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Ameren – Exhibit 43
John Spanos
Rebuttal Testimony
File No. ER-2022-0337

Exhibit No.: _____
Issue: Depreciation; Continuing Plant Inventory Record
Witness: John J. Spanos
Sponsoring Party: Ameren Missouri
File No.: ER-2022-0337

MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. ER-2022-0337

REBUTTAL TESTIMONY OF

JOHN J. SPANOS

ON BEHALF OF

AMEREN MISSOURI

Camp Hill, Pennsylvania

February 15, 2023

JOHN J. SPANOS REBUTTAL

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1 **I. INTRODUCTION AND PURPOSE**

2 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

3 A. My name is John J. Spanos. My business address is 207 Senate Avenue, Camp Hill,
4 Pennsylvania.

5 **Q. ARE YOU THE SAME JOHN J. SPANOS WHO PREFILED DIRECT**
6 **TESTIMONY IN THIS MATTER?**

7 A. Yes.

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

9 A. The purpose of my testimony is to rebut the testimony filed by Missouri Public Service
10 Commission Staff (“Staff”) witness Cedric E. Cunigan related to depreciation. I also
11 address witness Cunigan's discussion of the Company's Continuing Plant Inventory
12 Record ("CPR").

13 **Q. WHAT IS THE SUBJECT OF YOUR REBUTTAL TESTIMONY?**

14 A. The primary subject of my testimony is depreciation and, as noted, the related subject
15 of the Company's CPR. Specifically, I will address Staff’s adjustments to my
16 proposed service lives; the proper recovery for Account 370, Meters; errors in the
17 Staff’s calculation of depreciation for a few accounts related to the inadvertent use of
18 the wrong book reserve; the need to reflect remaining life rates for transmission,
19 distribution and certain general plant accounts; the proper calculations for general
20 plant amortization accounts; and a reasonable accounting approach for recording
21 retirement ages.

1 **II. STAFF’S SERVICE LIFE ESTIMATE DIFFERENCES**

2 **Q. WHAT DOES STAFF RECOMMEND?**

3 A. Staff recommends different service lives for 5 plant accounts from what was proposed
4 by the Company. Staff is also recommending a depreciation rate for Account 370.00,
5 Meters, that has been calculated without all the important life components.

6 **Q. WHAT ADJUSTMENTS TO THE COMPANY'S PROPOSED SERVICE**
7 **LIVES IS STAFF PROPOSING?**

8 A. Staff is proposing service life estimates for 5 plant accounts, which either change the
9 average service life or the survivor curve type. Table 1 below shows the estimates
10 that were proposed by the Company based on my Depreciation Study as well as the
11 estimates proposed by witness Cunigan.

12 **Table 1. Comparison of Survivor Curves between the Company and Staff**

ACCOUNT	COMPANY PROPOSED Life/Survivor Curve	STAFF PROPOSED Life/Survivor Curve
316.00, Miscellaneous Power Plant Equipment	40-L0.5	40-L0
346.00, Miscellaneous Power Plan Equipment	28-S1	27-L2
356.00, Overhead Conductors and Devices	65-R3	75-R3
364.00, Poles and Fixtures	54-S1.5	58-L2.5
373.00, Street Lighting and Signal Systems	38-S0	40-O1

13 **Q. HAS STAFF PROVIDED ANY EXPLANATION FOR ADJUSTING THE**
14 **SERVICE LIVES FROM WHAT THE COMPANY PROPOSED?**

15 A. No. Staff simply states that, “Staff matches an appropriate Iowa curve to the stub
16 curve data. Curves are fitted using a mixture of mathematical and visual fitting

1 practices. Once a curve is chosen, Staff has an estimate of the average service life.”¹

2 There were over 70 plant accounts or subaccounts for which Staff agreed with the
3 service life estimates made by the Company in the Depreciation Study and there is no
4 explanation as to why Staff disagreed with the estimates made by the Company for
5 the 5 accounts shown in Table 1 above.

6 **Q. DO YOU AGREE WITH THE LIFE ESTIMATE DIFFERENCES STAFF HAS**
7 **PROPOSED AS SET FORTH IN TABLE 1 ABOVE?**

8 A. No. Without any explanation as to why Staff chose different service life estimates
9 than what was estimated in the Depreciation Study, it is hard to discern Staff’s thought
10 process on its proposed service lives. However, the two estimate changes Staff
11 proposed for interim survivor curves for Accounts 316 and 346 do not substantially
12 differ from the life characteristics of the interim survivor curves proposed by the
13 Company. For the three other accounts, Staff’s estimates appear to reflect too much
14 emphasis on only a few age intervals of the entire life cycle for an account, which is
15 not representative of the entire account. Staff does not appear to be fitting its survivor
16 curve estimates both mathematically and visually as described for these accounts and
17 more importantly seems to disregard the most significant portion of the curve. In
18 most cases, the earlier portions of the curve are more representative of service life
19 expectations than other portions of the original curve.

20 **Q. WHAT IS THE MAIN ISSUE WITH THE SURVIVOR CURVE ESTIMATES**
21 **PROPOSED BY STAFF?**

¹ Cunigan Direct Testimony, pg. 8, 8-10.

1 A. Staff's proposed survivor curves for the one transmission account and two distribution
2 accounts do not fit the original data curve particularly well in most cases, nor do they
3 align with the more representative portions of the original data curves. For the primary
4 three accounts, when making an estimate Staff has chosen to place emphasis on the
5 assets surviving at less significant ages of the life cycle. These data points reflect ages
6 at which the assets exposed to retirement, as well as the recorded retirements, are
7 nominal and not always representative of the overall account.

8 **Q. DO ANY DEPRECIATION AUTHORITIES SUPPORT THAT THE**
9 **ESTIMATION OF SERVICE LIVES SHOULD BE BASED ON MORE THAN**
10 **MATHEMATICAL RESULTS AND THAT THE CURVE SHOULD MATCH**
11 **THE UTILIZATION OF THE ASSETS?**

12 A. Yes. For example, NARUC makes clear that factors other than the statistical analysis
13 must be considered. Chapter XIII of *Public Utility Depreciation Practices*, entitled
14 "Actuarial Life Analysis" discusses and emphasizes the subjective nature of the
15 process of estimating service lives. NARUC starts this chapter by explaining that the
16 analysis of historical data is only one part of the process of estimating service lives:

17 Actuarial analysis objectively measures how the company has retired
18 its investment. The analyst must then judge whether this historical
19 view depicts the future life of the property in service. The analyst takes
20 into consideration various factors, such as changes in technology,
21 services provided, or capital budgets.²

22 NARUC makes clear that the process of estimating service lives must go beyond any
23 objective measurement of the past. In describing the determination of a survivor curve

2 National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices*, 1996, p. 111.

1 estimate (referred to as the “projection life” in this passage), NARUC states:

2 The projection life is a projection, or forecast, of the future of the
3 property. Historical indications may be useful in estimating a
4 projection life curve. Certainly the observations based on the
5 property’s history are a starting point. Trends in life or retirement
6 dispersion can often be expected to continue. Likewise, unless there is
7 some reason to expect otherwise, stability in life or retirement
8 dispersion can be expected to continue, at least in the near term.

9 Depreciation analysts should avoid becoming ensnared in the
10 mechanics of the historical life study and relying solely on
11 mathematical solutions. The reason for making an historical life
12 analysis is to develop a sufficient understanding of history in order to
13 evaluate whether it is a reasonable predictor of the future. The
14 importance of being aware of circumstances having direct bearing on
15 the reason for making an historical life analysis cannot be understated.
16 These circumstances, when factored into the analysis, determine the
17 application and limitations of an historical life analysis.³

18 Thus, NARUC strongly advises against the approach apparently used by Staff, clearly
19 stating that “relying solely on mathematical solutions” should be avoided. NARUC
20 further elaborates on the need for a subjective component to forecasting service lives:

21 A depreciation study is commonly described as having three periods of
22 analysis: the past, present, and future. The past and present can usually
23 be analyzed with great accuracy using many currently available
24 analytical tools. The future still must be predicted and must largely
25 include some subjective analysis. Informed judgment is a term used to
26 define the subjective portion of the depreciation study process. It is
27 based on a combination of general experience, knowledge of the
28 properties and a physical inspection, information gathered throughout
29 the industry, and other factors which assist the analyst in making a
30 knowledgeable estimate.

31 The use of informed judgment can be a major factor in forecasting. A
32 logical process of examining and prioritizing the usefulness of
33 information must be employed, since there are many sources of data
34 that must be considered and weighed by importance. For example, the
35 following forces of retirement need to be considered: Do the past and
36 current service life dispersions represent the future? Will scrap prices

3 National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices*, 1996, p. 126. Emphasis added.

1 rise or fall? What will be the impact of future technological
2 obsolescence? Will the company be in existence in the future? The
3 analyst must rank the factors and decide the relative weight to apply to
4 each. The final estimate might not resemble any one of the specific
5 factors; however, the result would be a decision based upon a
6 combination of the components.⁴

7 **Q. HAVE YOU INCORPORATED THE VARIOUS FACTORS DISCUSSED BY**
8 **NARUC INTO YOUR ESTIMATES?**

9 A. Yes. I have conducted site visits for this and prior studies as well as engaged in
10 discussions with Company personnel to familiarize myself with the Company's assets
11 and plans for the assets. In addition, throughout my career, I have performed hundreds
12 of depreciation studies for numerous utilities. The information obtained from this
13 experience has also been incorporated into my recommendations.

14 **Q. CAN YOU PLEASE PROVIDE EXAMPLES OF THIS ISSUE?**

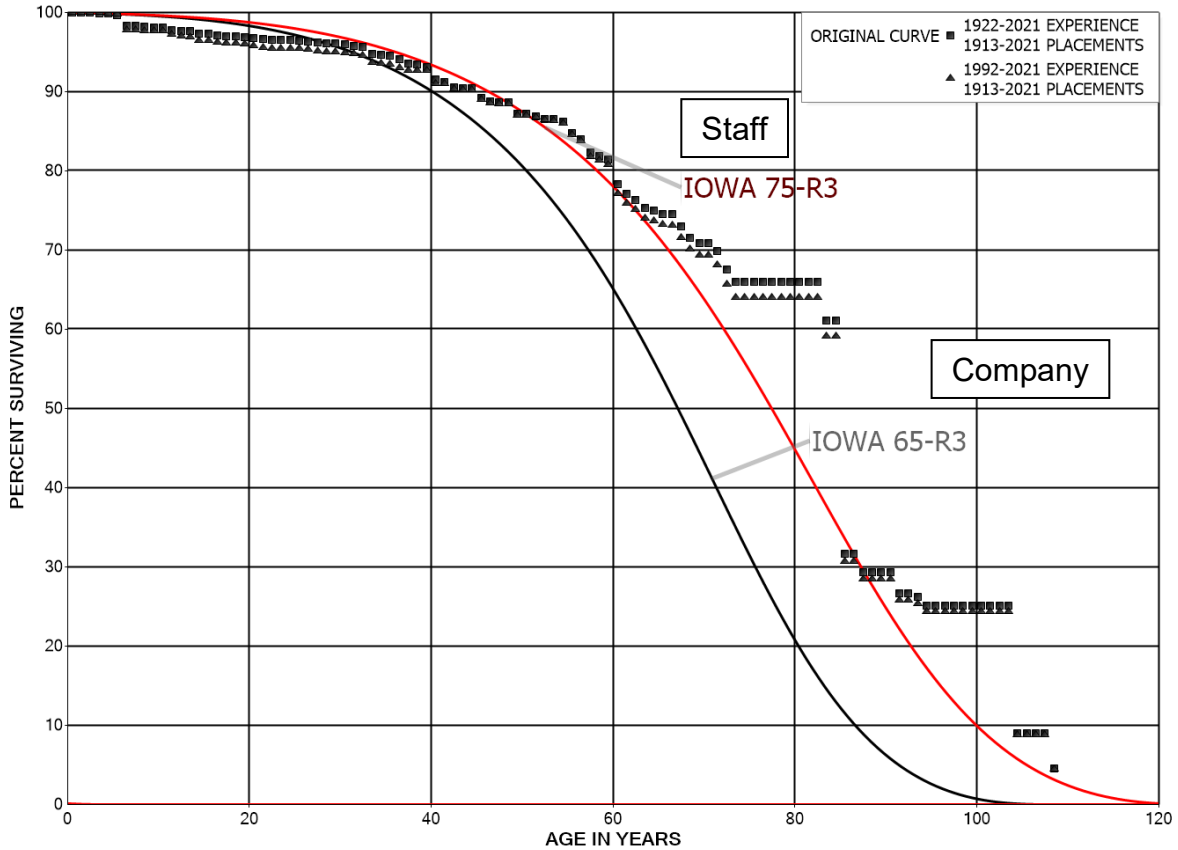
15 A. Yes. In Figure 1 below there is a comparison of the Company proposed survivor curve
16 in black (65-R3) along with the Staff proposed survivor curve in red (75-R3). As
17 shown in Figure 1, the Company survivor curve fits better in the early ages and the
18 Staff curve fits better in the later vintages. However, the Staff curve does not
19 accurately represent the life characteristics of transmission overhead conductor and
20 devices into the future. It is not realistic to expect the current overhead conductor to
21 last on average 75 years and a maximum of 120 years. There are too many forces of
22 retirement that do not support this life expectancy. The key drivers of future
23 retirements will be related to the need to provide reliable service and meet load
24 demands. This means that it is not realistic for the recovery of almost 80% of

4 National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices*, 1996, p. 128. Emphasis added.

1 conductor placed in service to last 60 years before needing to be replaced. It should
2 also not be expected that almost half the overhead conductor in service will last 80
3 years. The 65-R3 survivor curve reflects a more reasonable expectation of overhead
4 conductor that is in service or planned to be installed by reflecting an average life of
5 65 years, a maximum life slightly more than 100 years and an expectation that 20%
6 will stay reliable for 80 years. The life characteristics of the 65-R3 survivor curve is
7 more comparable to other electric utilities and includes the needed informed judgment
8 when considering overall utilization of the assets.

9

1 **Figure 1: Comparison of Company and Staff Proposed Survivor Curves for Account**
 2 **356.00 Overhead Conductors and Devices**

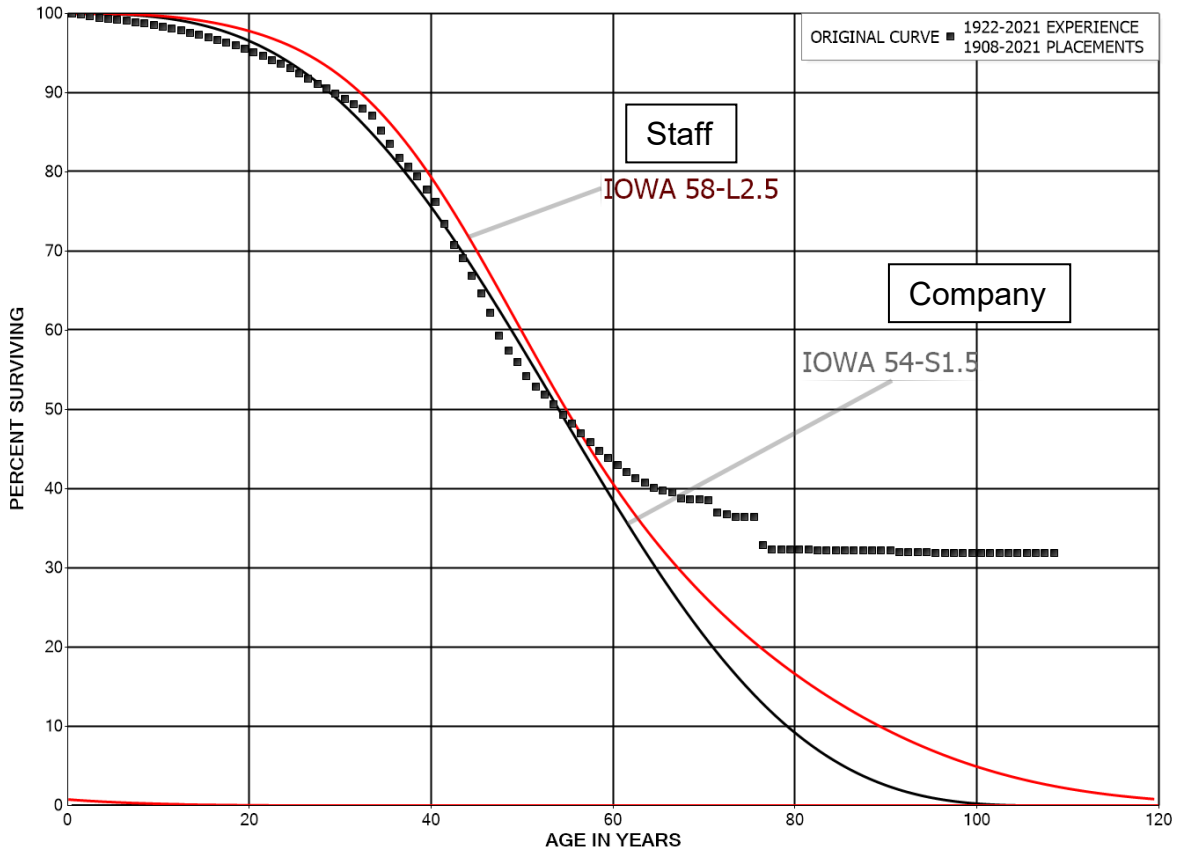


3
 4 **Q. ARE THERE OTHER EXAMPLES OF THIS DISCREPANCY IN HOW**
 5 **STAFF'S ESTIMATES FIT THE HISTORICAL DATA?**

6 A. Yes. There are examples for each account about which Staff disagrees with the
 7 Company's recommendation. One other particularly striking example is on Figure 2
 8 below and concerns Account 364.00, Poles and Fixtures. The comparison of the
 9 Company's estimate and Staff's estimate shows that the Company's survivor curve
 10 estimate (54-S1.5) is a very good fit of the data through age 62. At this point of the
 11 original data curve, the data begins to tail off and the exposures at this age are
 12 approaching 0% of the age 0 exposures--meaning the plant exposed to retirement at
 13 this age is drastically less than the plant that was exposed to retirement at earlier ages.

1 The 58-L2.5 proposed by Staff is not a very good fit of the data through any particular
 2 age, but after age 58 Staff's survivor curve does anticipate fewer retirements than the
 3 54-S1.5 curve. After age 60 there is less than 1% of plant exposed to retirement as
 4 compared to age 0. This means the data at that point is not very reliable and
 5 significantly less reliable than the data from earlier ages.

6 **Figure 2: Comparison of Company and Staff Proposed Survivor Curves for Account**
 7 **364.00 Poles and Fixtures**



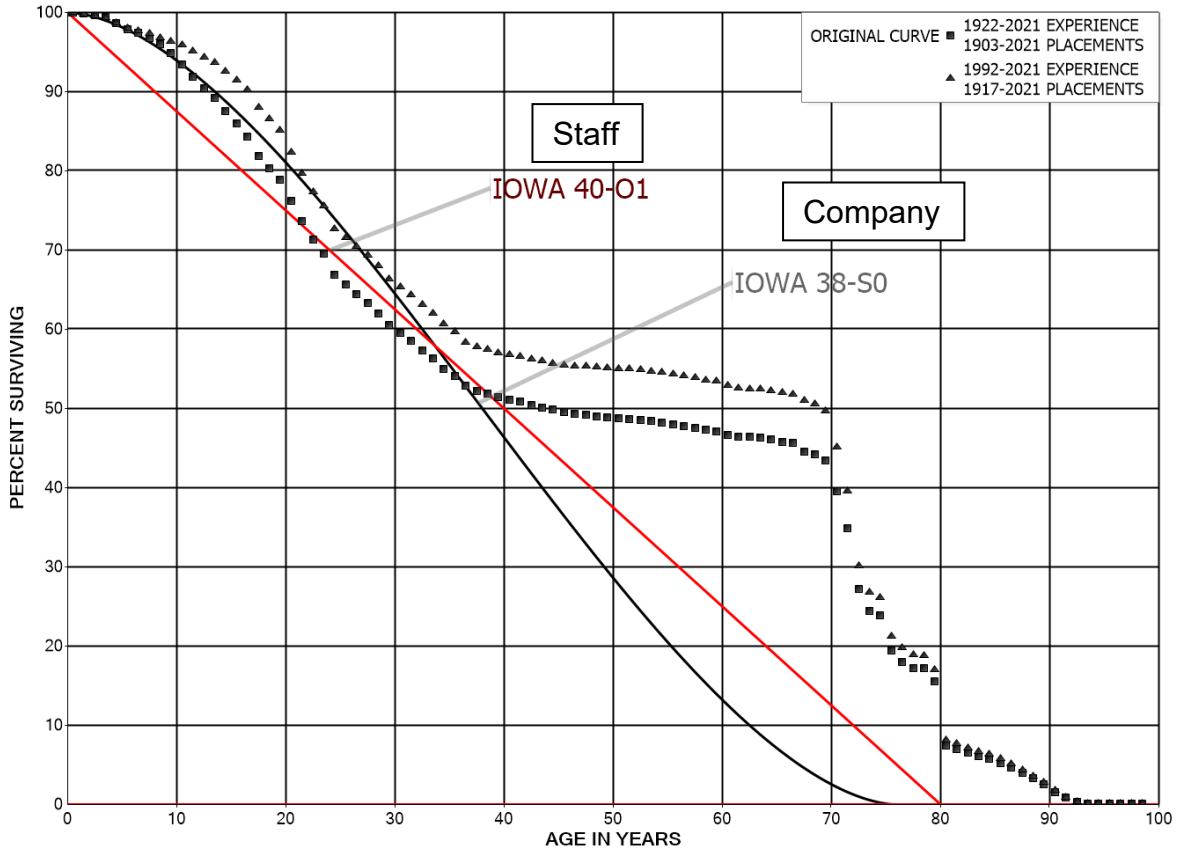
8

9 **Q. CAN YOU ILLUSTRATE THE DIFFERENCES IN LIFE ESTIMATES FOR**
 10 **ACCOUNT 373, STREET LIGHTING AND SIGNAL SYSTEMS?**

11 A. Yes. Figure 3 below sets forth the 38-S0 survivor curve recommended by the
 12 Company as compared to the 40-O1 survivor curve recommended by Staff. In this
 13 account, there are two experience bands presented related to historical indications of

1 the entire data base from 1922-2021 and a more recent 20-year experience band of
2 1992-2021. The more recent band is considered in this account to reflect the change
3 out of the lighting fixtures in the last few decades so a combined life cycle of two
4 types of lighting fixtures along with the poles and arms that are needed for each of the
5 types of luminaries. The more recent band shows a similar mortality curve shape but
6 a lesser retirement ratio from age 10 to age 40 which is the most significant portion of
7 the curve. The 38-S0 survivor curve is a very good fit of both bands through age 40
8 and reflects a reasonable expectation of the assets that will last beyond 40. The curve
9 represents a maximum life cycle of 75 years for this account. The 40-O1 survivor
10 curve does not represent the retirement patterns of the account prior to age 20. The
11 40-O1 does reflect a reasonable retirement pattern of the assets from age 20 to 40 but
12 this portion of the curve is not as significant as the early portion of the curve. The 40-
13 O1 survivor curve anticipates very high levels of retirements through age 20 which is
14 not consistent with past life characteristics. The 40-O1 curve for this account is a
15 prime example of mathematical matching of a smooth curve to the original life table
16 that does not necessarily match the life characteristics of the assets in the account
17 because the early ages have higher retirement ratios and the older ages have lesser
18 retirement ratios. The most significant portion of the life table is through age 57 as
19 there is less than 1% of plant exposed to retirement as compared to age 0. This means
20 the data after age 57 is not as reliable or a good indicator of the entire asset base for
21 street lighting. Street light assets beyond age 57 should not be a driver for the
22 streetlights in service today.

1 **Figure 3: Comparison of Company and Staff Proposed Survivor Curves for Account**
 2 **373.00 Street Lighting and Signal Systems**



3

4 **Q. DO YOU HAVE ANY OTHER CONCERNS WITH THE LIFE ESTIMATES**
 5 **PROPOSED BY STAFF?**

6 A. Yes. The life estimation for Account 370.00, Meters, proposed by Staff does not
 7 reflect the proper recovery pattern consistent with the life characteristics. The survivor
 8 curve that Staff proposed is the same 28-S0.5 curve as the Company, however, Staff
 9 neglected to reflect the truncation date of year end 2024. The assets in Account 370.00
 10 represents the older meter technology which is planned to be replaced by end of year
 11 2024. Therefore, the complete life characteristics for this account should include not
 12 only the survivor curve but must recognize that by the end of 2024, all these meters
 13 will be retired because they will have been replaced. When including this key

1 component of recovery, the impact on depreciation expense would be an increase of
2 \$16,397,620 to be consistent with the Company recommendation and the known end
3 of life of the assets.

4 **Q. WHAT DO YOU RECOMMEND RELATED TO THE SERVICE LIFE**
5 **ESTIMATES THAT SHOULD BE USED FOR DEPRECIATION RATES?**

6 A. Based on the statistical analyses and information regarding causes of retirement levels
7 in the future, I recommend that the service life estimates made by the Company and
8 filed as part of the depreciation study be adopted for use in developing depreciation
9 rates. As discussed in the Depreciation Study the service life estimates proposed by
10 the Company considered a number of factors including statistical analyses of data,
11 current Company policies and outlook as determined during conversations with
12 management, and the survivor curve estimates from previous studies of Ameren
13 Missouri and other electric companies.

14 **III. INCORRECT RESERVE USED BY STAFF FOR SOME ACCOUNTS**

15 **Q. CAN YOU IDENTIFY THE ACCOUNTS FOR WHICH AN INCORRECT**
16 **RESERVE WAS UTILIZED?**

17 A. Yes. The incorrect book reserve was utilized by Staff for 3 accounts which created
18 depreciation rates that are not consistent with the life and net salvage parameters
19 proposed. The incorrect accounts include: Account 314, Turbogenerator Units for
20 Labadie Steam facility; Account 332, Reservoirs, Dams and Waterways for Osage
21 Hydraulic facility; and Account 332, Reservoirs, Dams and Waterways for Taum Sauk
22 Hydraulic facility. In each case, Staff entered an amount that was less than the reported
23 book reserve on the Company records, which created depreciation rates and expense

1 that were overstated in the proposed rates by Staff. The interim survivor curve,
2 probable retirement date, surviving balance, net salvage percentage and calculation
3 based on the remaining life method proposed by Staff is the same as that in the
4 Depreciation Study from the Company. The correct book reserve for Account 314 for
5 Labadie is \$123,022,691 so the proper depreciation rate should be 2.97 percent and
6 resulting depreciation expense would be \$8,073,166. This would be a reduction of
7 \$3,679,163 for depreciation expense in Staff's position. For Account 332 at Osage,
8 the book reserve should be \$23,209,482 so the proper depreciation rate should be 2.94
9 percent and resulting depreciation expense would be \$2,541,801. This would be a
10 reduction of \$847,178 for depreciation expense in Staff's position. For Account 332
11 at Taum Sauk, the book reserve should be negative \$5,768,757 so the proper
12 depreciation rate should be 2.40 percent and resulting depreciation expense would be
13 \$295,588. This would be a reduction of \$2,107,277 for depreciation expense in Staff's
14 position.

15 **Q. WHAT IS THE OVERALL IMPACT OF THE CORRECTED BOOK**
16 **RESERVE FOR THESE THREE ACCOUNTS?**

17 A. Based on the correction of the book reserve for the three accounts, the depreciation
18 expense and rates that Staff would propose will be consistent with the Company
19 position. Therefore, these changes will reduce the depreciation expense in the Staff
20 schedule by \$6,633,618. The depreciation rates for each of these accounts will be
21 consistent with those recommended by the Company.

1 **IV. REMAINING LIFE DEPRECIATION RATES**

2 **Q. HAS STAFF PRESENTED ALL ACCOUNTS WITH THE REMAINING LIFE**
3 **METHOD IN THEIR RECOMMENDATIONS AS STAFF APPARENTLY**
4 **INTENDED?**

5 A. No.

6 **Q. WHICH ACCOUNTS HAVE NOT BEEN DEPRECIATED CONSISTENT**
7 **WITH THE REMAINING LIFE METHOD AS INTENDED BY STAFF.**

8 A. The transmission, distribution and general plant accounts do not represent remaining
9 life rates in the Staff Schedule CEC-d2. Specifically, this relates to transmission
10 accounts 352 through 359; distribution accounts 361 through 373 and general plant
11 accounts 390, 392 and 396.

12 **Q. HAS STAFF INTENDED TO DEPRECIATE THESE ACCOUNTS USING**
13 **THE REMAINING LIFE METHOD?**

14 A. Yes. Consistent with the depreciation rates that have been previously approved for
15 Ameren Missouri, all depreciable accounts not subject to general plant amortization
16 utilize the straight-line remaining life procedure. Through discussion with Staff, I
17 understand that all of these accounts will be recalculated using the remaining life
18 method. For the accounts that the life and net salvage parameters are the same as those
19 recommended by the Company in the Depreciation Study the depreciation rate and
20 expense will be the same as that recommended in the Depreciation Study. This change
21 will increase Staff's recommended depreciation expense by approximately \$5.9
22 million.

1 **V. GENERAL PLANT AMORTIZATION**

2 **Q. HAS STAFF RECOMMENDED GENERAL PLANT AMORTIZATION?**

3 A. Yes.

4 **Q. WHAT IS THE PROPER PROCESS FOR UTILIZING GENERAL PLANT**
5 **AMORTIZATION AND TO WHICH ACCOUNTS DOES GENERAL PLANT**
6 **AMORTIZATION RELATE?**

7 A. For general plant accounts that utilize amortization, the annual depreciation should be
8 based on a method of depreciation accounting that seeks to distribute the unrecovered
9 cost of fixed capital assets over the estimated remaining useful life of each unit, or
10 group of assets, in a systematic and reasonable manner.

11 Amortization account relates to General Plant Accounts 391.0, 391.2, 391.3,
12 393, 394, 395, 397 and 398. Additionally, amortization accounting should be utilized
13 for certain general plant assets recorded in Generating Accounts 316.21, 316.22,
14 316.23, 325.21, 325.22, 325.23, 335.21, 335.22, 335.23, 346.21, 346.22 and 346.23,
15 as well as training assets in General Plant Accounts 390.05, 392.05, 394.05 and
16 397.05.

17 **Q. DO THE RATES RECOMMENDED BY STAFF MEET THE FULL PROCESS**
18 **OF AMORTIZATION ACCOUNTING?**

19 A. Not exactly. Staff has recommended the proper rates for each of the amortized
20 accounts, however, full implementation of these rates to achieve full recovery must
21 include proper alignment of the book reserve. Therefore, to utilize the rates Staff
22 proposes the book reserve for each account must be realigned to be consistent with the
23 surviving vintage balances of each account.

1 **Q. DO YOU AGREE WITH THE RATES THAT STAFF PROPOSES FOR THE**
2 **AMORTIZATION PERIOD UTILIZED BY EACH ACCOUNT AND**
3 **SUBACCOUNT?**

4 A. Yes, as long as the appropriate book reserve for each account is adjusted to the related
5 accounts equally so the total book reserve remains the same for all types of assets. In
6 other words, if the book reserve for a general plant account is reduced by \$10,000 to
7 achieve the needed amortization rate, then a related depreciation account must have
8 its book reserve increased by \$10,000 to maintain the total book reserve that has been
9 recorded to date. For example, Account 316.21, Miscellaneous Power Plant
10 Equipment – Office Furniture, for Sioux Steam Plant needs a book reserve increase of
11 approximately \$70,000 in order to properly recover all of these assets at a 5.00 percent
12 rate. The offsetting book reserve adjustment would be to Account 316.00,
13 Miscellaneous Power Plant, for Sioux Steam Plant for the same \$70,000 amount. This
14 necessary step was a result of when the assets in Account 316.21 were segregated from
15 Account 316.00 in a previous case⁵ to utilize amortization accounting, but the
16 implementation of this step was not able to be handled retroactively.

17 **Q. WOULD THE USE OF STAFF'S AMORTIZATION RATES BE**
18 **APPROPRIATE GOING FORWARD?**

19 A. Yes, in conjunction with the reserve adjustments. If both components are not
20 approved the amortization rates proposed in the Depreciation Study are the most
21 appropriate in order to achieve full recovery of the service value of these assets.

5 Case No. ER-2014-0258, Order Approving Stipulation and Agreement As To Depreciation, effective March 11, 2015.

1 **Q. PLEASE SUMMARIZE THE CHANGES TO STAFF'S DIRECT CASE**
2 **DEPRECIATION EXPENSE THAT SHOULD BE MADE AS DISCUSSED**
3 **ABOVE.**

4 **A.** The overall impact of Staff's changes is a reduction of \$18,920,775 as compared to
5 the Company's proposed depreciation expense. Many of the components of Staff's
6 changes affect the same account, however, a general impact of each component is as
7 follows: The impact of the 5 accounts that Staff has proposed different average service
8 life – survivor curve combinations is a reduction of \$7,431,099; the impact of Staff
9 not including the end of life component for Account 370, Meters is a reduction of
10 \$16,397,620; the impact of utilizing the correct reserve for the three accounts is an
11 increase of \$6,633,618; the impact of utilizing the appropriate amortization rate for
12 general plant accounts with the proper reserve adjustment is a reduction of \$1,751,304;
13 and the impact of incorporating the remaining life methodology for all accounts is an
14 increase of \$25,630.⁶

15 **VI. CONTINUING PLANT INVENTORY RECORD - REASONABLE**
16 **APPROACH TO RECORDING RETIREMENT AGES**

17 **Q. STAFF EXPRESSES CONCERNS OVER THE ACCURACY OF THE**
18 **COMPANY'S (CPR). DO YOU SHARE THE SAME CONCERNS?**

19 **A.** No. I have reviewed many years of the Company's CPR in my capacity as a
20 depreciation expert and found the information to be reliable. Specifically, the
21 Company's processes and methods of retirements for mass property assets are the same

⁶ These figures reflect the impact on depreciation expense as compared to the Company's total depreciation expense, based on use of Staff-recommended depreciation rates applied to the Company's plant-in-service balance as of December 31, 2021. The impact on depreciation expense would vary if applied to the trued-up plant-in-service values through December 31, 2022.

1 or similar to those of many other utilities. In the past 20 years, many utilities have
2 implemented technology solutions to allow the property accounting staff to better meet
3 increasing quantities of work orders for capital assets. These technology solutions and
4 accompanying statistical analysis that supports the processing of retirements for mass
5 property in a Company's CPR is a necessity for keeping the property records accurate
6 and as current as possible.

7 **Q. CAN YOU ILLUSTRATE AN EXAMPLE OF HOW THE FIXED ASSET**
8 **SYSTEM ALLOWS FOR A REASONABLE RECORDING OF RETIREMENT**
9 **AGES?**

10 A. Yes. I will use Account 364, Poles and Fixtures, to illustrate the process. In this
11 example, there is a work order to replace 10, 40-foot high distribution poles in a rural
12 area south of St. Louis. The new poles are 50-foot high and will have a vintage of
13 2022. The detailed property system for distribution poles in the south St. Louis area
14 of 40-foot poles are identified as having been installed from 1965 to 1975. Thus, the
15 10 poles are retired with a vintage of 1965 through 1975 on a percentage basis that is
16 consistent with the current survivor curve in place.

17 **Q. DOES THIS PROCESS SIGNIFICANTLY ALTER THE QUALITY OF THE**
18 **PROPERTY RECORDS?**

19 A. No. It is always best to be able to specifically identify the actual vintage of an asset.
20 However, for mass property assets achieving this goal is not realistic. Regular
21 depreciation studies allow for the proper inquiries, review of operational data, and
22 statistical analysis to recommend adjustments to the Company's survivor curves where

1 appropriate, which are then incorporated into the technology used to process the
2 retirements.

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

4 A. Yes.