

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

Application of Union Electric Company d/b/a)
Ameren Missouri for Approval of Decommissioning)
Cost Estimate for Callaway Energy Center and Funding) Case No. EO-2012-
Level of Nuclear Decommissioning Trust Fund.)

**APPLICATION FOR APPROVAL OF DECOMMISSIONING COST ESTIMATE FOR
CALLAWAY ENERGY CENTER AND FUNDING LEVEL OF NUCLEAR
DECOMMISSIONING TRUST FUND**

COMES NOW Union Electric Company, d/b/a Ameren Missouri (Ameren Missouri or the Company), and pursuant to 4 CSR 240-3.185(3), hereby respectfully requests that the Missouri Public Service Commission (Commission) approve Ameren Missouri's decommissioning cost estimate and the continuation of the funding level of its nuclear decommissioning trust fund at the current \$6,758,605 annual amount. Ameren Missouri further requests that the Commission find that the \$6,758,605 annual funding level of its decommissioning trust fund is included in Ameren Missouri's current cost of service for ratemaking purposes and confirm that this funding level is based on the parameters and assumptions stated in this Application.

In support thereof, Ameren Missouri states the following:

BACKGROUND

1. Ameren Missouri is a Missouri corporation, in good standing in all respects, with its principal office and place of business located at 1901 Chouteau Avenue, St. Louis, Missouri 63103. Ameren Missouri is engaged in providing electric and gas service in portions of Missouri as a public utility under the jurisdiction of the Commission. Ameren Missouri is the owner and operator of the Callaway Energy Center, a nuclear generating unit whose decommissioning trust fund is the subject of this Application.

2. Attached to this Application is a Certificate of Good Standing. There is already on file with the Commission a certified copy of Ameren Missouri's Restated Articles of Incorporation (see Commission Case No. EA-87-105), and a copy of Ameren Missouri's Fictitious Name Registration as filed with the Missouri Secretary of State's Office (see Commission Case No. EN-2011-0069). Said documents are incorporated herein by reference and made a part hereof for all purposes.

3. Pleadings, notices, orders and other correspondence concerning this Application should be addressed to:

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4. Ameren Missouri does not have any pending action or unsatisfied judgments or decisions against it from any state or federal agency or court which involve customer service or rates, which action, judgment or decision has occurred within the last three (3) years, except the following cases: appeal of Case No. ER-2008-0318 (SD 30865, currently pending in the Missouri Court of Appeals, Southern District), appeal of Case No. ER-2010-0036 (10AC-CC00474, currently pending the Circuit Court of Cole County), appeal of Case No. ER-2011-0028 (WD 74172, currently pending in the Missouri Court of Appeals, Western District), and appeal of Case No. ER-2010-0255 (Case No. 11AC-CC00236, currently pending in the Circuit

Court of Cole County). Furthermore, Ameren Missouri does not have any annual report or assessment fees that are overdue.

BASIS FOR FILING

5. 4 CSR 240-3.185(3) states, in part, the following:

On or before September 1, 1990, and every three (3) years after that, 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.

2011 COST STUDY

6. Ameren Missouri contracted with TLG Services, Inc. (TLG) to perform, under the direction of Ameren Missouri, the site specific cost study to determine the estimated cost for decommissioning the Callaway Energy Center. Since 1982, TLG has provided engineering and field services for contaminated facilities including estimates of decommissioning costs for nuclear generating units. In fact, TLG is an industry leader in nuclear power plant decontamination and decommissioning planning, cost estimating, and project field supervision and they have prepared and updated decommissioning cost estimates for the vast majority of nuclear generation units in the country. TLG also is the company that prepared the decommissioning cost estimate that was filed with and approved by the Commission in 1993, 1999, 2002, 2005 and 2008.

Attachment 1, which is attached hereto and made a part hereof for all purposes, is the updated decommissioning cost estimate prepared by TLG, titled *Decommissioning Cost Analysis for the Callaway Energy Center*. TLG estimates the cost to decommission the Callaway Energy Center employing the DECON alternative as \$754,500,000 in 2011 dollars.

NECESSARY ANNUAL FUNDING LEVEL

7. Ameren Missouri's analysis of the required annual funding level for the Missouri jurisdictional sub account is based on the premise that the current annual contribution to the decommissioning trust should be changed only if that annual contribution continued over the licensed life at the Callaway Energy Center does not result in a final trust account balance which is just sufficient to cover the estimated decommissioning cost given in Attachment 1 under a reasonable set of economic, financial, and investment assumptions. As one would expect, the calculation of an annual decommissioning expense and contribution amount adequate to cover future decommissioning liabilities is sensitive to varying forecasts of future decommissioning inflation and investment returns. Forecasted nominal investment returns are dependent on 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. Since the determination of an annual decommissioning contribution can be sensitive to these various factors, the Company and the Commission Staff have jointly developed a "Zone of Reasonableness" model that computes the required annual decommissioning contribution within a "reasonable" range of economic and financial parameters.

Attachment 2, Ameren Missouri's analysis of the required funding level (a five-page document entitled "Ameren Missouri – Callaway Energy Center Tax-Qualified Nuclear Decommissioning Trust Fund Projection – Missouri Jurisdiction") is attached hereto and made a part hereof for all purposes.

ZONE OF REASONABLENESS MODEL ASSUMPTIONS

8. The jointly-developed "Zone of Reasonableness" model computes "Optimistic," "Expected" and "Conservative" annual funding levels required for the future decommissioning

liability to be fully funded at various decommissioning inflation rates. Previously, the Commission ordered Ameren Missouri to contribute \$6,758,605 to the Missouri jurisdictional sub account. In support of this application, the “Zone of Reasonableness” model was used to verify the adequacy of that annual funding level. Basic input parameters regarding the computation of the “Optimistic,” “Expected” and “Conservative” contribution boundaries that form the “Zone of Reasonableness” include:

- Beginning value of the fund (as of 6/30/2011)

Missouri jurisdictional sub-account	\$325,687,167
Wholesale (FERC) jurisdictional sub-account	9,510,264
Total fund	\$ 335,197,431
- Total decommissioning cost estimate: \$ 754,500,000
- Base year of the cost estimate: 2011
- Missouri jurisdictional demand allocator 100%¹
- Federal income tax rate: 20%
- State income tax rate: 0%
- Projected investment management and trust fees: 15.00 basis points
- Asset allocation: 65% equities and 35% bonds

Three different sets of assumptions were made for the following parameters, from which the “Conservative,” “Expected” and “Optimistic” contribution boundaries were derived:

- Real rate of return on bonds:
 - 3.500 % for the “Conservative” contribution boundary,
 - 4.000 % for the “Expected” contribution boundary,
 - 4.250 % for the “Optimistic” contribution boundary.

¹ As per ER-2011-0028.

- General inflation level (CPI):
 - 2.000 % for the “Conservative” contribution boundary,
 - 2.500 % for the “Expected” contribution boundary,
 - 3.000 % for the “Optimistic” contribution boundary.
- Equity premium over bonds:
 - 4.000 % for the “Conservative” contribution boundary,
 - 4.500 % for the “Expected” contribution boundary,
 - 5.000 % for the “Optimistic” contribution boundary.
- Year in which divestiture from equity investments occurs:
 - 2021 for the “Conservative” contribution boundary,
 - 2022 for the “Expected” contribution boundary,
 - 2023 for the “Optimistic” contribution boundary.

ZONE OF REASONABLENESS MODEL RESULTS

9. As a basis for recommending that the current annual contribution amount remain unchanged, the Company calculated the decommissioning inflation values for which an annual funding level of \$6,758,605 would be adequate under the economic and financial assumptions associated with the “Optimistic,” “Expected” and “Conservative” contribution boundaries of the zone of reasonableness model. These decommissioning inflation values are, respectively, 3.480%, 2.625% and 1.620%. Thus, if the economic and financial conditions assumed for the “Optimistic” scenario are actually experienced, an annual contribution of \$6,758,605 would be adequate up to a decommissioning inflation rate of 3.480%. Should the economic and financial conditions assumed for the “Conservative” scenario be experienced, an annual contribution of \$6,758,605 would be adequate up to a decommissioning inflation rate of 1.620%. If the

economic and financial conditions assumed for the “Expected” scenario are actually experienced, an annual contribution of \$6,758,605 would be adequate up to a decommissioning inflation rate of 2.625%.

The “Zone of Reasonableness” model used in this analysis is presented in Attachment 2. Page 1 of Attachment 2 details the basic input assumptions on which the proposed annual contribution is based. Page 2 of Attachment 2 illustrates the escalation of the decommissioning expense cash flows at the 2.625% decommissioning inflation rate, which is the maximum rate at which the proposed annual contribution level of \$6,758,605 would be adequate under the “Expected” contribution boundary assumptions. Page 3 of Attachment 2 contains a spreadsheet illustrating how the proposed annual contribution amount will adequately cover decommissioning expenses with a \$0 balance upon completion at a decommissioning inflation rate of 2.625% and the economic and financial assumptions associated with the “Expected” contribution boundary. Page 4 of Attachment 2 illustrates the assumptions applicable to the “Optimistic,” the “Expected” and to the “Conservative” contribution boundaries and the decommissioning inflation rates for which the proposed annual contribution would be adequate under each of these sets of assumptions. Page 5 of Attachment 2 again illustrates the assumptions applicable to the “Optimistic,” “Expected” and “Conservative” contribution boundaries and the annual contributions that would be required under each of these sets of assumptions at varying decommissioning inflation levels.

In conclusion, the calculations set forth in Attachment 2 validate Ameren Missouri’s request to continue funding the decommissioning trust fund using the same annual amount previously authorized by the Commission. Because Ameren Missouri is not seeking a change to the funding level, there is no need for Ameren Missouri to file new tariffs.

10. Because it is unnecessary for Ameren Missouri to change the funding level of the decommissioning trust, and unnecessary to file new tariffs, Ameren Missouri does not request a hearing, nor does it believe one is required.

11. In its orders in the early cases regarding the establishment of the decommissioning trust fund (Case No. EO-85-17 and Case No. ER-85-160), the Commission stated:

The Commission, though, requires that UE establish the external fund to take the maximum advantage of the 1984 tax law and follow the requirements of the tax law in making investments for the fund.

Consequently, Ameren Missouri is required by Commission order to fund the future decommissioning liability through contributions to the tax-qualified trust fund. In order to make the proposed contributions to the tax-qualified trust fund, Ameren Missouri must demonstrate to the Internal Revenue Service (IRS) that the proposed contributions are consistent with sections 468A of the Internal Revenue Code and are based on reasonable assumptions. *See* Treasury Regulations § 1.468A-3T(a)(3). Under Treasury Regulations, section 1.468A-3T(a)(4), which was promulgated in December 2007, Ameren Missouri can satisfy this obligation by documenting that the proposed contributions are calculated using the decommissioning assumptions used by the Commission in its most recent order.

Specifically, Treasury Regulations, section 1.468A-3 (e)(2)(v), provides that a taxpayer such as Ameren Missouri must disclose to the IRS:

Where applicable, an identification of each public utility commission that establishes or approves rates for the furnishing or sale by the taxpayer of electric energy generated by the nuclear power plant, and, for each public utility commission identified –

(A) Whether the public utility commission has determined the amount of decommissioning costs to be included in the taxpayer's cost of service for ratemaking purposes;

(B) The amount of decommissioning costs that are to be included in the taxpayer's cost of service for each taxable year under the current determination and amounts that otherwise are required to be included in the taxpayer's income under section 88 and the regulations thereunder;

(C) A description of the assumptions, estimates and other factors used by the public utility commission to determine the amount of decommissioning costs;

(D) A copy of such portions of any order or opinion of the public utility commission as pertain to the public utility commission's most recent determination of the amount of decommissioning costs to be included in cost of service; and

(E) A copy of each engineering or cost study that was relied on or used by the public utility commission in determining the amount of decommissioning costs to be included in the taxpayer's cost of service under the current determination.

In order for Ameren Missouri to comply with the requirements of the foregoing Treasury Regulations, Ameren Missouri requests that the Commission state in its Report and Order for this case that the annual decommissioning expense and contribution to the Callaway Energy Center Tax Qualified Nuclear Decommissioning Trust Fund in the amount of \$6,758,605 is included in Ameren Missouri's cost of service for ratemaking purposes and acknowledge that this annual decommissioning expense and contribution amount is based on Attachment 1, the August 2011, *Decommissioning Cost Analysis for the Callaway Energy Center*, and on the parameters and assumptions contained in Attachment 2 and summarized below:

- The after-tax value of Missouri jurisdictional sub-account of the Callaway Energy Center Tax Qualified Nuclear Decommissioning Trust Fund as of June 30, 2011 was \$335,197,431.
- The proposed expense and contribution amount is to be effective as of January 1, 2012.
- The present, total decommissioning cost estimate is \$754,500,000 in terms of 2011 dollars.

- The Missouri jurisdictional allocator is 100%.
- The federal income tax rate is 20%.
- The state income tax rate is 0%.
- Investment management and trust fees are estimated at 15 basis points annually.
- The real return on bonds is assumed to be 4.000%.
- The equity premium is assumed to be 4.5%.
- An asset allocation of 65% equities and 35% bonds is assumed to exist through 2022, at which time all equity investments will be divested.
- An inflation rate of 2.5% is assumed for general (CPI) inflation.
- Decommissioning cost escalation is assumed to be 2.625%.
- Pre-tax and expense nominal returns on the fund's investments will be 9.425% through 2022, and 6.500% thereafter. The average pre-tax and expense nominal return over the life of the fund will be 8.4599%.

WHEREFORE, Ameren Missouri requests that the Commission: (1) approve Attachments 1 and 2, which are Ameren Missouri's estimate of decommissioning costs and the funding level necessary for said costs, and (2) specifically find that the annual funding level contributed to the decommissioning trust fund is included in Ameren Missouri's current cost of service for rate-making purposes and is based on the underlying assumptions contained in Attachments 1 and 2, as summarized above.

Respectfully submitted,

/s/ Wendy Tatro
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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and copy of the foregoing Notice of Dismissal was served on all parties of record via United States first-class mail, postage pre-paid, or by electronic mail (e-mail) on this 1st day of September, 2011.

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