,890,851.29	13,764,392.89	(4,336,276.94)	(1,129,943,738.73)	(506,993.95)	(1,148,704,089.38)
2073	2,495,750.98	11,268,641.91	(3,743,626.47)	(1,133,687,365.20)	(417,217.25)	(1,149,121,306.62)
2074	2,135,774.65	9,132,867.26	(3,203,661.98)	(1,136,891,027.18)	(340,025.15)	(1,149,461,331.78)
2075	1,812,128.98	7,320,738.23	(2,718,193.47)	(1,139,609,220.65)	(274,226.76)	(1,149,735,558.54)
2076	1,520,944.55	5,799,793.73	(2,281,416.83)	(1,141,890,637.47)	(218,675.53)	(1,149,954,234.07)
2077	1,265,448.56	4,534,345.1[illegible]	(1,898,172.84)	(1,143,788,810.31)	(172,235.65)	(1,150,126,469.72)
2078	1,040,820.05	3,493,525.1[illegible]	(1,561,230.08)	(1,145,350,040.39)	(133,797.84)	(1,150,260,267.56)
2079	846,316.54	2,647,208.5[illegible]	(1,269,474.81)	(1,146,619,515.20)	(102,345.56)	(1,150,362,613.12)
2080	679,804.37	1,967,404.2[illegible]	(1,019,706.56)	(1,147,639,221.75)	(76,910.21)	(1,150,439,523.33)
2081	539,675.55	1,427,728.6[illegible]	(809,513.33)	(1,148,448,735.08)	(56,585.55)	(1,150,496,108.88)
2082	422,916.28	1,004,812.3[illegible]	(634,374.42)	(1,149,083,109.50)	(40,542.35)	(1,150,536,651.23)
2083	325,044.76	679,767.62	(487,567.14)	(1,149,570,676.64)	(28,076.33)	(1,150,564,727.56)
2084	243,586.64	436,180.9[illegible]	(365,379.96)	(1,149,936,056.60)	(18,599.14)	(1,150,583,326.71)
2085	174,914.74	261,266.2[illegible]	(262,372.11)	(1,150,198,428.71)	(11,624.12)	(1,150,594,950.83)
2086	118,902.35	142,363.8[illegible]	(178,353.53)	(1,150,376,782.23)	(6,727.17)	(1,150,601,678.00)
2087	74,317.68	68,046.2[illegible]	(111,476.52)	(1,150,488,258.75)	(3,506.84)	(1,150,605,184.83)
2088	41,242.13	26,804.0[illegible]	(61,863.20)	(1,150,550,121.95)	(1,580.84)	(1,150,606,765.67)
2089	19,096.50	7,707.53	(28,644.75)	(1,150,578,766.70)	(575.19)	(1,150,607,340.86)
2090	6,581.62	1,125.93	(9,872.43)	(1,150,588,639.13)	(147.23)	(1,150,607,488.09)
2091	1,114.23	11.73	(1,671.35)	(1,150,590,310.47)	(18.96)	(1,150,607,507.05)
2092	11.73	0.00	(17.60)	(1,150,590,328.07)	(0.20)	(1,150,607,507.25)

Notes:

Column 2 is derived from the survivor curve for Accoun 365.

Column 3 is equal to the prior year's ending balance les; the current year's retirements.

Column 4 is equal to 150% multiplied by Column 2.

Column 5 is the cumulative sum of Future Net Salvage Costs in Column 4.

Column 6 is equal to the net salvage accrual rate multiplied by the average plant balance for the year. The net salvage accrual rate is equal to the net salvage percent divided by the ave age service life. The average plant balance for the year is the average of the prior year's ending balance and the current year's ending balance.

Column 7 is the cumulative sum of the Net Salvage Accruals in Column 6. The first entry in column 7, or the Previous Theoretical Net Salvage Activity, is the net salvage portion of the thec etical reserve.

AmerenUE
Comparison of Future Estimated Net Salvage Costs and Net Salvage Accrual
During the Period 2009 Through 2106 for Account 365, Overhead Conductors & Devices
AmerenUE Proposed Net Salvage Accrual

Year	Retirements	Ending Balance	Future Net Salvage Costs	Cumulative Future Net Salvage Costs	Net Salvage Accrual	Cumulative Net Salvage Accrual
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Previous Theoretical Net Salvage Activity ------------------>						*(99,845,502.31)*
2009	8,605,176.63	847,720,093.3	(4,560,743.61)	(4,560,743.61)	(9,215,755.54)	(109,061,257.85)
2010	8,771,458.45	838,948,634.9	(4,648,872.98)	(9,209,616.59)	(9,121,779.86)	(118,183,037.71)
2011	8,937,517.66	830,011,117.2	(4,736,884.36)	(13,946,500.95)	(9,026,006.82)	(127,209,044.53)
2012	9,103,484.83	820,907,632.4	(4,824,846.96)	(18,771,347.91)	(8,928,438.14)	(136,137,482.67)
2013	9,269,259.71	811,638,372.7	(4,912,707.65)	(23,684,055.56)	(8,829,075.33)	(144,966,558.00)
2014	9,434,605.57	802,203,767.14	(5,000,340.95)	(28,684,396.51)	(8,727,921.78)	(153,694,479.78)
2015	9,599,409.48	792,604,357.6	(5,087,687.02)	(33,772,083.53)	(8,624,982.72)	(162,319,462.49)
2016	9,763,593.67	782,840,763.9	(5,174,704.65)	(38,946,788.18)	(8,520,264.43)	(170,839,726.93)
2017	9,927,099.42	772,913,664.5	(5,261,362.69)	(44,208,150.87)	(8,413,773.95)	(179,253,500.88)
2018	10,089,923.48	762,823,741.0	(5,347,659.44)	(49,555,810.32)	(8,305,518.62)	(187,559,019.50)
2019	10,251,908.04	752,571,833.0	(5,433,511.26)	(54,989,321.58)	(8,195,506.68)	(195,754,526.17)
2020	10,412,861.78	742,158,971.2	(5,518,816.74)	(60,508,138.32)	(8,083,748.23)	(203,838,274.40)
2021	10,572,719.98	731,586,251.2	(5,603,541.59)	(66,111,679.91)	(7,970,254.78)	(211,808,529.18)
2022	10,731,486.60	720,854,764.6	(5,687,687.90)	(71,799,367.81)	(7,855,038.15)	(219,663,567.33)
2023	10,889,135.38	709,965,629.3	(5,771,241.75)	(77,570,609.56)	(7,738,110.29)	(227,401,677.62)
2024	11,045,675.98	698,919,953.3	(5,854,208.27)	(83,424,817.83)	(7,619,483.25)	(235,021,160.87)
2025	11,200,942.86	687,719,010.4	(5,936,499.72)	(89,361,317.55)	(7,499,169.91)	(242,520,330.78)
2026	11,354,675.25	676,364,335.2	(6,017,977.88)	(95,379,295.43)	(7,377,185.44)	(249,897,516.22)
2027	11,506,549.46	664,857,785.7	(6,098,471.21)	(101,477,766.64)	(7,253,548.21)	(257,151,064.42)
2028	11,656,179.19	653,201,606.5	(6,177,774.97)	(107,655,541.61)	(7,128,280.39)	(264,279,344.81)
2029	11,803,143.69	641,398,462.8	(6,255,666.16)	(113,911,207.77)	(7,001,408.54)	(271,280,753.35)
2030	11,946,998.90	629,451,463.9	(6,331,909.42)	(120,243,117.19)	(6,872,963.89)	(278,153,717.24)
2031	12,087,178.13	617,364,285.8	(6,406,204.41)	(126,649,321.59)	(6,742,983.14)	(284,896,700.38)
2032	12,222,907.39	605,141,378.4	(6,478,140.92)	(133,127,462.51)	(6,611,510.23)	(291,508,210.60)
2033	12,353,703.63	592,787,674.8	(6,547,462.92)	(139,674,925.43)	(6,478,595.90)	(297,986,806.50)
2034	12,478,795.60	580,308,879.2	(6,613,761.67)	(146,288,687.10)	(6,344,297.69)	(304,331,104.19)
2035	12,597,805.30	567,711,073.9	(6,676,836.81)	(152,965,523.91)	(6,208,679.34)	(310,539,783.53)
2036	12,710,397.10	555,000,676.8	(6,736,510.46)	(159,702,034.37)	(6,071,808.45)	(316,611,591.98)
2037	12,816,107.63	542,184,569.2	(6,792,537.04)	(166,494,571.42)	(5,933,756.94)	(322,545,348.92)
2038	12,914,089.87	529,270,479.3	(6,844,467.63)	(173,339,039.05)	(5,794,603.83)	(328,339,952.76)
2039	13,003,756.28	516,266,723.0	(6,891,990.83)	(180,231,029.88)	(5,654,435.89)	(333,994,388.65)
2040	13,084,739.75	503,181,983.3	(6,934,912.07)	(187,165,941.95)	(5,513,345.04)	(339,507,733.69)
2041	13,156,493.04	490,025,490.2	(6,972,941.31)	(194,138,883.26)	(5,371,428.17)	(344,879,161.87)
2042	13,218,185.56	476,807,304.7	(7,005,638.35)	(201,144,521.60)	(5,228,789.61)	(350,107,951.47)
2043	13,269,209.55	463,538,095.1	(7,032,681.06)	(208,177,202.67)	(5,085,541.45)	(355,193,492.92)
2044	13,308,985.98	450,229,109.1	(7,053,762.57)	(215,230,965.23)	(4,941,802.23)	(360,135,295.15)
2045	13,337,011.34	436,892,097.8	(7,068,616.01)	(222,299,581.24)	(4,797,696.32)	(364,932,991.47)
2046	13,353,018.25	423,539,079.5	(7,077,099.67)	(229,376,680.92)	(4,653,352.29)	(369,586,343.76)
2047	13,357,016.42	410,182,063.1	(7,079,218.70)	(236,455,899.62)	(4,508,900.06)	(374,095,243.81)
2048	13,348,834.96	396,833,228.2	(7,074,882.53)	(243,530,782.15)	(4,364,470.45)	(378,459,714.27)
2049	13,328,035.18	383,505,193.0	(7,063,858.65)	(250,594,640.79)	(4,220,197.58)	(382,679,911.85)
2050	13,294,292.31	370,210,900.7	(7,045,974.92)	(257,640,615.72)	(4,076,219.69)	(386,756,131.54)
2051	13,246,997.69	356,963,903.02	(7,020,908.78)	(264,661,524.49)	(3,932,680.06)	(390,688,811.60)
2052	13,185,540.17	343,778,362.8	(6,988,336.29)	(271,649,860.78)	(3,789,728.58)	(394,478,540.18)
2053	13,109,738.23	330,668,624.6	(6,948,161.26)	(278,598,022.05)	(3,647,519.42)	(398,126,059.61)
2054	13,020,155.20	317,648,469.42	(6,900,682.26)	(285,498,704.30)	(3,506,204.69)	(401,632,264.30)
2055	12,917,199.60	304,731,269.82	(6,846,115.79)	(292,344,820.09)	(3,365,931.24)	(404,998,195.54)
2056	12,800,380.60	291,930,889.22	(6,784,201.72)	(299,129,021.81)	(3,226,846.37)	(408,225,041.91)
2057	12,669,191.51	279,261,697.7	(6,714,671.50)	(305,843,693.31)	(3,089,102.77)	(411,314,144.68)
2058	12,523,377.92	266,738,319.73	(6,637,390.30)	(312,481,083.61)	(2,952,857.24)	(414,267,001.91)
2059	12,362,691.82	254,375,627.9	(6,552,226.66)	(319,033,310.27)	(2,818,269.31)	(417,085,271.22)
2060	12,186,980.51	242,188,647.43	(6,459,099.67)	(325,492,409.94)	(2,685,500.67)	(419,770,771.90)
2061	11,996,190.49	230,192,456.9	(6,357,980.96)	(331,850,390.90)	(2,554,714.14)	(422,325,486.03)
2062	11,790,074.49	218,402,382.43	(6,248,739.48)	(338,099,130.38)	(2,426,074.13)	(424,751,560.16)
2063	11,568,876.29	206,833,506.13	(6,131,504.43)	(344,230,634.81)	(2,299,745.11)	(427,051,305.28)
2064	11,333,436.82	195,500,069.37	(6,006,721.51)	(350,237,356.33)	(2,175,885.66)	(429,227,190.94)
2065	11,084,597.54	184,415,471.83	(5,874,836.70)	(356,112,193.02)	(2,054,645.27)	(431,281,836.21)
2066	10,822,500.64	173,592,971.19	(5,735,925.34)	(361,848,118.36)	(1,936,168.11)	(433,218,004.32)

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Comparison of Future Estimated Net Salvage Costs and Net Salvage Accrual
During the Period 2009 Through 2106 for Account 365, Overhead Conductors & Devices
AmerenUE Proposed Net Salvage Accrual

Year	Retirements	Ending Balance	Future Net Salvage Costs	Cumulative Future Net Salvage Costs	Net Salvage Accrual	Cumulative Net Salvage Accrual
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2067	10,547,453.40	163,045,517.7[illegible]	(5,590,150.30)	(367,438,268.67)	(1,820,595.91)	(435,038,600.23)
2068	10,260,127.35	152,785,390.4[illegible]	(5,437,867.50)	(372,876,136.16)	(1,708,065.12)	(436,746,665.35)
2069	9,960,870.99	142,824,519.4[illegible]	(5,279,261.62)	(378,155,397.79)	(1,598,706.66)	(438,345,372.01)
2070	9,650,302.89	133,174,216.5[illegible]	(5,114,660.53)	(383,270,058.32)	(1,492,646.23)	(439,838,018.23)
2071	9,329,173.70	123,845,042.8[illegible]	(4,944,462.06)	(388,214,520.38)	(1,390,002.12)	(441,228,020.35)
2072	8,998,484.35	114,846,558.5[illegible]	(4,769,196.71)	(392,983,717.08)	(1,290,883.15)	(442,518,903.50)
2073	8,659,223.01	106,187,335.5[illegible]	(4,589,388.20)	(397,573,105.28)	(1,195,387.39)	(443,714,290.88)
2074	8,311,577.97	97,875,757.5[illegible]	(4,405,136.32)	(401,978,241.60)	(1,103,606.52)	(444,817,897.41)
2075	7,956,278.15	89,919,479.3[illegible]	(4,216,827.42)	(406,195,069.02)	(1,015,627.30)	(445,833,524.71)
2076	7,594,617.28	82,324,862.1[illegible]	(4,025,147.16)	(410,220,216.18)	(931,525.52)	(446,765,050.23)
2077	7,227,882.60	75,096,979.5[illegible]	(3,830,777.78)	(414,050,993.96)	(851,363.02)	(447,616,413.25)
2078	6,857,793.81	68,239,185.6[illegible]	(3,634,630.72)	(417,685,624.68)	(775,185.38)	(448,391,598.63)
2079	6,486,108.22	61,753,077.4[illegible]	(3,437,637.36)	(421,123,262.04)	(703,019.38)	(449,094,618.02)
2080	6,113,744.94	55,639,332.5[illegible]	(3,240,284.82)	(424,363,546.85)	(634,877.32)	(449,729,495.34)
2081	5,741,918.26	49,897,414.2[illegible]	(3,043,216.68)	(427,406,763.53)	(570,759.96)	(450,300,255.29)
2082	5,371,364.84	44,526,049.4[illegible]	(2,846,823.37)	(430,253,586.90)	(510,657.51)	(450,810,912.80)
2083	5,003,381.33	39,522,668.1[illegible]	(2,651,792.10)	(432,905,379.00)	(454,549.19)	(451,265,461.99)
2084	4,638,896.59	34,883,771.5[illegible]	(2,458,615.19)	(435,363,994.19)	(402,402.17)	(451,667,864.16)
2085	4,280,405.08	30,603,366.4[illegible]	(2,268,614.69)	(437,632,608.89)	(354,165.13)	(452,022,029.29)
2086	3,929,666.80	26,673,699.6[illegible]	(2,082,723.40)	(439,715,332.29)	(309,763.72)	(452,331,793.02)
2087	3,588,877.40	23,084,822.2[illegible]	(1,902,105.02)	(441,617,437.31)	(269,102.21)	(452,600,895.23)
2088	3,260,773.15	19,824,049.0[illegible]	(1,728,209.77)	(443,345,647.08)	(232,058.18)	(452,832,953.41)
2089	2,945,340.57	16,878,708.5[illegible]	(1,561,030.50)	(444,906,677.58)	(198,494.51)	(453,031,447.92)
2090	2,641,423.74	14,237,284.7[illegible]	(1,399,954.58)	(446,306,632.17)	(168,280.37)	(453,199,728.29)
2091	2,350,462.57	11,886,822.2[illegible]	(1,245,745.16)	(447,552,377.33)	(141,283.44)	(453,341,011.72)
2092	2,074,147.85	9,812,674.[illegible]5	(1,099,298.36)	(448,651,675.69)	(117,354.42)	(453,458,366.14)
2093	1,812,735.43	7,999,938.[illegible]2	(960,749.78)	(449,612,425.47)	(96,333.52)	(453,554,699.66)
2094	1,568,513.86	6,431,425.[illegible]3	(831,312.35)	(450,443,737.81)	(78,047.17)	(453,632,746.84)
2095	1,343,651.86	5,087,773.[illegible]	(712,135.49)	(451,155,873.30)	(62,297.70)	(453,695,044.54)
2096	1,139,742.23	3,948,030.[illegible]7	(604,063.38)	(451,759,936.68)	(48,867.10)	(453,743,911.65)
2097	955,353.53	2,992,677.4[illegible]	(506,337.37)	(452,266,274.05)	(37,536.48)	(453,781,448.13)
2098	788,744.29	2,203,933.[illegible]5	(418,034.47)	(452,684,308.53)	(28,104.12)	(453,809,552.25)
2099	639,910.22	1,564,022.[illegible]3	(339,152.42)	(453,023,460.94)	(20,377.72)	(453,829,929.97)
2100	508,143.15	1,055,879.[illegible]3	(269,315.87)	(453,292,776.81)	(14,168.86)	(453,844,098.83)
2101	391,813.24	664,066.[illegible]4	(207,661.02)	(453,500,437.83)	(9,301.75)	(453,853,400.58)
2102	286,771.31	377,295.[illegible]3	(151,988.79)	(453,652,426.62)	(5,631.85)	(453,859,032.44)
2103	193,611.67	183,683.[illegible]6	(102,614.19)	(453,755,040.81)	(3,033.86)	(453,862,066.30)
2104	114,006.64	69,676.[illegible]2	(60,423.52)	(453,815,464.33)	(1,370.21)	(453,863,436.52)
2105	54,742.94	14,933.[illegible]3	(29,013.76)	(453,844,478.09)	(457.59)	(453,863,894.11)
2106	14,933.98	(0.[illegible]0)	(7,915.01)	(453,852,393.09)	(80.77)	(453,863,974.87)

Notes:

Column 2 is derived from the survivor curve for Accour[illegible] 364.

Column 3 is equal to the prior year's ending balance le[illegible]s the current year's retirements.

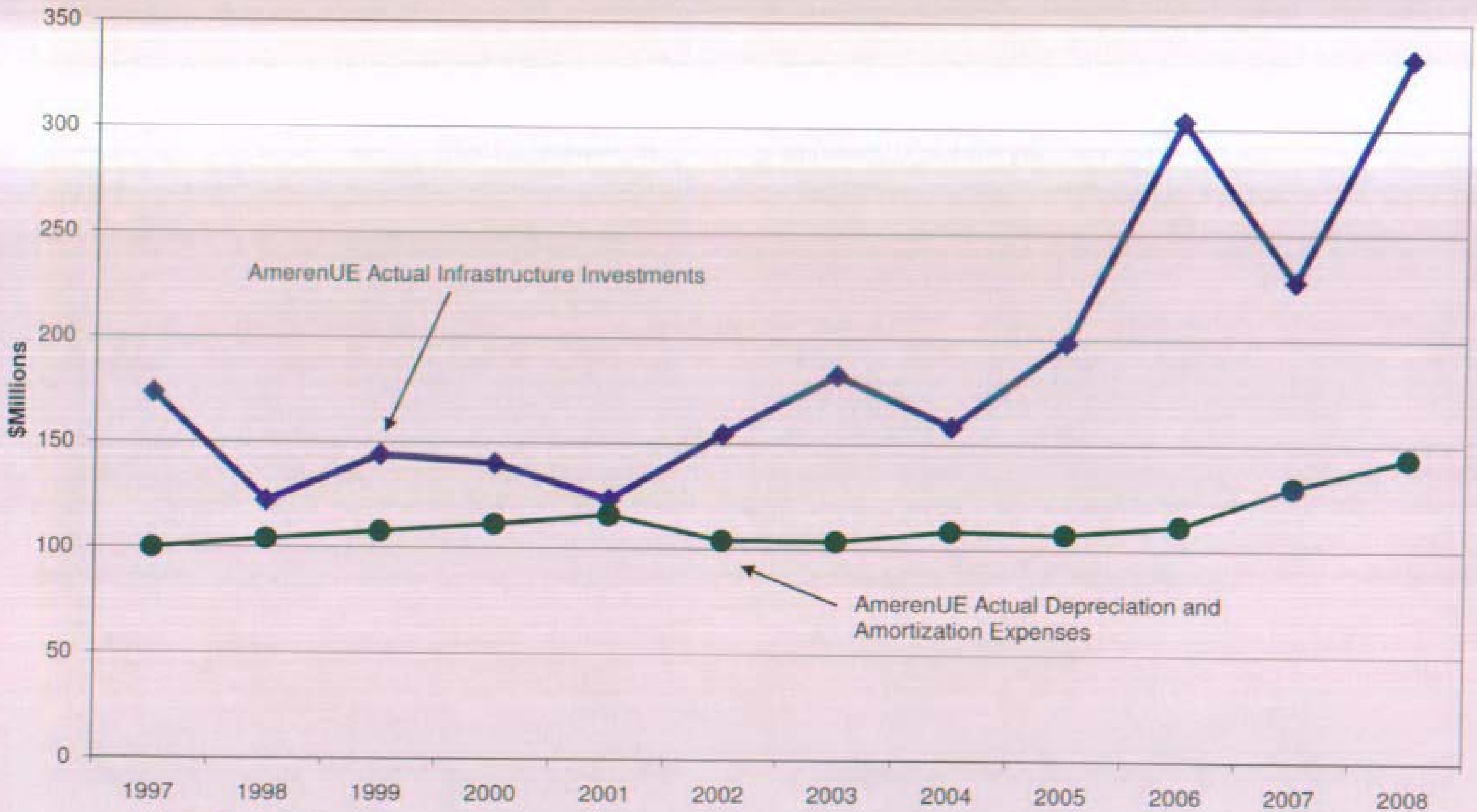
Column 4 is equal to 53% multiplied by Column 2.

Column 5 is the cumulative sum of Future Net Salvage [illegible]osts in Column 4.

Column 6 is equal to the net salvage accrual rate multi[illegible]ied by the average plant balance for the year. The net salvage accrual rate is equal to the net salvage percent divided by the av[illegible] age service life. The average plant balance for the year is the average of the prior year's ending balance and the current year's en[illegible]ng balance.

Column 7 is the cumulative sum of the Net Salvage Ac[illegible]ruals in Column 6. The first entry in column 7, or the Previous Theoretical Net Salvage Activity, is the net salvage portion of the the[illegible]etical reserve.

**AmerenUE Infrastructure Investment vs. Depreciation & Amortization Expense
Electric Transmission & Distribution Plant**



Sources and Notes:
Infrastructure Investments are per Additions on Page 206 of Form Ferc No. 1 and Salvage and Cost of Removal data per company records.
Depreciation and Amortization Expenses are per Page 336 of Form Ferc No. 1.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Tariff	)	<u>Case No. GR-99-315</u>
to Revise Natural Gas Rate Schedules.	)	

THIRD REPORT AND ORDER

Issue Date: January 11, 2005

Effective Date: January 21, 2005

APPENDIX A

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Tariff to Revise Natural Gas Rate Schedules.	))	**Case No. GR-99-315**

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APPEARANCES

Michael C. Pendergast, Vice President and Associate General Counsel, and **Rick Zucker**, Assistant General Counsel–Regulatory, Laclede Gas Company, 720 Olive Street, St. Louis, Missouri 63101, for Laclede Gas Company.

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and

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APPENDIX A

M. Ruth O'Neill, Senior Public Counsel, Office of the Public Counsel, 200 Madison Street, Suite 650, Post Office Box 2230, Jefferson City, Missouri 65102, for the Office of the Public Counsel and the public.

Thomas R. Schwarz, Jr., Deputy General Counsel, Missouri Public Service Commission, 200 Madison Street, Post Office Box 360, Jefferson City, Missouri 65102, for the Staff of the Missouri Public Service Commission.

REGULATORY LAW JUDGE: **Nancy Dippell, Senior Regulatory Law Judge.**

THIRD REPORT AND ORDER

Syllabus: This order finds that the accrual method should be used to calculate Laclede's net salvage value and that Laclede should establish a separate account on its books for tracking these expenditures and collections.

Overview

Because this order contains detailed findings spanning two hearings and almost six years, a summary will be helpful. The only issue remaining from Laclede's 1999 general rate case is the proper calculation of net salvage, and that is the only issue resolved herein. Unlike the first two Reports and Orders in this case, in this order the Commission finds that the evidence presented dictates a finding in favor of Laclede rather than in favor of Staff.

This order begins with a brief procedural history that explains the two appeals and the currently pending procedural matters. Next is the section detailing the Commission's findings of fact that support its ruling in favor of Laclede, followed by the conclusions of law in which the Commission applies the law to these findings.

Procedural History

Following decisions by the Circuit Court of Cole County and the Missouri Court of Appeals,[1] this matter now comes before the Commission on remand.

A Report and Order in this case was issued on December 14, 1999. An Order of Clarification was issued on December 21, 1999, and an Order Approving Tariffs was issued December 23, 1999. On December 1, 2000, the Circuit Court of Cole County remanded the case to the Commission for "findings of fact sufficient to support resolution of the net salvage issue."

The Commission issued its Second Report and Order on June 28, 2001. That order was appealed to the Circuit Court of Cole County and then to the Court of Appeals for the Western District of Missouri. On May 28, 2003, the Court of Appeals issued its Mandate to Cole County Circuit Court with directions to the Circuit Court to remand the decision. On May 30, 2003, the Circuit Court entered a docket entry stating that the case was remanded to the Commission "with instructions to provide clearer, more detailed findings of fact that include the rationale for the findings and comply with 386.420 and 536.090, RSMo 2000."

As a result of the remand by the Western District Court of Appeals, the Commission determined that this proceeding should be reopened to take further evidence on the issue of net salvage and depreciation. On September 22-24, 2004, a further hearing

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[1] State of Missouri ex rel. Laclede Gas Company And Union Electric Company d/b/a AmerenUE v. Public Service Commission, 103 S.W.3d 813 (Mo. App., W.D. 2003).

was held on the net salvage issue. All the parties were represented at the hearing. Briefs were filed on November 2, 2004.

Pending Motions

On May 14, 2004, after the Commission set this matter for further evidentiary hearing, Laclede filed a motion for reconsideration and an alternative recommendation that a generic case regarding depreciation be established. The parties jointly filed a proposed procedural schedule on June 14, 2004, in which Laclede requested that its pending motion for reconsideration and recommendation for a generic case be held in abeyance until after the completion of this proceeding. On that same date, Staff and Public Counsel filed responses to Laclede's motions suggesting that the motion for reconsideration be denied. Public Counsel also included a request that the Commission determine if the issue of net salvage is now moot given that Laclede has adopted new tariffs since this case was originally decided and would be unable to adjust its rates if the Commission finds in its favor.

On June 21, 2004, Laclede filed a reply to Staff and Public Counsel's responses. Laclede again reiterated that it had intended the Commission to hold its motions in abeyance if the Commission adopted a procedural schedule in this matter. The Commission adopted the parties' proposed procedural schedule on June 24, 2004, but indicated that it would address the pending motions in a separate order.

On July 29, 2004, the Commission directed the parties to file briefs on whether the issue in this case was moot. Those briefs were filed on August 18, 2004.

On August 25, 2004, Laclede and AmerenUE filed a response to the briefs of Staff and Public Counsel. On August 31, 2004, both Staff and Public Counsel filed motions requesting permission to be allowed to file responses to Laclede's brief one day out of time citing to Commission rule 4 CSR 240-2.080. Simultaneously with those motions, the Staff and Public Counsel filed their responses. On September 3, 2004, Laclede and AmerenUE objected to the motion, requested that Staff and Public Counsel's responses be stricken, and replied to those responses.

The Commission's rule 4 CSR 240-2.080(15) provides that "[p]arties shall be allowed not more than ten (10) days from the date of filing in which to respond to any pleading unless otherwise ordered by the commission." Rule 4 CSR 240-2.010(13) specifically excludes briefs from the definition of "pleading." Therefore, the Commission finds that rule 4 CSR 240-2.080(15) does not apply in this situation. Furthermore, neither Laclede nor AmerenUE were harmed by the additional filing and, in fact, had sufficient time to file yet another reply. The Commission will accept the filings, grant Staff and Public Counsel's motions, and deny Laclede's motion to strike.

On December 9, 2004, Laclede filed a Request Regarding Accounting Adjustment to Implement Depreciation Rates. On December 17, 2004, both Staff and Public Counsel filed motions to strike the pleading from consideration or, in the alternative, responses to the motion. In their motions, Staff and Public Counsel argue that Laclede should not be allowed to supplement its arguments after the close of the briefing schedule and in response to the Commission's deliberations.

The Commission has struggled with the timing of the remaining issues throughout the remanded portion of this case. While it is true that a proper request from Laclede would have included a request for leave to make such a filing, the Commission finds that neither Staff nor Public Counsel have alleged any harm from the pleading. And, in fact, the final arguments from both sides have helped to clarify the issue. Therefore, the Commission will grant Laclede leave to file its pleading and deny the motions to strike it from consideration.

Findings of Fact

The Missouri Public Service Commission, having considered all of the competent and substantial evidence upon the whole record, makes the following findings of fact. The positions and arguments of all of the parties have been considered by the Commission in making this decision. Failure to specifically address a piece of evidence, position or argument of any party does not indicate that the Commission has failed to consider relevant evidence, but indicates rather that the omitted material was not dispositive of this decision. The Commission adopts its previous Report and Order and Second Report and Order except as modified by these findings. The Commission notes that it may take notice of facts outside the record in determining mootness.[2]

The Commission finds that the gas service rates approved in Case No. GR-99-315 became effective on December 27, 1999.[3] Those rates remained in effect until December 1, 2001, when they were superseded by the gas service rates approved by the Commission in Case No. GR-2001-629.[4] Those rates remained effective until

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[2] State ex rel. Monsanto Co. v. Public Service Commission, 716 S.W.2d 791, 793 (Mo. banc 1986); State ex rel. Donnell v. Searcy, 347 Mo. 1052, 152 S.W.2d 8, 10 (Mo. banc 1941).

[3] Order Approving Tariff Sheets Filed in Compliance with Commission's Order, Case No. GR-99-315 (issued December 23, 1999).

[4] Order Approving Unanimous Stipulation and Agreement, etc., Case No. GR-2001-629, supra.

November 9, 2002, when they were superseded by the natural gas service rates set in Case No. GR-2002-356,[5] which rates are currently in effect.

In this Report and Order, the Commission cites primarily to the testimony from the following witnesses:[6]

Paul Adam, a Staff witness who testified at the first hearing in 1999;

Rosella Schad, a Staff witness who adopted Mr. Adam's testimony and testified at the second hearing in 2004;

William Stout, a Laclede witness who testified at the second hearing in 2004.

Throughout the two hearings held in this case, the parties have had a fundamental disagreement on the proper method for calculating net salvage costs when establishing depreciation rates. It is undisputed that the accrual method used by Laclede to determine the net salvage component of its depreciation rates has traditionally been used by both the Commission and the Company to establish the Company's depreciation rates.[7]

Because Laclede is the moving party in this case, as a utility requesting a rate increase, it has the ultimate burden of proof. However, as noted above, Staff is the party advocating a change in the depreciation method used not only by Laclede, but almost all utilities in the country. As a result, much of this order discusses support for Staff's challenge to what has been referred to as the standard method of calculating net salvage.

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[5] Order Approving Tariffs in Compliance with Commission Order, Case No. GR-2002-356 (issued November 8, 2002).

[6] The Commission also admitted into evidence and has considered testimony (or depositions in lieu of testimony) from several other witnesses, *e.g.*, Mark Oligschlaeger, a Staff witness; Steven Fetter, R. Lawrence Sherwin, Warner Baxter, and Barry Cooper, witnesses for Laclede and Ameren.

[7] Exh. No. 23, p. 4.

Under the accrual method, the depreciation rate for a particular asset or group of assets is calculated as follows:[8]

$$\textit{Depreciation Rate} = \frac{\textit{100\% -- \% Net Salvage}}{\textit{Average Service Life (years)}}$$

In this formula, net salvage equals the gross salvage value of the asset minus the cost of removing the asset from service.[9] 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.[10] The Commission finds that many natural gas assets will have a negative net salvage value and corresponding negative net salvage value percentage, since the cost of removing the asset from service frequently exceeds its gross salvage value.[11]

The accrual method has been used by Laclede and the Commission to determine Laclede's depreciation rates since at least the early 1950s.[12] It is undisputed that using the accrual method for this purpose is supported by the overwhelming weight of authority on such matters. In both evidentiary hearings, Laclede and AmerenUE provided evidence showing the widespread support among depreciation professionals and authoritative texts for the traditional, or accrual, method of treating net salvage.[13]

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[8] Exh. 23, p. 4.

[9] Id.

[10] Exh. 23, pp. 4-5.

[11] Exh. 23, p. 9; Schedule 1.

[12] Tr. 1733.

[13] Exh. 23, p.3; Exh. 25, pp. 4-6; Exh. 26, pp. 4-5; Exh. 136, p. 9.

Laclede and AmerenUE also established, and no party disputed, that such a method is consistent with the requirements of the Uniform System of Accounts that this Commission has adopted, and depreciation practices recognized and followed in all but a few regulatory jurisdictions in the United States.[14] In contrast, Staff was unable to cite any depreciation practitioner, outside of other Staff members, or any depreciation treatise that addressed its proposed treatment of net salvage. In addition, Staff was unable to adequately support or explain its reasoning for adopting this new approach.

During the first evidentiary hearing, Mr. Adam agreed that a proper goal of depreciation is to allocate the full cost of an asset, including its net salvage cost, over the useful life of the asset.[15] He did not, however, provide any evidence to demonstrate that this goal is not achieved by the accrual method traditionally used by the Commission and employed by Laclede in this case.

The Commission finds that the fundamental goal of depreciation accounting is to allocate the full cost of an asset, including its net salvage cost, over its economic or service life so that utility customers will be charged for the cost of the asset in proportion to the benefit they receive from its consumption.[16] The Commission further finds that the method utilized by Laclede is consistent with that fundamental goal.

In criticizing the accrual method for determining net salvage, Staff did show that Laclede is recovering more in depreciation for net salvage than it is currently spending.[17]

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[14] Exh. 26, pp. 2, 4-5, 13; Exh. 143, p. 7; Exh. 135, pp. 7-9; Exh. 143, pp. 6-7.

[15] Tr. 895-896.

[16] Exh. 23, p. 3; Exh. 25, p.7; Exh. 26, p. 4.

[17] Exh. No. 92, p. 7.

Ratepayers pay $2.3 million more in depreciation annually under the accrual method than under Staff's proposed expense method.

Laclede explained this result, however, with evidence showing a consistent and significant upward trend over time in both the installation cost of the plant used by Laclede to provide utility service, as well as in the cost to remove such plant from service.[18] In fact, just maintaining the net salvage percentage at its historical rate would result in a higher level of net salvage costs than that currently being realized by the Company, since it applies to an asset base that has grown and continues to grow over time. For example, the evidence shows that in 1950 Laclede's total plant in service was only 6 percent of what it is today.[19]

The Commission has also seen no evidence to suggest that the net salvage costs calculated under the accrual method are not sufficiently reliable. Laclede and AmerenUE pointed to evidence showing that estimates are frequently used in the ratemaking process for deriving returns on equity, allowable pension costs, nuclear decommissioning allowances, and the service lives over which the recovery of capital costs are spread.[20] Staff, on the other hand, provided no evidence to show that the net salvage estimates derived under the accrual method are any less reliable, known and measurable, or trustworthy than the estimates used in these other ratemaking calculations.[21]

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[18] Exh. 23, pp. 21-26; Exh. 25, p. 9; Tr. 841.

[19] Ex. 136, Schedule WMS-3-1.

[20] Tr. 1845-47; Exh. 136, p. 25; Exh. 137, p. 10.

[21] Tr. 2039-40; Exh. 157, p.103; Exh. 156, p. 60.

The estimates are derived through the use of estimating techniques that reflect the continuing impact of factors such as inflation that cause costs to rise. These estimates also reflect the growth in plant that has continued to occur over the last several decades. Two of the depreciation witnesses for Laclede used historical data to demonstrate that recognition of growth factors should continue into the future.[22] Moreover, both the rate of return witness for the Company and the rate of return witness for Staff presented evidence showing that some level of inflation can be expected to continue in the future.[23]

The Commission finds no substantive evidence showing that net salvage costs, as determined under the accrual method, have been calculated erroneously. Although Mr. Adam testified in his direct testimony that net salvage costs had been miscalculated, he later acknowledged in a data request response to the Company, as well as during cross-examination, that no such miscalculation had occurred.[24] Instead, Mr. Adam indicated that the difference between his net salvage calculation and that of the Company's was simply attributable to the fact that they were employing different methods to make that calculation.[25]

The Commission also notes that the use of estimating techniques is critical to determining the average service lives of a utility's assets under both the methods proposed in this case, to spread and defer the utility's recovery of current capital expenditures over

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[22] Tr. 841; Exh. 23, pp. 18-23; Exh. 25, p. 9, Schedule 1.

[23] See, Tr. 841; Exh. No. 2, pp. 4, 7, 10-11, 19-21, D-6, Schedule 8; Exh. No. 59, pp. 9-17, Schedules 4 and 7.

[24] Tr. 884-885.

[25] Id.

many years into the future.[26] Ms. Schad acknowledged that average service life estimates may vary, are dynamic, and depend on the judgment of the depreciation analyst, factors which all indicate that estimates of net salvage are no less reliable than the estimates of average service lives.[27]

The Commission finds that no evidence or satisfactory explanation exists as to why it is inappropriate or unreasonable to use estimates for purposes of determining net salvage costs, but is appropriate to use them for deriving equity returns, allowances for pension costs, decommissioning costs, and the service lives used to allocate the recovery of up-front capital expenditures over many years. Given these considerations, the Commission finds that Laclede's net salvage estimates as derived under the accrual method are reasonable.

The Commission is also not persuaded that the method proposed by Staff will resolve an intergenerational problem. Although Mr. Adam initially testified that his method would address an intergenerational problem, he later conceded on cross-examination that he wished he had not made that claim.[28] In fact, Mr. Adam acknowledged on cross-examination that to address any intergenerational problem, customers benefiting from the use of an asset should pay for its costs of removal during the service life of the asset, not after it is retired from service.[29] Since it is clear from the evidence in this case

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[26] Tr. 841; Exh. 23, pp. 8-10.

[27] Tr. pp. 1549–1550.

[28] Tr. 896.

[29] Id.

that the accrual method comes closer to matching the costs to the benefits derived,[30] the Commission finds that intergenerational equity will be promoted by the continued use of the accrual method.

Laclede's evidence shows that because the accrual method incorporates net salvage costs as a part of the depreciation rate, any difference between actual and estimated net salvage costs will be reflected in adjustments to the depreciation reserve.[31] The depreciation reserve, in turn, acts as a kind of balancing account that tracks over- and underaccruals of net salvage costs. In this way, the depreciation rates can be subsequently adjusted to ensure that the utility will not over- or undercollect such costs and that the ratepayer will not over- or underpay for such costs.[32] The Commission's rule requiring the submission of depreciation studies no less frequently than every five years provides a mechanism for monitoring the depreciation reserve so that this balancing can occur. At no point did the Staff dispute the fact that the accrual method operates in this manner.

The evidence also showed that any temporary difference between estimated and actual net salvage costs is reflected in the depreciation reserve that, in turn, is deducted from the utility's rate base pursuant to standard Commission practice.[33] As a result, ratepayers are compensated at the utility's overall rate of return for the "use" of their money during those times when the utility's outlays for net salvage are less than what has been

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[30] Exh. No. 25, pp. 6-8.

[31] Exh. 138, p. 19.

[32] Exh. 138, pp. 19-20.

[33] Exh. 138, p. 21.

included in depreciation rates.[34] In contrast, in the Staff's expense method, any difference between its estimates of net salvage costs and actual net salvage costs are either absorbed by the utility or borne by the customer.[35]

The Commission also finds that Staff's method significantly decreases the cash flows available to utilities to meet their infrastructure and other public service obligations.[36] This, in turn, has a negative financial impact on both the utility and its customers by requiring that such obligations be met with more expensive sources of external financings and by driving up the cost generally of obtaining money in the capital markets.[37] The Commission finds that Staff has not shown that the adoption of its method would justify these increased costs for utility consumers.

Finally, the Commission is concerned about making such a significant change in its policies based on the lack of clear reasoning presented by Staff. The Commission notes that Mr. Adam's proposal was not reviewed by other Staff members prior to being filed, and that the workpapers supporting Staff's proposed method were never included with Mr. Adam's prefiled testimony, but were only offered into the record upon conclusion of Mr. Adam's cross-examination.[38] It is also clear from the discussion of those workpapers that Mr. Adam adopted his method by simply scratching out the salvage values he had calculated using the accrual methodology and substituting instead lower net salvage

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[34] Id.

[35] Exh. 138, p. 21.

[36] Exh. 134, pp. 8-10.

[37] Exh. 134, p. 9.

[38] Tr. 929.

values, based on apparently nothing more than his realization that his original set of values yielded higher dollars in net salvage accruals to the Company than those actually incurred by the Company in recent periods.[39] Although given the opportunity after the record was reopened, Staff did not present additional evidence sufficient to support its position. These factors lead the Commission to find that Staff has not supported and explained its proposed method with the degree of thoroughness necessary to justify a significant departure from the Commission's traditional policy in this area.

The Commission is also concerned about whether the "safeguards" are sufficient to protect ratepayers from overcollection. Mr. Stout testified that the accrual approach would create a depreciation reserve substantially larger than the annual net salvage costs of recent retirements.[40] Mr. Stout further testified that these amounts would meet around the year 2020 and that the "safeguards" will correct it.[41] To ensure that ratepayers are protected, the Commission shall adopt a portion of the additional recommendation that Staff proposed.

The Commission finds that Laclede should not be required to segregate the net salvage amounts collected in rates from other corporate funds.[42] The Commission is persuaded that such a requirement is unnecessary given the absence of any evidence showing that utilities have ever failed to pay for such costs when they arose, the existence of other financial protections, including those imposed in connection with Laclede's

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[39] Tr. 889-892; Exh. No. 124.

[40] Tr. 1425-26.

[41] Id.

[42] Exh. 142, pp. 12-13.

financing authorizations, and the fact that other costs that have been precollected in rates have not required such a safeguard.[43] The Commission also finds that such a requirement would be unwise, because it would tend to increase costs for utility customers by providing less compensation to consumers for the use of their money than does the accrual method.[44]

Laclede agreed, however, to accept that portion of Staff's proposal that would require the utility to track and account for net salvage amounts received in rates separately from other components of depreciation expense. The Commission finds such an additional requirement would be reasonable to protect the ratepayers.

Summary

In view of this evidence, the Commission finds that Laclede has shown the accrual method to be just and reasonable and that Staff has failed to show that the Commission should adopt Staff's method of accounting for net salvage. The Commission wants to ensure that the method for tracking these expenditures and collections is clear and that the ratepayers do not overpay for net salvage costs. Therefore, the Commission will require a separate accounting for the net salvage in the depreciation reserve.

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[43] Exh. 150; p. 3 of Staff's Memorandum, Condition 6; Exh. 147, p. 114; Exh. 157, pp. 92-93; Tr. 1854-55, 1872-75.

[44] Exh. 157, pp. 71-72.

Conclusions of Law

The Missouri Public Service Commission has arrived at the following conclusions of law.

Jurisdiction:

Laclede Gas Company is a public utility engaged in the provision of natural gas service to the general public in the state of Missouri and, as such, is subject to the general jurisdiction of the Missouri Public Service Commission under Chapters 386 and 393, RSMo 2000. The Commission also has the authority to prohibit implementation of gas service rates that are unjust or unreasonable rates.[45]

Burden of Proof:

The burden of proof to show that a proposed tariff is just and reasonable is upon the utility.[46] Orders of the Commission must be based on substantial and competent evidence, taken on the record as a whole, and must be reasonable and not arbitrary, capricious, or contrary to law.[47] Based upon its findings of fact, the Commission concludes that Laclede has met its burden of showing that its method of calculating net salvage depreciation value is just and reasonable. The Commission further finds that its Staff did not clearly articulate any convincing reason to deviate from this method of accounting. The Commission concludes that Laclede Gas Company's depreciation calculation for net salvage value should be made in accordance with Laclede's depreciation method.

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[45] Section 393.130, RSMo 2000.

[46] Section 393.150.2, RSMo 2000.

[47] Section 536.140, RSMo 2000.

Therefore, Laclede shall make the necessary adjustments to its depreciation reserve to account for the accrual method.

Mootness:

A case is moot when a tribunal's decision would not have any practical effect upon any live controversy.[48] Where an event occurs that makes granting effectual relief impossible, the case is moot and generally should be dismissed.[49] This rule applies to contested cases before administrative agencies just as it applies to courts. With respect to utility matters, the general rule is that "issues under old, superseded tariffs are moot and therefore not subject to consideration."[50]

The sole issue in this case is whether Staff's or Laclede's method for setting the net salvage value of Laclede's assets for the purpose of ratemaking should be accepted. Originally, the Commission determined that Staff's method of calculation was appropriate. Laclede and AmerenUE appealed this decision.

As noted, new tariffs setting rates became effective on December 1, 2001, and November 9, 2002. Those tariffs provided for rate increases, thus affording prospective relief to Laclede. As Laclede concedes, there is no lawful possibility of any additional moneys to be paid by Laclede's ratepayers under the tariffs in effect from December 27, 1999, to December 1, 2001, just as there would be no lawful way to refund moneys

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48 State ex rel. Reed v. Reardon, 41 S.W.3d 470, 473 (Mo. banc 2001).

49 Id.; and see Armstrong v. Elmore, 990 S.W.2d 62, 64 (Mo. App., W.D. 1999).

50 St. ex rel. Missouri Public Service Co. v. Fraas, 627 S.W.2d 882, 885 (Mo. App., W.D. 1981).

overpaid by Laclede's ratepayers.[51] The revenue produced by the effective rates was paid directly to Laclede, unconditionally, pursuant to tariffs approved by the Commission. This revenue became the property of Laclede and no part of it can lawfully be refunded or returned to the ratepayers, nor can additional rates now be collected.

Laclede and AmerenUE argue, and Staff agrees,[52] that the Commission could order different net salvage depreciation rates for the time period in which those rates were in effect. This would allow Laclede to adjust those depreciation reserves upward and adjust its income downward for that period. Thus, Laclede's depreciation reserve accounts would be increased for future ratemaking periods and some practical relief could be awarded to Laclede.

Accounting Adjustments:

Because this case has been in an appeal status for over five years, to alter the depreciation rates by simply adjusting the depreciation rates would effectively hurt Laclede financially. This is because Laclede would have to show decreased net income for the period as a result of increased depreciation expenses. Laclede requests that the Commission require it to make the immediate change in its depreciation rates but to "also order that Laclede make a corresponding accounting adjustment to decrease the amount that Laclede currently books to net salvage expense."[53] Laclede makes this suggestion to keep from booking the net salvage expense twice, once to depreciation expense and once to net salvage expense, thus decreasing Laclede's net income.

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[51] State ex re. Utility Consumers' Council of Missouri v. Public Service Commission, 585 S.W.2d 41.

[52] Staff's Brief on Mootness, filed August 18, 2004, p. 2.

[53] Request Regarding Accounting Adjustment to Implement Depreciation Rates, (filed December 9, 2004), para. 3.

The Commission has previously found that the net salvage expense is valued at $2.3 million annually.[54] The Commission determines that Laclede shall increase its depreciation rates to generate an amount of additional depreciation expense equal to $2.3 million annually, with a corresponding credit to the depreciation reserve account. The Commission also determines that in order to make this return to the accrual accounting method after the company has been booking rates following Staff's expense method while this case was on appeal, it is just and reasonable to require Laclede to reduce its net salvage expense by an amount equal to the additional depreciation expense generated by the increases in depreciation rates and a corresponding debit to the depreciation reserve account.

The Commission also concludes that in order to ensure the accurate tracking of net salvage accounts, Laclede shall keep a separate accounting of the amounts accrued for recovery of its initial investment in plant from the amounts accrued for the cost of removal, as recommended by Staff.

IT IS THEREFORE ORDERED:

1. That Staff of the Missouri Public Service Commission and the Office of the Public Counsel's motion to file replies to Laclede and AmerenUE's briefs are granted.

2. That Laclede Gas Company is granted leave to file its December 9, 2004 pleading and the motions to strike that pleading are denied.

3. That the Report and Order issued on December 14, 1999, and the Second Report and Order issued on June 28, 2001, are readopted by the Commission except as

[54] Ex. 23, page 7; Tr. 1279-80.

modified by the additional findings of fact and conclusions of law set out in this Third Report and Order.

4. That the calculation of net salvage value for the determination of depreciation rates shall be done in accordance with Laclede Gas Company's recommendations.

5. That Laclede Gas Company shall increase its depreciation rates and booked depreciation expense by $2.3 million annually, with a corresponding credit to the depreciation reserve accounts, and a decrease to its net salvage expenses by an amount equal to the additional depreciation expense generated by the increases in the depreciation rates, with a corresponding debit to the depreciation reserve.

6. That Laclede Gas Company shall keep a separate accounting of its amounts accrued for recovery of its initial investment in plant from the amounts accrued for the cost of removal.

7. That this Third Report and Order shall become effective on January 21, 2005.

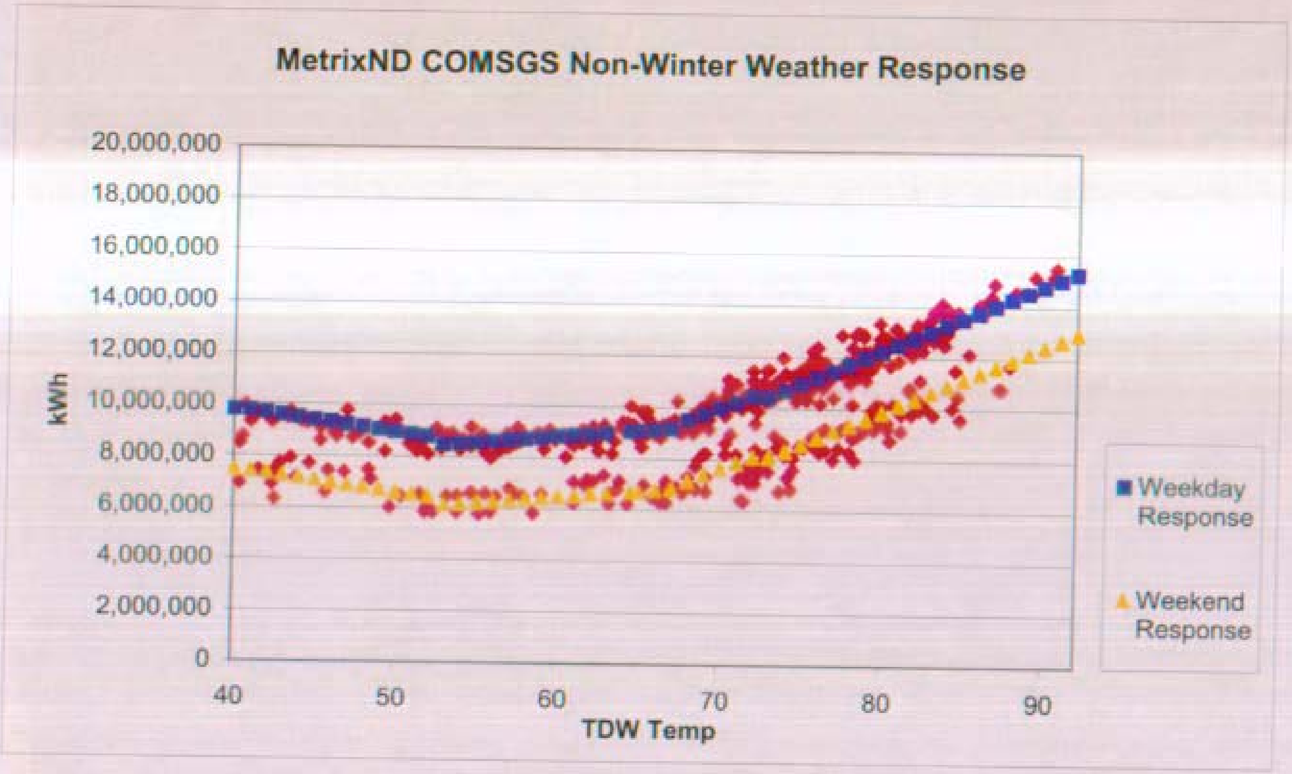
BY THE COMMISSION

(S E A L)

Dale Hardy Roberts
Secretary/Chief Regulatory Law Judge

Davis, Ch., Murray and Appling, CC., concur;
Gaw, C., dissents;
Clayton, C., dissents, with dissenting opinion to follow;
and certify compliance with Section 536.080, RSMo 2000.

Dated at Jefferson City, Missouri,
on this 11th day of January, 2005.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