BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of Decommissioning Cost Estimate for Callaway Energy and Funding Level of Nuclear Decommissioning Trust Fund	)))))	**Case No. EO-2027-0004**

STAFF RECOMMENDATION

COMES NOW the Staff ("Staff") of the Missouri Public Service Commission, and for its *Staff Recommendation* in this matter, Staff respectfully states:

1. On September 1, 2026, Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri", "Company", or "Applicant") filed its application ("Application"), pursuant to Commission Rule 20 CSR 4240-20.070(4), requesting approval of its triennial filing of cost estimates for Callaway decommissioning, including the Independent Fuel Storage Installation ("ISFSI"), and approval of the funding level of the Nuclear Decommissioning Trust Fund ("Fund").

2. Federal Regulation 10 CFR 50.75 establishes minimum funding requirements necessary for licensees to provide reasonable assurance that funds will be available for the decommissioning process. Additionally, pursuant to Federal Regulation 10 CFR 50.75(a), "(f)unding for the decommissioning of power reactors may also be subject to the regulation of Federal or State Government agencies (e.g., Federal Energy Regulatory Commission (FERC) and State Public Utility Commissions) that have jurisdiction over rate regulation."

3. Section 393.292, RSMo requires that "the amounts collected from ratepayers and paid into such trust funds will be neither greater nor lesser than the amounts necessary to carry out the purposes of the trusts."

4. As explained in more detail in Staff's Memorandum, attached and incorporated hereto as Appendix A, Staff recommends the Commission:

a. Approve Ameren Missouri's decommissioning cost estimate for the Callaway Energy Center and the ISFSI included in Ameren Missouri's Application; and

b. Maintain the current suspension of customer contributions to the Nuclear Decommissioning Trust Fund and approve a target allocation of 50% equity and 50% debt/fixed-income investments prior to the de-risking period. These recommendations are subject to the following conditions:

(1) Ameren Missouri will file the proper decommissioning trust fund annual contribution requirement, along with evidence and testimony in support thereof, in its next rate case for ratemaking purposes.

(2) No annual decommissioning expense accrual or Nuclear Decommissioning Trust Fund contribution shall be included in Ameren Missouri's current cost of service for ratemaking purposes.

(3) The annual decommissioning contribution requirement remains subject to modification by the Commission in a subsequent general rate proceeding or other proceeding authorized by law, based on changed circumstances and consistent with Section 393.292, RSMo

(4) Ameren Missouri shall request reinstatement of customer contributions to the Nuclear Decommissioning Trust Fund if, at the time of its next triennial filing, the estimated decommissioning costs exceed the net value of the Nuclear Decommissioning Trust Fund by more than $50 million, consistent with the Commission's Report and Order in Case No. EO-2023-0448.

(5) Ameren Missouri's Nuclear Decommissioning Trust Fund asset allocation shall be reviewed in its next triennial filing, taking into account economic conditions at the time that may affect the probability of having a fully funded trust.

(6) Ameren Missouri shall within 30 days of filing with the Nuclear Regulatory Commission provide a status report on the progress of the operating license extension process, including any resulting changes to the anticipated decommissioning timeline and funding adequacy.

WHEREFORE, Staff recommends that the Commission order Staff's recommendations above and grant further relief as justified by the circumstances.

Respectfully Submitted,

/s/ Andrea B. Hansen
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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been transmitted by electronic mail to counsel of record this 26th day of October, 2026.

/s/ Andrea B. Hansen

MEMORANDUM

TO: Missouri Public Service Commission Official Case File
Case No. EO-2027-0004, Union Electric Company, d/b/a Ameren Missouri

FROM: Johnny Garcia, Financial Analyst I
Financial Analysis Department

/s/ Seoung Joun Won, PhD 10/26/2026
Financial and Business Analysis Division / Date

SUBJECT: Staff Recommendation Concerning the Application of Union Electric Company, d/b/a Ameren Missouri, for Acceptance of Its Triennial Filing of Cost Estimates for Callaway Energy Center Decommissioning, Including the Independent Spent Fuel Storage Installation, and Approval of the Funding Level of the Nuclear Decommissioning Trust Fund.

DATE: October 26, 2026

FINDING OF FACTS:

1. Applicant:

Union Electric Company, d/b/a Ameren Missouri.

2. Nuclear Power Plant:

The Callaway Energy Center ("Callaway" or "Plant").

3. Decommissioning Costs:

The total cost to decommission the Callaway Energy Center and the Independent Spent Fuel Storage Installation ("ISFSI"), employing the DECON alternative, is $1,151,991,000 in 2026 dollars.[1] The majority of the cost, $950.0 million (approximately 82.5%) is associated with the physical decontamination and dismantling of the nuclear unit, so that the operating licenses can be terminated. Caretaking and handling of the spent fuel and termination of the ISFSI license constitutes an additional 8.0% of the cost. The remaining 9.6% is for the demolition of the remaining structures and limited restoration of the site.[2]

[1] DECON refers to a decontamination process used during the decommissioning of nuclear facilities, which is the process of safely shutting down and dismantling a nuclear facility at the end of its operational life.
[2] Staff Data Request No. 0011.1.

4. Funding Level:

Continuation of the current funding level of its nuclear decommissioning trust fund with no customer contributions.

5. Certificate of Corporate Good Standing:

Yes.[3]

6. Cost Study:

TLG Services, Inc. ("TLG") prepared *6 Escalation Analysis for the Callaway Nuclear Energy Center Decommissioning Cost Study,* ("2026 Study") under the direction of Ameren Missouri.[4] The 2026 Study is attached to Ameren Missouri's Application as Attachment 3. TLG has prepared the decommissioning cost estimates of the Callaway Energy Center since 1993.[5]

7. Funding Adequacy:

Willis Towers Watson ("WTW") developed a funding adequacy model using 5,000 stochastic modeling scenarios, as outlined in Attachment 4 to Ameren Missouri's Application.[6]

8. Operating Life:

60-year.[7]

9. License Expiration:

October 18, 2044.[8]

10. Jurisdictional Allocator:

Missouri 100%.

[3] Paragraph 5, the Application.
[4] Paragraph 10, the Application.
[5] Paragraph 9, the Application.
[6] Paragraph 12 & 13, the Application.
[7] Paragraph 10, the Application.
[8] Page 1, Attachment 3.

11. Investment Fee:

Annual 15 basis points.[9]

12. Income Tax Rate:

Composite Rate 20% (Federal 20%, State 0%).[10]

13. Asset Allocation:

Ameren Missouri requests a 50% equity / 50% fixed income allocation because, according to Ameren Missouri, it provides a better balance of expected funding success and downside protection than the current 65% equity / 35% fixed-income allocation.[11]

COMMENTS:

Introduction

Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri", "Company", or "Applicant") is a Missouri corporation with its principal office and place of business located at One Ameren Plaza, 1901 Chouteau Avenue, Saint Louis, Missouri 63103.[12] The Applicant provides electric and gas utility services in portions of Missouri as a public utility under the jurisdiction of the Missouri Public Service Commission (the "Commission").[13] Ameren Missouri supplies electric service to 1.2 million customers and natural gas service to 0.1 million customers in a 24,000-square-mile area in central and eastern Missouri, including the Greater St. Louis area.[14] Ameren Missouri is the owner and operator of Callaway, a nuclear generating unit, and the ISFSI, a spent fuel storage installation at the Plant.[15]

On September 1, 2026, Ameren Missouri submitted its application (the "Application") requesting acceptance of its triennial filing of cost estimates for Callaway decommissioning, including the ISFSI, and approval of the funding level of the Nuclear Decommissioning Trust Fund (the "Fund"). The Application included an updated Certificate

[9] Order Approving Stipulation and Agreement, May 29, 2025, EO-2023-0448, Page 13.
[10] Paragraph 13, the Application.
[11] Staff Data Request No. 0012.
[12] Paragraph 4, the Application.
[13] Ibid.
[14] S&P Capital IQ Pro.
[15] Paragraph 4, the Application.

of Corporate Good Standing as Attachment 1, TLG's 2026 Cost Study as Attachment 3, and WTW's funding adequacy model analysis as Attachment 4.

Background

Under federal law, the United States Nuclear Regulatory Commission ("NRC") establishes minimum funding requirements necessary for licensees to provide reasonable assurance that funds will be available for the decommissioning process.[16] However, federal regulations also provide that funding for the decommissioning of power reactors may also be subject to regulation by Federal or State Government agencies (e.g., the Federal Energy Regulatory Commission ("FERC") and State Public Utility Commissions) that have jurisdiction over rate regulations.[17] The NRC's federal regulations are in addition to, and not a substitution for, other requirements, and are not intended to be used by themselves or by other agencies to establish rates.[18]

The NRC defines the term "decommission" as follows in 10 C.F.R. § 50.2:

> *Decommission* means to remove a facility or site safely from service and reduce residual radioactivity to a level that permits –
>
> (1) Release of the property for unrestricted use and termination of the license; or
>
> (2) Release of the property under restricted conditions and termination of the license.

This Commission defines "decommissioning" and "decommissioning costs" as follows in 20 CSR 4240-20.070:

> (1) As used in this rule, decommissioning means those activities undertaken in connection with a nuclear generating unit's retirement from service to ensure that the final removal, disposal, entombment or other disposition of the unit and of any radioactive components and materials associated with the unit are accomplished in compliance with all applicable laws, and to ensure that the final disposition does not pose any undue threat to the public health and safety. Decommissioning includes the removal and disposal of the structures, systems and components of a nuclear generating unit at the time of decommissioning.

[16] 10 CFR 50.75(a) (2022); § 50.75 Reporting And Recordkeeping For Decommissioning Planning. | NRC.gov.
[17] Ibid.
[18] Ibid.

> (2) As used in this rule, decommissioning costs means all reasonable costs and expenses incurred in connection with decommissioning, including all expenses to be incurred in connection with the preparation for decommissioning, including, but not limited to, engineering and other planning expenses; and to be incurred after the actual decommissioning occurs, including, but not limited to, physical security and radiation monitoring expenses, less proceeds of insurance, salvage or resale of machinery, construction equipment or apparatus the cost of which was charged as a decommissioning expense.

In addition, 20 CSR 4240-20.070(4) establishes the frequency of filings with the Commission of information regarding the decommissioning trust fund, stating in pertinent part:

> Every three (3) years, utilities with decommissioning trust funds shall perform and file with the commission cost studies detailing the utilities' latest cost estimates for decommissioning their nuclear generating unit(s) along with the funding levels necessary to defray these decommissioning costs. These studies shall be filed along with appropriate tariff(s) effectuating the change in rates necessary to accomplish the funding required. In addition, the commission, at any time for just cause, may require a utility to file an updated decommissioning cost study, funding requirement, and associated tariff(s).

Filing History

Ameren Missouri has made its triennial filings on a timely basis since Callaway went into operation on December 19, 1984. In Ameren Missouri's Case Nos. EO-85-17 and ER-85-160, Ameren Missouri and the Staff stipulated that the decommissioning cost of Callaway was $120 million in 1983 dollars. As a result, Ameren Missouri's Missouri retail jurisdictional annual trust fund payment requirement was set at $2.9 million.[19]

In Case No. EO-91-300, which was Ameren Missouri's first filing pursuant to 20 CSR 4240-20.070,[20] a *Unanimous Stipulation and Agreement* was accepted by the Commission that identified the cost in 1990 dollars to immediately decommission Callaway as if it had completed 40 years of service. This cost was determined to be $347 million and as a result, Ameren Missouri's Missouri retail jurisdiction annual trust fund accrual and payment requirement was set at $6,214,184.[21] The increase in the cost estimate was due principally to the uncertainties existing at the time with the disposal of radioactive material.[22]

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[19] Order Approving Stipulation and Agreement, August 21, 1992, EO-91-300, Page 3.
[20] Prior to April 30, 2003, 4 CSR 240-3.185 governed Submission of Reports Pertaining to the Decommissioning of Electric Utility Plants.
[21] *Order Approving Stipulation and Agreement*, August 21, 1992, EO-91-300.
[22] Ibid.

Subsequent filings were made in Case Nos. EO-94-81, EO-97-86, EO-2000-205, and EO-2003-0083, in which the Commission accepted *Unanimous Stipulation and Agreements* that identified the costs in 1993, 1996, 1999 and 2002 dollars, respectively, to immediately decommission Callaway as if it had completed 40-years of service. These costs were identified as $371,511,680;[23] $419,975,000;[24] $509,451,856;[25] and $515,339,000,[26] respectively. In each of the four triennial decommissioning cost study cases the Company's Missouri retail jurisdiction annual trust fund accrual and payment requirement remained at $6,214,184, as that amount was determined to be adequate to fund decommissioning expenses.[27]

In Case No. EO-2004-0108, the Commission ordered an increase in Ameren Missouri's annual Missouri decommissioning expense and contribution amount from $6,214,184 to $6,486,378 to reflect the increased liability for decommissioning costs assumed by Missouri ratepayers as a result of the Metro East Property Transfer.[28] In Case No. EO-2004-0108, and subsequently, Case Nos. EO-2006-0098, and EO-2009-0081, a methodology was utilized by which Missouri ratepayers were responsible for less than 100% of Ameren Missouri's decommissioning liability.

In Case No. EO-2006-0098, a *Non-Unanimous Stipulation and Agreement* was accepted by the Commission which identified the costs in 2005 dollars to immediately decommission Callaway, as if it had completed 40 years of service, as being $586,515,200. Ameren Missouri's Missouri retail jurisdiction annual trust fund accrual and payment requirement remained at $6,486,378, as that amount was determined to be adequate for the funding of future decommissioning expenses.[29] In Case No. EO-2009-0081, the payment requirement remained the same after a *Unanimous Stipulation and Agreement* was accepted by the Commission which identified the costs in 2008 dollars as being $693,907,000 (which is 18.3% higher than the 2005 estimate of $586,515,200 and represents approximately a 5.76% annualized escalation rate over the 3-year period).[30]

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[23] *Order Approving Cost Estimates and Funding Levels for Nuclear Decommission Costs,* June 24, 1994, EO-94-81.
[24] Order Approving Stipulation and Agreement, December 1, 2002, EO-2003-0083.
[25] *Order Approving Stipulation and Agreement,* January 1, 2000, EO-2000-205.
[26] *Order Approving Stipulation and Agreement,* December 1, 2002, EO-2003-0083.
[27] Ibid.
[28] *Report and Order on Rehearing* in Case No. EO-2004-0108 contains a typographical error that transposed the second and third digits in the annual contribution amount to the Missouri jurisdictional subaccount. (*See* 13 Mo.P.S.C.3d at 297 and 304 compared to 13 Mo.P.S.C.3d at 296). Because this error has an insignificant impact on trust fund funding, Ameren Missouri used this actual ordered amount as its present annual contribution amount.
[29] *Non-Unanimous Stipulation and Agreement*, September 21, 2012, EO-2006-0098, Page 6.
[30] *Unanimous Stipulation and Agreement,* April 23, 2009, EO-2009-0081, Page 6.

The 2011 Cost Study estimated the decommissioning cost for the DECON alternative to be $754,498,000 in 2011 dollars, which was 8.7% higher than the 2008 estimate of $693,907,000 (Case No. EO-2009-0081).[31] Ameren Missouri's economic analysis found an annual contribution of $6,758,605 to the nuclear decommissioning trust fund to be reasonable.[32]

In File No. ER-2011-0028, Ameren Missouri commenced a methodology under which the Missouri jurisdictional demand allocator for Callaway was increased to 100% from the previous allocator of 98.38% used in Case No. EO-2009-0081; the annual accrual increased to $6,758,605. Callaway was treated as allocated 100% to the Missouri retail jurisdiction; municipal customers, sales, and costs were treated as off-system customers, sales, and costs. The Staff followed this methodology in the subsequent Ameren Missouri general rate case, File No. ER-2012-0166. The $6,758,605 of annual decommissioning expense accrual was included in the determination of Ameren Missouri retail customer rates approved by the Commission and the Missouri jurisdictional demand allocator was reflected as 100%.[33]

On August 15, 2014, Ameren Missouri filed, in File No. EE-2015-0046, a request for a seven (7) month extension of time to file its 2014 TLG Decommissioning Cost Study to no later than April 1, 2015, rather than September 1, 2014, due to its license extension request that was pending before the NRC and the potential impact of the request upon the necessary funding level of its decommissioning trust. The Staff recommended that the Commission grant Ameren Missouri its request for a variance from the Commission's rule. The Commission issued an order on March 4, 2015, granting Ameren Missouri's request for an extension of time to file pending decommissioning cost analysis. On April 1, 2015, Ameren Missouri filed in Case No. EO-2015-0253 its application, a 2014 TLG "Decommissioning Cost Analysis for the Callaway Energy Center", not including the cost of decommissioning the ISFSI, and Ameren Missouri's analysis of the required funding level under a 2044 operating license expiration date.

The following display provides the parameters of the EO-2015-0253 filing as well as the Company's three subsequent filings, along with the dates of the corresponding Commission orders approving each case's Non-Unanimous Stipulation and Agreement setting the annual contribution amount:

[31] August 2011 *TLG Decommissioning Cost Analysis for the Callaway Energy Center*, Attachment 1, The Application in EO-2012-0070; August 2008 TLG Decommissioning Cost Analysis for the Callaway Energy Center, Attachment 1, The Application in EO-2009-0081.
[32] Ameren Missouri Cost Study, Attachment 2, The Application in EO-2012-0070.
[33] Order approving Stipulation and Agreement, October 3, 2012, EO-2012-0070, Page 4.

Application Filing Date	Case No.	License Expiration	Total Decommission Cost	Year Dollars	Agreed Total Annual Contribution	Commission Approval Date
04/01/2015	EO-2015-0253	2044	$ 864,734,000	2014	$ 6,758,605	04/06/2016
09/01/2017	EO-2018-0051	2044	$ 943,465,000	2017	$ 6,758,605	01/23/2018
11/05/2020	EO-2021-0050	2044	$ 1,046,835,000	2020	$ 6,758,605	02/24/2021
12/01/2023	EO-2023-0448	2044	$ 1,097,947,000	2023	$ 0	05/29/2025

In Case No. EO-2023-0448, Ameren Missouri filed its triennial decommissioning cost study on December 1, 2023. The 2023 study estimated the total cost to decommission Callaway and the ISFSI at $1,097,947,000 in 2023 dollars. The Commission approved a Non-Unanimous Stipulation and Agreement on May 29, 2025, which suspended the Company's Missouri retail jurisdictional annual decommissioning expense accruals and trust fund payments. In that case, Ameren Missouri started using a stochastic model approach to evaluate funding adequacy, replacing the previous deterministic model approach.[34] The Company's Missouri retail jurisdictional annual decommissioning expense accruals and trust fund payments were suspended as shown in the compliance tariffs approved by the Commission in File No. ER-2024-0319.[35] The Commission also approved a 100% Missouri jurisdictional allocator and continued the 65% equities and 35% bonds asset allocation for the Nuclear Decommissioning Trust Fund. In addition, the Commission approved a $50 million trigger, requiring Ameren Missouri to request reinstatement of customer contributions if the trust fund is estimated to be underfunded by more than $50 million at the time of the next triennial filing. Under this provision, Ameren Missouri may request the resumption of customer contributions in a triennial filing if the estimated decommissioning costs exceed the net value of the Nuclear Decommissioning Trust Fund by more than $50 million.[36]

Decommissioning Cost Study

Ameren Missouri's current analysis of the cost to decommission Callaway is an update of the study that the Company initially performed in 1993. Ameren Missouri contracted with TLG to perform the site-specific cost study to determine the estimated cost for decommissioning Callaway. According to the Application, TLG is an industry leader in

[34] A deterministic model uses fixed input values and assumptions to produce a single outcome. In contrast, a stochastic model incorporates random variables and probability distributions to account for uncertainty and generate a range of possible outcomes and their associated probabilities. In the application Ameren Missouri States that the stochastic model used in this analysis simulated 5000 scenarios varying key capital market parameters.
[35] Report & Order in EO-2023-0448.
[36] Ibid.

nuclear power plant decontamination and decommissioning planning, cost estimating, and project field supervision and has prepared and updated decommissioning cost estimates for the vast majority of nuclear generation units in the country. TLG has also provided engineering and field services for contaminated facilities including estimates of decommissioning costs for nuclear generating units since 1982. TLG is the company that prepared Callaway's decommissioning cost estimates filed with and approved by the Commission in 1993, 1999, 2002, 2005, 2008, 2011, 2015, 2018, 2020, and 2023, as well as the ISFSI decommissioning cost estimates in 2015, 2018, 2020, and 2023.

Staff does not find any major concerns with the 2026 cost study prepared by TLG. According to the 2026 cost study, the total decommissioning cost estimate is $1,151,991,000 in 2026 dollars based on TLG's projected cost to decommission the Plant and the ISFSI using the DECON alternative process.[37] This estimate assumes a 60-year plant operating life and reflects the use of off-site, low-level radioactive waste processing to minimize the volume designated for controlled disposal.[38] The 2026 amount represents an overall increase of approximately 4.92% over the 2023 estimate (or an average annual increase of approximately 1.64% over the three-year period).

Funding Adequacy Analysis

On September 1, 2026, Ameren Missouri submitted its Application – including WTW's funding adequacy model that evaluates the current funding under various economic and market assumptions and a summary of this model's findings included in Attachment 4.[39] The Company's recommendation not to reinstitute customer contributions at this time is consistent with 20 CSR 4240-20.070, because the amount being collected into the trust fund is neither greater nor lesser than the amounts necessary to carry out the purposes of the trust fund.[40] Ameren Missouri states that WTW's analysis showed that, in approximately 93% of the 5,000 modeled scenarios, sufficient funds would be available to decommission Callaway under the DECON method, assuming decommissioning begins in 2044.[41]

The Applicant has also requested a change to the current fund allocation of 65% equity and 35% debt/fixed income.[42] Ameren Missouri is recommending a 50% equity and 50% debt/fixed income allocation because the revised allocation increases the modeled probability of funding success while reducing equity exposure and the associated risk of market volatility.[43] Under the recommended 50% equity and 50% debt/fixed income

[37] Ameren Missouri Cost Study, Attachment 3, The Application, Page 2.
[38] Paragraph 10, The Application.
[39] Paragraph 12, Application.
[40] Paragraph 15, The Application.
[41] Paragraph 14, The Application.
[42] Paragraph 17, The Application.
[43] Ibid.

allocation, the estimated chance of funding success increases to 95.1% compared to 93.2% under the current 65% equity and 35% debt/fixed income allocation.[44] Further, the analysis studied the DECON alternative assuming a license extension, showing the probability of having sufficient funds increased to 96.2% with the current allocation, and 97.5% with the new allocation.[45] Overall, Ameren Missouri's recommended fund allocation shows a higher modeled probability of funding success than the current allocation.

On May 6, 2025, Ameren Missouri also filed a letter of intent for a license renewal with the Nuclear Regulatory Commission, which Staff considered when evaluating the proposed fund allocation.[46] The recommended allocation therefore provides a better balance between preserving adequate funding for decommissioning and avoiding an unnecessary buildup of excess trust assets.[47] According to the Company, this result is primarily driven by two factors: recent superior equity market performance, which has strengthened the current funded position of the trust, and a significant decrease in the assumed liability inflation rate as estimated by TLG.[48]

Staff then took into consideration multiple funding allocation scenarios. Staff also considered a 0% equity, 100% debt/fixed income allocation. Currently there are no customer contributions, and the Company's analysis indicates that the decommissioning fund is adequately funded. A 0% equity and 100% debt/fixed income allocation at first glance would be considered safe due to the absence of equity-market exposure. While a 0% equity and 100% debt/fixed income allocation would reduce equity risk, it would also materially reduce long-term return potential and does not produce the highest modeled probability of success.[49] Additionally, there is substantial uncertainty that remains regarding future decommissioning costs, inflation levels, market performance, tax obligations, and other economic conditions that may materially affect the Trust Fund over the next two decades. For these reasons, Staff does not recommend a 0% equity and 100% debt/fixed income allocation.

Staff also considered a 30% equity and a 70% debt/fixed income allocation. Because decommissioning activities are not anticipated to begin for approximately eighteen years or more due to the potential for license extension, the Company believes the Trust Fund should remain invested in a manner that protects its purchasing power over an extended period.[50] Equity investments have historically served as an accepted and effective means of

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[44] Ibid.
[45] Ibid.
[46] https://www.nrc.gov/licensing-applications/operating-reactor-licensing/reactor-license-renewal/status-subsequent-license-renewal-applications
[47] Ibid.
[48] Ibid.
[49] Ibid.
[50] Office of the Public Counsel ("OPC") Data Request No. OPC 3000.

preserving long-term real capital value in inflationary environments.[51] While fixed-income securities can provide stability and reduce short-term volatility, a portfolio that becomes overly concentrated in fixed-income assets may be less effective in maintaining the real value of Trust Fund assets over a multi-decade investment horizon.[52] A 30% equity and 70% debt/fixed income fund allocation would reduce equity exposure further than the proposed 50% equity and 50% debt/fixed income allocation. Given the current 65% equity, 35% fixed income/debt, a 30% equity and 70% debt/fixed income allocation would be a major change in the portfolio allocation. A 50% equity and 50% debt/fixed income allocation would be a more conservative approach than the current allocation while retaining greater exposure to long-term equity returns than a 30% equity and 70% debt/fixed income allocation.

This is the second time the Applicant has used a stochastic model for the funding adequacy analysis in an Ameren Missouri nuclear decommissioning case. In prior cases, the funding adequacy was tested by a model with predetermined assumptions providing the "best available" information on which to estimate an appropriate annual contribution amount agreed upon by Staff and Ameren Missouri. The old model relied heavily on the assumptions set forth in Case No. EO-91-300, as well as the decommissioning cost estimates provided by TLG. The calculation of an annual decommissioning expense and contribution amount is sensitive to varying forecasts of future decommissioning inflation and investment returns. Forecasted nominal investment returns are dependent upon future investment policy and on forecasts of real returns on bond investments, equity premiums over and above bond investment returns and on general inflation levels.

While Staff cannot fully audit the 5,000-scenario analysis because the underlying model and scenario-level results were not made available to Staff, Staff does not have any concerns with the credibility of WTW or its use of a stochastic model. WTW used stochastic modeling that projects 5,000 future economic scenarios and varies equity, government/credit bond and cash returns, liability inflation, taxes and decommissioning costs. The model evaluates a range of potential outcomes rather than relying on a single deterministic return assumption.[53] In addition, Staff agrees with Ameren Missouri that customer contributions should not be reinstated at this time for the decommissioning of Callaway. As required by 20 CSR 4240-20.070(4), the next update will be filed in 2029, at which time the decommissioning fund will be examined again for the appropriate funding level.

Additionally, WTW conducted an analysis of the probability of success for 24 nuclear reactor units studied by WTW over the last ten years, with a median probability of success of 93%.[54]

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[51] Ibid.
[52] Ibid.
[53] Staff Data Request No. 0002.
[54] Attachment 4, The Application.

Ameren Missouri's current probability of success is 93.2% under the existing allocation and 95.1% under the proposed allocation. If a license extension is obtained, the probability of funding success rises to 96.2% under the current allocation and 97.5% under the proposed allocation.[55]

Lack of Staff Analysis to Confirm

Staff has not performed an analysis of the cost of decommissioning Callaway. Staff does not have the data necessary to either support or challenge the cost estimate to decommission Callaway.[56] Staff was informed in data requests that the WTW capital market model is proprietary and is not available as an executable Excel workbook.[57] Staff did not find any evidence in the information reviewed that would warrant rejecting the estimated cost of decommissioning Callaway, which per WTW is $1,151,991,000 in 2026 dollars.[58]

The Company believes that no customer contributions are currently needed to provide sufficient funds to decommission Callaway at the expiration of its current operating license in 2044. Staff has not independently analyzed the annual contribution requirement to verify its adequacy. According to Ameren Missouri, the WTW model is proprietary and cannot be provided in a format that would allow Staff to replicate the analysis.[59] However, Staff has not identified evidence establishing that additional customer contributions are necessary at this time. Accordingly, Staff does not object to maintaining the current suspension of customer contributions, subject to continued review of the decommissioning cost estimate and funding level in future proceedings.

Cost of service

As per the Report and Order in Case No. EO-2023-0448, Ameren Missouri can only request the resumption of customer contributions in a triennial filing if there is a $50 million deficit between the estimated decommissioning costs and the net value of the NDF. No such deficit exists at this time. Therefore, no annual decommissioning expense accrual or trust fund contribution is expected to be included in the Company's current cost of service for ratemaking purposes.

[55] Ibid.
[56] Staff Data Request No. 0009.
[57] Ibid.
[58] Ameren Missouri Cost Study, Attachment 3, The Application, Page 2.
[59] Staff Data Request No. 0009.

Staff Recommendation

Staff recommends that the Commission approve Ameren Missouri's decommissioning cost estimate for the Callaway Energy Center and the ISFSI included in Ameren Missouri's Application. Staff has not independently verified the adequacy of the Nuclear Decommissioning Trust Fund because the underlying WTW model and scenario-level results were not made available in a form that would allow Staff to replicate the analysis. However, Staff has not identified evidence establishing that additional customer contributions are necessary at this time. Accordingly, Staff recommends that the Commission maintain the current suspension of customer contributions to the Nuclear Decommissioning Trust Fund and approve a target allocation of 50% equity and 50% debt/fixed-income investments prior to the de-risking period, subject to the conditions below.

(1) Ameren Missouri will file the proper decommissioning trust fund annual contribution requirement, along with evidence and testimony in support thereof, in its next rate case for ratemaking purposes.

(2) No annual decommissioning expense accrual or Nuclear Decommissioning Trust Fund contribution shall be included in Ameren Missouri's current cost of service for ratemaking purposes.

(3) The annual decommissioning contribution requirement remains subject to modification by the Commission in a subsequent general rate proceeding or other proceeding authorized by law, based on changed circumstances and consistent with Section 393.292, RSMo.

(4) Ameren Missouri shall request reinstatement of customer contributions to the Nuclear Decommissioning Trust Fund if, at the time of its next triennial filing, the estimated decommissioning costs exceed the net value of the Nuclear Decommissioning Trust Fund by more than $50 million, consistent with the Commission's Report and Order in Case No. EO-2023-0448.

(5) Ameren Missouri's Nuclear Decommissioning Trust Fund asset allocation shall be reviewed in its next triennial filing, taking into account economic conditions at the time that may affect the probability of having a fully funded trust.

(6) Ameren Missouri shall within 30 days of filing with the Nuclear Regulatory Commission provide a status report on the progress of the operating license extension process, including any resulting changes to the anticipated decommissioning timeline and funding adequacy.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of Decommissioning Cost Estimate for Callaway Energy Center and Funding Level of Nuclear Decommissioning Trust Fund	)))))	Case No. EO-2027-0004

AFFIDAVIT OF JOHNNY GARCIA

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

COMES NOW JOHNNY GARCIA, and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Report;* and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

JOHNNY GARCIA

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 26th day of October 2026.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: April 04, 2029
Commission Number: 12412070

Notary Public