Exhibit No.:_____
Issue: Depreciation
Witness: John J. Spanos
Sponsoring Party: Ameren Missouri
File No.: ER-2024-0319

MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. ER-2024-0319

SURREBUTTAL TESTIMONY OF

JOHN J. SPANOS

ON BEHALF OF

AMEREN MISSOURI

Camp Hill, Pennsylvania

February 13, 2025

TABLE OF CONTENTS

I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME AND ADDRESS.

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

Q. ARE YOU THE SAME JOHN J. SPANOS WHO PREFILED DIRECT AND REBUTTAL TESTIMONY IN THIS MATTER?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to address the rebuttal testimony filed by Missouri Public Service Commission Staff ("Staff") witness Amanda Arandia and Office of the Public Counsel ("OPC") witness John A. Robinett related to depreciation.

Q. WHAT IS THE SUBJECT OF YOUR REBUTTAL TESTIMONY?

A. The primary subjects of my surrebuttal testimony as it relates to Staff's positions are the depreciation techniques recommended by witness Arandia. Specifically, I will address Staff's inconsistent position that the remaining life technique should be used for some accounts, and the whole life technique should be used for others. Additionally, I will rebut the selective use of existing net salvage percentages for some accounts based on Staff's claims about issues it is having with its depreciation software. As for the subjects related to OPC witness Robinett, I will address the life spanning for some generating facilities, which includes the development of depreciation rates for generating plant proposed at a different time period and without

all parameters included. I will also address Mr. Robinett's rebuttal testimony related to general plant amortization.

Q. WHAT IS YOUR OVERALL REACTION TO THE DEPRECIATION-RELATED TESTIMONY FROM STAFF AND OPC?

A. Both Staff and OPC make various depreciation-related recommendations without providing substantial justification for deviating from the Company's and in many cases, Staff's and OPC's[1] own past practices. Staff and OPC are offering "solutions" in search of a problem, when no underlying problem or reason for change in past practice exists. In making these recommendations, Staff and OPC have disregarded fundamental depreciation principles, as well as any measure of the cost that would be required to implement certain of the recommended changes in comparison to the benefits (if any) of doing so. Staff's testimony has acknowledged its ongoing software issue that seemingly has prevented it from performing a proper depreciation study, and OPC has substituted use of a proper depreciation study with an over-simplified Excel spreadsheet exercise that lacks the kind of detailed analysis of the parameters that should drive determination of depreciation rates for each plant account. Additionally, OPC suggests detailed analysis that requires restatement of the property records over the last sixty years without establishing that there is any benefit from doing so, and without considering what it would cost to do so. The Commission should reject each of Staff's and OPC's recommendations because, fundamentally, they have

[1] Mr. Robinett filed testimony in File No. ER-2022-0337, just approximately two years ago, and had none of the concerns he raises in this case at that time.

simply failed to provide a substantial justification for deviating from the rates established via the Company's full and detailed Depreciation Study.

II. WHOLE LIFE VERSUS REMAINING LIFE TECHNIQUE

Q. WHAT DOES STAFF RECOMMEND RELATED TO THE DEPRECIATION TEHCNIQUE USED FOR CALCULATING DEPRECIATION RATES?

A. Staff witness Arandia is recommending changing from the past practice of using the remaining life technique to the whole life technique for certain transmission, distribution, and general plant accounts. While Ms. Arandia recommends this change in technique for these certain accounts, her recommendation relies on the remaining life technique for all other accounts. It is highly unusual and completely unreasonable to apply different techniques to accounts and assets within the *same function* at a single utility.

Q. WHAT DO YOU RECOMMEND RELATED TO THE DEPRECIATION TECHNIQUE USED FOR CALCULATING DEPRECIATION RATES?

A. The determination of proper depreciation rates requires the selection of a depreciation technique. The most common technique used for public utility depreciation is the remaining life technique. My recommendation is to continue to use the remaining life technique for all plant accounts. The remaining life technique has been used to calculate the approved rates for the last several Ameren Missouri rate cases.[2] Staff has presented no substantial justification to depart from this practice for the selected

[2] Most recent proceedings: Cases ER-2022-0337, ER-2021-0240, and ER-2019-0335. While each of these cases were settled, depreciation rates were agreed upon using either Company or Staff proposed depreciation rates. Those depreciation rates were developed using the remaining life technique in all of those cases.

accounts and for the selected accounts to be different than the other related asset classes.

Q. WHY IS USE OF THE WHOLE LIFE TECHNIQUE INFERIOR TO USE OF THE REMAINING LIFE DEPRECIATION TECHNIQUE?

A. The whole life technique is used in a few jurisdictions, but is not nearly as prevalent as the remaining life technique and for good reason. For the whole life technique, depreciation is calculated based on the basis of the full service life, or "whole life", estimated for a group of assets. For example, if the service life-estimate for an asset that costs $100 is 10 years, and no net salvage is expected, then the annual depreciation rate would be 10% (or (100%)/10). However, issues can arise with the whole life technique if service life or net salvage estimates change or if the real-world experience of the group does not perfectly match the service life and net salvage estimates, which in reality happens quite often at every utility Using the same example of an asset that costs $100 but has an original life-estimate of just over 8 years, after five years of the asset's life the accumulated depreciation would be $60.[3], Then assume that after five years the life-estimate is extended to 10 years. A 10% (and $10) whole life depreciation rate would now be applied for each of the remaining five years of the asset's life, which would result in a total recovery through depreciation of $110 (the $60 in accumulated depreciation plus $10 per year for the remaining five years). As a result, the whole life technique would, without an adjustment, result in the recovery of the incorrect amount (in this example, too much) of depreciation expense. Such

[3] Applying approximately $12 of depreciation per year over the first 5 years.

situations can, and do, arise regularly because determining depreciation expense is, by its nature, a forecast of the future for thousands of individual assets.

The remaining life technique properly addresses the issue described in the previous paragraph by taking a prospective approach and allocating costs over the expected time the related assets will remain in service. Rather than calculating depreciation based on the whole service life, the remaining life technique allocates the amount remaining to be recovered (which is the original cost for the group less net salvage less accumulated depreciation) as and when each depreciation study is performed over its estimated remaining life. As a result, the remaining life technique ensures that the full service value (original cost less net salvage) will be reflected in rates through depreciation expense – and no more or no less. In part for this reason, the remaining life technique is used in the vast majority of U.S. regulatory jurisdictions and has routinely been used in Missouri.

Q. WHAT REASONS DOES STAFF OFFER IN SUPPORT OF THE WHOLE LIFE TECHNIQUE FOR ONLY SOME ACCOUNTS?

A. Staff witness Arandia states that over the years it can be assumed that service lives of the different plant accounts will change from study to study due to various factors. She states that by using the remaining life technique, it is possible that new investments could accrue at rates that are either faster or slower than if the whole life technique was used, and it is possible that accounts could become over- or under-accrued, leading to more fluctuations in depreciation rates.[4] This is not accurate

[4] Arandia Rebuttal Testimony, p. 4, 18:21

because, as I discuss below, the remaining life method within group depreciation smooths the fluctuations which is not the case when the whole life technique is used.

Q. WHAT ARE THE ISSUES WITH STAFF'S ARGUMENTS SUPPORTING THE WHOLE LIFE TECHNIQUE?

A. There are several issues with Staff's arguments to support the whole life technique over the remaining life technique. The first issue is that regardless of the technique, if service lives change between studies, then the Company will collect depreciation at a rate that is different than the depreciation they would collect if they used the updated service life estimate. All else equal, decreasing service lives will lead to increased depreciation for both the remaining life technique and the whole life technique. However, the whole life method will not result in full recovery. Recovery could be more or it could be less, which is contrary to the key goal of depreciation: to recover the *actual* investment over the service life, as indicated by *NARUC's Public Utilities Depreciation Practices* manual, which is considered the most authoritative source used in the industry.[5] The Commission also recognizes that this is the purpose of depreciation. *See, e.g., Report and Order*, File No. ER-2008-0318 (a Company rate case), 271 P.U.R.4th 475, 2009 WL 248218 (Mo. P.S.C.) (Jan. 27, 2009), p. 39 ("Depreciation is the means by which a utility is able to recover the full service value of its investment [not more, not less than it invested]….").

Another issue with Staff's argument is the idea that using the remaining life technique will lead to more fluctuations in depreciation expense and more pronounced

[5] The Commission has relied on this manual as an authoritative source for establishing the use of proper depreciation principles and techniques, including in its decision in *In the Matter of Laclede Gas Company's Tariff to Revise Natural Gas Rate Schedules,* Third Report and Order, File No. GR-99-315 (Jan. 11, 2005).

under- or over-recovery of depreciation than what would result from using the whole life technique. Staff is wrong. On the contrary, the remaining life technique leads to less variability in annual depreciation because any under- or over-recovery that has happened in the past is included in the updated remaining life rates that will be filed from rate case to rate case after the completion of periodic depreciation studies and smoothed over the remaining life of the asset. Witness Arandia's application of the whole life method (for the few mass accounts she recommended this alternative method as well as the general plant accounts) did not include the necessary amortization of the reserve imbalance or any reserve transfers that are necessary when switching depreciation techniques in order to ensure full recovery. For example, switching from remaining life to whole life without the proper reserve reclassification will create over or under recovery situations as described in the whole life example on page 5 of this testimony. Failure to do so will create a reserve imbalance, and if there is a reserve imbalance, depreciation rates would fluctuate more, not less, drastically. In contrast, the remaining life method smooths the recovery between the theoretical and actual reserve over the remaining life of the entire asset class.

Q. DOES STAFF'S PROPOSAL TO USE THE REMAINING LIFE APPROACH FOR SOME ACCOUNTS AND NOT FOR OTHERS PRESENT ANY OTHER PROBLEMATIC ISSUES?

A. Yes. Witness Arandia's selective method changes for some accounts requires unnecessary complexity in depreciation by accounts and contradicts reserve realignment that has been proposed by Staff and implemented in the past. There is a need to be consistent in the recovery pattern of all asset classes and in particular the

assets within a function. Otherwise, an approach such as that suggested by witness Arianda will create a recovery pattern between accounts that is neither systematic nor rational. Systematic and rational depreciation is standard practice as defined by the FERC Uniform System of Accounts[6].

Q. ASIDE FROM THE REMAINING LIFE VERSUS WHOLE LIFE ISSUE, DOES STAFF'S POSITION ON NET SALVAGE FOR SOME ACCOUNTS ALSO CREATE INCONSISTENCY?

A. Yes. Staff has decided to maintain the current net salvage percentages for some accounts because Staff indicates it is having software issues. It is not appropriate to establish life estimates from one period (based on the Depreciation Study period for this case) and then use associated net salvage percentages from an entirely different period not covered by the Depreciation Study. Relying on data available since the Company's last depreciation study for developing one component of depreciation expense, while ignoring that same source data when developing another component of depreciation expense, unreasonably violates the matching principle. Developing the most appropriate parameters should be based on the same time periods as life and net salvage estimates determine the depreciation rate and expense. This is the matching principle concept.

III. LIFE SPANNING OF SOME GENERATING FACILITIES

Q. HAS OPC PROPOSED A DIFFERENT APPROACH TO RECOVERY FOR OTHER PRODUCTION PLANT ASSETS?

6 FERC Uniform System of Accounts Definition 22. Depreciation Accounting Part C. Rate. Utilities must use percentage rates of depreciation that are based on a method of depreciation that allocates in a systematic and rational manner the service value of depreciable property to the service life of the property.

A. Yes. OPC proposes to separate the historical Other Production Plant asset depreciation groups into many new groups by location or unit and determine specific probable retirement dates for each of the new locations or units. The establishment of a probable retirement date for a single generating asset in a depreciation group is often referred to as the life span approach. The life span approach has been used to set the Company's production depreciation rates for steam and nuclear baseload plants over the Company's last seven electric rate cases. Mr. Robinett now wants to extend life span treatment to combustion turbines, landfill sites, wind farms and solar fields. However, for several reasons I do not agree doing so is appropriate.

Q. WHAT ARE THOSE REASONS?

A. First, while the life span approach can be appropriate for all of these assets, it requires the existence of necessary and appropriate data and also requires pre-planning and analysis to determine when the assets in question are reasonably expected to retire. Such data, planning, and analysis does not exist for the other production plant at issue. Second, even if detailed data were available (which the Company does not have) and even if an analysis had been performed to determine a probable retirement date, that unique probable retirement date must be combined with an interim survivor curve to achieve appropriate recovery since there will be interim retirements over the life of the plant. Third, all the necessary life and net salvage parameters must be applied to the proper surviving plant balance by vintage as of the end of the period through which the study runs to determine the appropriate depreciation rate and remaining life. Mr. Robinett overlooks each of these important steps.

Q. ARE THERE OTHER FLAWS IN MR. ROBINETT'S PROPOSAL?

A. Yes, Not only does Mr. Robinett's proposal suffer from the above flaws, but it is also flawed because he performed his calculations based on the Company's *projected* plant balances filed as part of its direct testimony (i.e., pro forma balances estimated to exist at the true-up date). Pro-forma, projected balances alone are insufficient to solely rely on in performing a depreciation study. As I explained in my direct testimony, the transaction level activity[7] that gave rise to those balances is essential to analyze in performing a depreciation study, as is data and information gained through site visits and interviews.[8]

Q. WHAT SPECIFIC CONCERNS DO YOU HAVE WITH THE APPLICATION OF THE LIFE SPAN APPROACH TO THE COMPANY'S OTHER PRODUCTION PLANT COMBUSTION TURBINE GENERATORS ("CTG") ASSETS?

A. The Company has over 40 CTG units across 12 locations that range between approximately 20 and 60 years old. The different sub-components of these plants are recorded in 10 different depreciation groups (by FERC account) today. Mr. Robinett's recommendation would necessitate 120 (by location) depreciation groups and associated depreciation rates. This does not even consider the multiple units for each location. The average account (again under Mr. Robinett's recommendation) would contain a relatively small net book value of plant, approximately $4 million (by location). To develop these new accounts would require a detailed study of historical

7 No transaction level activity exists related to the Company's projected plant balances Mr. Robinett relied on and analysis of the actual transaction level activity and balances that exist would almost certainly lead Mr. Robinett to calculate different depreciation rate recommendations and change his position in this case

8 None of which Mr. Robinett has performed.

data as far back as 60 years from today, which would be several times more time-consuming and costly than a typical depreciation study. More specifically, I would need to re-create 60 years of history and determine the appropriate allocation of the remaining net book value contained within the current accounts to the new accounts. It would then also be much more costly to the Company on an ongoing basis to maintain books and records and perform depreciation studies if Mr. Robinett's desired level of extreme disaggregation were required. Further, Mr. Robinett's recommendation of one probable retirement date for all combustion turbines does not match actual unit utilization to asset recovery and completely disregards the Company's plans for the assets.

Q. CAN YOU BRIEFLY EXPLAIN THE EFFORT REQUIRED TO COMPLETE OPC'S LOCATION DETAIL AS COMPARED TO WHAT IS CURRENTLY DONE FOR A STUDY?

A. Yes. To achieve OPC's location detail would require identifying every property accounting entry in the Other Production Accounts by location and unit. This would relate to every addition, retirement, transfer and adjustment since 1967 through 2023. The first step would require determining if all the transactional entries are available and how many are electronically available and how many are only in handwritten ledgers. The second step is to identify the cost of removal and gross salvage that was recorded each year related to each entry. The retirements would also need to be matched by location and unit which typically the cost of removal and gross salvage is not time synchronized. Once all the records have been identified, then a location by location analysis is required in order to identify the appropriate probable retirement

date and whether the interim survivor curve is appropriate for the assets at that location. At a minimum this would be six to nine months of work with no guarantee of improved depreciation results. In contrast, the current practice of a typical deprecation study allows for scrubbing of the historical data from the last case to make ensure all assets are properly recorded in the account based on the asset description; a site visit periodically to understand the operation of the assets and condition of the assets; a discussion with management to understand the outlook of the assets and if the life characteristics of the group of assets is comparable to the past or have changed. These standard depreciation study tasks can be completed as part of a standard depreciation study timeline and at costs that are in line with normal rate case expenses.

Q. DO YOU HAVE ANY ADDITIONAL CONCERNS ABOUT OPC'S POSITION REGARDING THE COMPANY'S MARYLAND HEIGHTS CTG?

A. Yes, I do**.** Mr. Robinett only segregates the assets in Account 344 for the Maryland Heights Landfill CTGs and applies a life span without considering any of the other assets. For example, there are assets related to Maryland Heights in Accounts 341, 345 and 346 which Mr. Robinett does not life span consistent with the assets at Maryland Heights in Account 344 that he does life span. That, in itself, is against the concept of a concurrent date of retirement since you cannot operate a plant if one class of accounts is retired before the others. However, the more critical flaw in his calculations is that he calculates a negative depreciation rate and expense. Given that there is undepreciated investment for Maryland Heights, a negative depreciation rate obviously will not allow for the return of the invested capital over the service life, which is the central purpose of depreciation. It is inexplicable and nonsensical to

reduce the revenue requirement used to set customer rates through *negative* depreciation resulting from an investment in generating assets that has not yet been fully recovered.

Q. WHAT SPECIFIC CONCERNS DO YOU HAVE WITH OPC'S APPLICATION OF THE LIFE SPAN APPROACH TO THE COMPANY'S OTHER PRODUCTION PLANT WIND ASSETS?

A. In the case of the two wind farms, High Prairie and Atchinson, the available data is recorded by location and there is a specific probable retirement date in place based on Company plans. The net salvage percentage for each account is consistently estimated from the periodic Company depreciation studies, including the Depreciation Study filed in this docket. The areas that Mr. Robinett has not calculated correctly relate to the remaining life. Aside from the fact he uses projected balances, his remaining life calculation does not consider the combination of the probable retirement date and interim survivor curves. It is critical to consider both since the development of a depreciation rate is impacted by how much is retired on an interim basis and how much is retired at the concurrent end date. Mr. Robinett does not take this into consideration in his overly-simplified spreadsheet of depreciation rates. Therefore, he overstates the remaining life and, in his calculation, understates the depreciation expense and corresponding depreciation rate. Mr. Robinett assumes in his calculation that all component assets of each wind farm will last until the probable retirement date and no component assets will be replaced over the life of the wind farm, that is, that no component of the wind farms will experience an interim retirement. This is obviously

not true as some replacements always occur over the life of a power plant, including a wind facility.

Q. WHAT OTHER CONCERNS DO YOU HAVE WITH OPC'S APPROACH TO THE SOLAR ASSETS CONSTITUTING THE OTHER PRODUCTION FACILITIES IDENTIFIED ABOVE?

A. Mr. Robinett provides different life span dates for various asset classes. Mr. Robinett applies a June 2044 probable retirement date to all solar assets except what he has classified as large solar assets in Account 344, Generators. He adds five years, 2049 for the large assets in Account 344. Therefore, he applies a different probable retirement date for assets in Accounts 341, 345 and 346 than he does for the large solar sites associated with Account 344. There is no basis for taking this approach, and it contradicts the whole concept of life spanning and using a concurrent retirement date. Additionally, his remaining life calculation is flawed as described above in that depreciation expense and rate do not consider the combination of a probable retirement date and interim survivor curve. Mr. Robinett applies a *common* life span to all CTG assets even though their probable retirement dates will be *different*, and the life span of each facility has a different remaining life, therefore, he inappropriately applies one probable retirement date to all assets with no true interim survivor curve. As a result, his recovery is not close to what will occur for asset utilization.

IV. GENERAL PLANT AMORTIZATION

Q. HAS OPC CHALLENGED THE CURRENT USE OF GENERAL PLANT AMORTIZATION?

A. No.

Q. ARE THE PROPOSED RATES IN THE DEPRECIATION STUDY CONSISTENT WITH THE AMORTIZATION PERIODS FOR EACH ACCOUNT OR SUBACCOUNT?

A. Yes.

Q. ARE THE AMORTIZATION RATES IN THE DEPRECIATION STUDY DEVELOPED USING THE REMAINING LIFE METHOD?

A. Yes. Once full implementation of general plant amortization occurs, which includes aligning the book reserve to the plant balances and making the necessary retirements at the time the amortization period ends, then the depreciation rates will remain stable for existing and future assets in the account.

Q. WHAT ISSUES RELATING TO GENERAL PLANT AMORTIZATION DOES MR. ROBINETT CHALLENGE IN HIS TESTIMONY?

A. Mr. Robinett appears to challenge the determination of amortization periods going forward. Once again, his concerns are based on concepts within general plant amortization that are not applicable if the complete understanding of general plant amortization is implemented. The amortization period for assets for which a general plant amortization approach is used is not determined by statistical analysis but instead is determined by informed judgment as to the appropriate useful life of the assets in each account, which in turn is based on the nature of the assets and how those assets will be utilized. The concept of general plant amortization, which was initiated in the early 1990s. Also in the 1990s, FERC released Accounting Release 15 to further provide guidance as to how reasonable amortization periods should be applied. Using general plant amortization, which eliminates incurring the high costs associated with

maintaining physical inventories and the unnecessary tracking of low value, high volume assets, makes recovery more stable and allows accounting and operations staff to focus time on more critical assets. If assets in the account have a changed useful life or there is a substantially different asset mix, then an amortization period can be changed. But there is no evidence that either of those facts exist and, in fact, my examination of the data in preparation of the Depreciation Study indicates that those conditions do not exist.

Q. YOU HAVE ADDRESSED OPC'S DEPRECIATION RATES. WHAT ABOUT OPC'S ALLEGATION THAT THE COMPANY'S DEPRECIATION STUDY DOES NOT COMPLY WITH THE COMMISSION'S DEPRECIATION STUDY RULE?

A. Mr. Robinett claims that unless the life span method is used – that is, we assume production plant A will retire on date X, and plant B on date Y, that we have failed to comply with the Commission's rule. For years, Staff advocated for the use of a mass property approach to determining depreciation rates for the Company's large steam units. Indeed, for many years Ameren Missouri's depreciation rates were set for those plants using Staff's approach. In 2010, after full litigation of the issues, the Commission agreed with Ameren Missouri that the life span approach should be used for those plants. Depreciation rates (and Staff has agreed) have been set using the life span approach ever since then, based on specific estimated retirement dates for the

plants and location-specific data. As discussed earlier, such retirement dates and location-specific data does not exist for most of the Company's other production units.[9]

The Commission rule cited by Mr. Robinett has not changed for decades; it certainly existed when a mass property approach was being used by Staff and approved by the Commission for the Company's steam production. The Commission never found, and no party ever suggested, that the Company's depreciation studies (which have been performed by my firm for more than three decades) were deficient.

Q DOES THE DEPRECIATION STUDY IN THIS CASE COMPLY WITH THE COMMISSION'S DEPRECIATION STUDY RULES?

A. Yes, it does. My firm has prepared and submitted depreciation studies for Ameren Missouri and other Missouri electric utilities for decades, under a Commission depreciation rule that is essentially the same as the rule that exists today. The Commission's rule is specific and detailed, and it has been interpreted and applied to require the kind of thorough, detailed study that is reflected in the study report sponsored by my direct testimony. It specifically requires a study and a database, which necessarily means it requires that we provide the detailed historical data, original cost, interim retirements, experienced net salvage, etc. and that we *study* them – hence the requirement for a study, in addition to providing a database containing the information that we are studying. It does not contemplate a "spreadsheet exercise" where numbers are plugged into a formula, which appears to be the approach taken by Mr. Robinett in an effort to produce lower depreciation rates.

9 The Callaway Energy Center has always been depreciated using a life span approach due to its fixed Nuclear Regulatory Commission license term.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Adjust Its Revenues for Electric Service.	)))	Case No. ER-2024-0319

AFFIDAVIT OF JOHN J. SPANOS

COMMONWEALTH OF PENNSYLVANIA)
) ss
COUNTY OF CUMBERLAND)

John Spanos, being first duly sworn states:

My name is John J. Spanos, and on my oath declare that I am of sound mind and lawful age; that I have prepared the foregoing *Surrebuttal Testimony*; and further, under the penalty of perjury, that the same is true and correct to the best of my knowledge and belief.

/s/ John J. Spanos
John J. Spanos

Sworn to me this 14th day of February, 2025.