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Fund

Witness: Daniel E. Deschler
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File No.: EO-2023-0448

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MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. EO-2023-0448

SURREBUTTAL TESTIMONY

OF

DANIEL E. DESCHLER

ON

BEHALF OF

UNION ELECTRIC COMPANY

D/B/A AMEREN MISSOURI

St. Louis, Missouri December 2024

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1		I. <u>INTRODUCTION</u>			
2	Q.	Please state your name and business address.			
3	A.	My name is Daniel E Deschler. My business address is 1901 Chouteau			
4	Avenue, St. 1	Louis, Missouri, 63103.			
5	Q.	Are you the same Daniel E. Deschler that submitted direct testimony in			
6	this case?				
7	A.	Yes, I am.			
8	Q.	To what testimony or issues are you responding?			
9	A.	I am responding to the rebuttal testimony of Mr. Randall Jennings from the			
10	Missouri Pub	olic Service Commission Staff ("Staff") as well as Mr. David Murray from the			
11	Office of Pub	olic Counsel ("OPC"). I will address the criticisms that Staff and OPC disagree			
12	with my con-	clusions that the funding level requested is reasonable and consistent with the			
13	mandate that	the trust should only collect funds necessary and adequate to decommission the			
14	Callaway Energy Center ("Callaway"). Additionally, I will address OPC's recommendation to				
15	exclude Site I	Restoration Costs outlined in the TLG Services Inc. Decommissioning Cost Study			
16	("TLG Repor	t").			
17	Q.	Are you including any schedules with your testimony?			
18	A.	Yes, I am including: Schedule DED-SR1 – NRC March 2023 10CFR 50.75			
19	Filing Status	of Plant Decommissioning Funding.			

1 II. The Decommissioning Cost Estimate prepared by TLG is reasonable.

	2	Q.	Is the amount of	estimated in	2023 dollars	for the	decommissioning	costs an
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- 3 issue in this case?
- 4 A. While Staff does not have major concerns with the 2023 cost study prepared by
- 5 TLG, OPC takes issue with the inclusion of Site Restoration costs in the TLG Report.
- 6 Q. Is it reasonable to included Site Restoration costs?
- 7 A. Yes, as explained further below, Site Restoration costs included in the TLG
- 8 Report are similar to the costs described under the Missouri Public Service Commission's
- 9 ("Commission") rules.
- Q. Please explain the issue raised by OPC regarding the Site Restoration
- 12 Costs.

- A. OPC claims the TLG Report includes costs that may not be incurred when
- 14 Callaway is decommissioned.² OPC refers to one reference of a "grassy plain" in the TLG
- Report and contends that the TLG Report "assumes that the Callaway site will be returned to a
- 16 'grassy plain' state." OPC concludes that "approximately \$100.1 million of the
- decommissioning costs assume that the Callaway site would no longer be used and returned to
- 18 a "grassy plain."⁴
- 19 Q. Does the TLG Report define "grassy plain?"
- A. No. The TLG Report uses the term once in Section 3, page 14 of 34 and this
- 21 section states:

¹ Jennings Rebuttal p. 6, ll 12-15; Murray Rebuttal pgs. 14-16

² Murray Rebuttal p. 14, ll 18-29.

³ *Id.* 11. 20-21.

⁴ *Id.* 11 23-24.

1 2 3 4	The estimates presented herein include the dismantling of the major structures to three feet below grade level, backfilling and the collapsing of below grade voids, and regrading such that the site upon which the power block and supplemental structures are located is transformed into a "grassy plain."				
5 6	The reference to the "grassy plain" clearly is a description of the site after the				
7	decommissioning work is completed. The actual definition for "Site Restoration" is a				
8	follows:				
9 10 11 12 13 14	"Site Restoration" is used to capture costs associated with the dismantling and demolition of buildings and facilities demonstrated to be free from contamination. This includes structures never exposed to radioactive materials as well as those facilities that have been decontaminated to appropriate levels Structures are removed to a depth of three feet below grade and backfilled to conform to local grade. These costs are identified in Tables 3.1c and 3.2c.5				
16	Q. Is the Company basing its funding level on cost estimates that include				
17	"grassy plain?"				
18	A. No. The TLG Report outlines how Site Restoration is defined, and the Sit				
19	Restoration costs are related to the costs associated with "the dismantling and demolition of				
20	buildings and facilities demonstrated to be free from contamination. This includes structure				
21	never exposed to radioactive materials, as well as those facilities that have been decontaminate				
22	to appropriate levels. Structures are removed to a depth of three feet below grade and backfille				
23	to conform to local grade. These costs are identified in Tables 3.1c and 3.2c."6				
24	Q. Does the TLG Report define Site Restoration costs similar to the				
25	Commission's Rules?				
26	A. Yes, the Commission rules as outlined above address the removal and disposa				
27	of structures, systems, and components of a nuclear generating unit. The TLG Report's define				

⁵ Attachment 3, Section 3, page 19 of 34: pgs 24 and 32. ⁶ Attachment 3, Section 3, page 19 of 34: pgs 24 and 32.

- 1 scope for Site Restoration is consistent with the Commission's rules and scope for
- 2 decommissioning work.
- 3 Q. In past triennial reviews for Callaway, has the Commission found the Site
- 4 Restoration costs unreasonable?
- 5 A. No.
- 6 Q. What is the goal of the decommissioning process?
- 7 A. The TLG Report states the "ultimate objective of the decommissioning process
- 8 is to reduce the inventory of contaminated and activated material such that the license can be
- 9 terminated. The Nuclear Regulatory Commission (NRC) provided general decommissioning
- requirements in a rule adopted on June 27, 1988."⁷ The TLG Report explains the NRC set forth
- technical and financial criteria for decommissioning nuclear facilities to address the planning
- 12 needs, timing funding methods, and environmental review requirements for decommissioning.
- 13 As the TLG Report notes, "NRC will terminate the site license when it determines that the site
- remediation has been performed in accordance with the license termination plan, and that the
- terminal radiation survey and associated documentation demonstrate that the facility is suitable
- for release." Additionally, the TLG Report explains that "[l]ocal building codes and state
- environmental regulations will dictate the next step in the decommissioning process, as well as
- the owner's own future plans for the site."9
- 19 Q. Does the Commission have regulations regarding the decommissioning
- 20 process?

⁷ Attachment 3, TLG Report, page viii of xxi, citing the U.S. Code of Federal Regulations, Title 10, Parts 30, 40, 50, 51, 70 and 72 "General Requirements for Decommissioning Nuclear Facilities," Nuclear Regulatory Commission, Federal Register Volume 53, Number 123 (p 24018 et seq.), June 27, 1988.

⁸ Attachment 3, TLG Report, Section 3, page 14 of 34.

⁹ *Id*.

- 1 A. Yes, as Staff also points out, the Commission has defined decommissioning costs under its rules.¹⁰ Commission Rule 20 CSR 4240-20.70(1) provides:
 - (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.

Emphasis added.

Q. What are the Commission's goals for the decommissioning process?

A. As noted under the rule above, one of the Commission's goals for the decommissioning is to ensure that the decommissioning activities do not pose any undo threat to public health and safety. Accordingly, the TLG Report includes costs that are estimated to be incurred based on both federal and state laws and regulations, including Site Restoration costs. As I noted in my direct testimony, TLG is also the company that prepared decommissioning cost estimates filed with and approved by the Commission since 1993. TLG has included Site Restorations costs in the previous reports. TLG also notes that its costs estimates reflect lessons learned from the decommissioning of other plants beginning in 1989.

¹⁰ Jennings Rebuttal pgs. 4-5 ll 18-27.

¹¹ Attachment 3, TLG Report at page xii of xxi citing to the "Low-Level Radioactive Waste Policy Act of 1980," Public Law 96-573, 1980 and its 1985 Amendments, noting that the states became ultimately responsible for the disposition of low-level radioactive waste generated within their own borders.

¹² Deschler Direct at p. 5, ll 12-22.

¹³ Attachment 3, TLG Report page xii of xxi.

Daniel E. Deschler 1 Is OPC's adjustment to remove approximately 10.6% of the \$1.098 billion Q. 2 cost to decommission associated with restoring the site reasonable? 3 A. No. For the first time since the triennial reviews began in 1992, OPC is implying 4 Ameren Missouri is wrongly interpreting Missouri law and the Commission's rules and the 5 removal of the structures on the site at Callaway is not allowed under the decommissioning 6 framework. As I noted above, the TLG Report defines Site Restoration consistent with Missouri 7 Rules. 20 CSR 4240-20.70(1) and (2). OPC implies that the funds for decommissioning only 8 cover funding federal decommissioning expenses because the federal regulations control the 9 license termination. However, OPC ignores the interplay between state and federal law as it 10 relates to the control of specific aspects of the decommissioning process.¹⁴ As noted in the TLG 11 Report, "states became ultimately responsible for the disposition of low-level radioactive waste generated within their own borders."15 The Company will further address the legal 12 13 implications of OPC's position in its initial brief. What is the total amount of Site Restoration costs listed in the TLG 14 Q. Report? 15 A. The TLG Report lists \$115,155,000 in Site Restoration costs, excluding

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- 17 ISFSI. ISFSI Site Restoration is listed as \$1,740,000, for a total Site Restoration cost of
- 18 \$116,895,000, or 10.7% of total decommissioning costs.¹⁶
- 19 Q. Is it reasonable for OPC to compare the funding levels for Callaway 20 with those for Wolf Creek?

¹⁴ Please refer to Schedule DED-SR1 - NRC March 2023 10 CFR 50.75 Filing Status of Plant Decommissioning Funding, which is the filings referenced in Murray Rebuttal at footnote 8, page 15. ¹⁵ Attachment 3, TLG Report at page xii of xxi citing to the "Low-Level Radioactive Waste Policy Act of 1980," Public Law 96-573, 1980 and its 1985 Amendments, noting that the states became ultimately responsible for the disposition of low-level radioactive waste generated within their own borders. ¹⁶ Attachment 3, TLG Report at page xx of xxi; see also Table 3.1, Section 3, page 21 of 34; Table 6.1, Section 6, page 4 of 5.

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A. No. First, the total estimated 2023 decommissioning costs for Callaway are approximately \$1.098 billion compared to a total cost estimate for Wolf Creek of \$1.18 billion. It is not reasonable to compare different funding levels when the base decommissioning costs are different. Moreover, it is meaningless to compare the total decommissioning costs to the jurisdictional funding levels since Wolf Creek only receives 47% of the funding from its Missouri jurisdiction. ¹⁷ Callaway, on the other hand receives

100% of the funding from its Missouri jurisdiction.

Second, the funding level used for the Missouri jurisdictional share of Wolf Creek includes Site Restoration costs as estimated by TLG.¹⁸ OPC is not making an apples to apples comparison since OPC removed Site Restoration costs from the Callaway decommissioning cost estimates.¹⁹

Accordingly, it is meaningless to compare the funding levels for the two plants when the total costs are not the same and one sample includes costs that are excluded in the other sample.

Q. If the Site Restoration costs are included in the total decommissioning costs, does Ameren Missouri's Nuclear Decommissioning Fund ("NDF") have a deficit using the 2023 funding levels and the 2023 decommissioning costs?

A. Yes. As OPC points out,²⁰ the Company has a deficit of approximately \$124 million in 2023 dollars and the Company's NDF cannot cover the estimated costs of decommissioning costs. The Missouri jurisdictional deficiency for Wolf Creek is \$99.1

¹⁷ Murray Rebuttal Testimony p. 16, ll 21-23.

¹⁸ Schedule A, Table 6.1, 100 of 172, EO-2024-0056.

¹⁹ Murray Rebuttal Testimony p. 16, ll 13-23.

²⁰ *Id.* p. 16, ll 7.

- 1 million based on 2023 dollars.²¹ Comparing the jurisdictional deficit levels, Callaway has
- 2 a higher funding deficit in 2023 dollars than Wolf Creek. Setting aside any comparisons
- 3 to the Wolf Creek funding levels, Ameren Missouri's NDF cannot cover the costs of
- 4 decommissioning in 2023 dollars. Moreover, the inclusion of the Site Restoration costs is
- 5 reasonable and consistent with the decommissioning activities outlined in the
- 6 Commission's rules.
- 7 III. The Company's Request to continue the decommissioning trust funding level is reasonable.
- 9 A. Staff's Criticisms of the Funding Model for Ameren Missouri's NDF
- Q. Does the Company's NDF have sufficient funds to cover the decommissioning costs?
- A. No. As noted above, and as Staff and OPC both acknowledge, based on 2023 funding levels and cost estimates, Ameren Missouri has insufficient funds to cover decommissioning costs. Therefore, maintaining the current contribution levels is reasonable and will not result in an overfunding or underfunding of the NDF.
 - Q. Staff claims it cannot conclude that the annual contribution amount is appropriate and will result in the NDF having an ending balance to carry out the purpose of the trust while ensuring the NDF is neither over nor underfunded based on the stochastic model scenario results.²² Do you agree with the statement that one cannot conclude the trust is neither over/under funded?

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²¹ *Id.* p. 16, ll. 23.

²² Jennings Rebuttal p. 20, ll 17-20.

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- 1 A. No. I do not agree the model is inconclusive regarding the funding status. The 2 model demonstrates the trust is neither over or under funded based on the probability of either
- 3 scenario is possible. The purpose of filing triennial NDF reports is to reflect a "snapshot in
- 4 time." The actual rates of return on the NDF will fluctuate above or below what is projected in
- 5 the modeling as will the cost estimates.
 - Q. Staff states the stochastic model produced a median result of having a surplus of \$141 million in 2023 dollars.²³ Do you agree with his conclusion?
 - A No. I do not agree with Staff's conclusion since it undermines the purpose of the model. The nature of the stochastic modeling is to produce a number of outcomes given certain assumptions. The value and purpose of the model is to identify the probability of having sufficient funds available at the time of decommissioning and not to calculate an estimated median value. Contrary to Staff's assertions, this value does not indicate the trust is overfunded but is simply a mathematical outcome for various scenarios. For perspective, the model also produces a mathematical median of a negative \$132 million deficit for scenarios with an underfunded outcome.
 - Q. You testified that "the outcome of the 5,000 scenarios showed that in 67% of the cases the ending value was sufficient to fund the anticipated costs of decommissioning Callaway." Staff claims you "did not provide context for this statement including that the average NDF balance for scenarios ending with sufficient funds was \$428.1 million in excess of the amount necessary, or 39%, of the estimated

²³ Jennings Rebuttal Testimony p 19, ll. 15-16; 19-21.

²⁴ Deschler Direct p. 7, ll 4-5.

decommission cost in 2023 dollars."²⁵ What context is appropriate based on Staff's

2 criticism?

A The context of my statement was related to the probability of having sufficient funds at the time of decommissioning in October 2044. The result of 67% showed that in 2 out of 3 of the 5,000 scenarios there were sufficient funds to cover decommissioning costs. However, the model also showed that there is a 1 in 3 chance of not having sufficient funds to cover decommissioning costs. Staff's criticism of my direct testimony is that I did not consider the average surplus value. I did not discuss the average surplus value since it was not the purpose of the modeling. Although some of the 5,000 scenarios exhibiting sufficient funds show a surplus average of \$428.1 million this does not eliminate the risk of having insufficient funds under certain circumstances.

Q. Why is it reasonable to continue funding the trust at this time?

A. As noted above the current value of the assets in 2023 does not exceed the cost of decommissioning that was estimated by TLG in 2023. Additionally, the model still shows a distinct possibility – 1 in 3 probability, that given certain market conditions the trust will be underfunded at the time of decommissioning. Based on these factors it is prudent to continue the funding for the current time. Future triennial filings will allow for the ongoing monitoring of this funding status every 3 years to mitigate the risk of intergenerational inequities in funding for decommissioning. As one moves closer to the actual license termination date the probability of having sufficient funds on a going forward basis should increase if the trust is properly funded.

²⁵ Jennings Rebuttal Testimony p 20, ll 14-16.

1	Q Staff requests all future filings involving models used to support the
2	Company's position, that the Company be required to provide Staff access to a working
3	copy of said models so that Staff has an opportunity to perform an analysis of the model
4	and its results. Do I agree with this approach going forward?
5	A Although I agree with the idea of being transparent and allowing Staff to
6	replicate modeling assumptions to its satisfaction, I cannot agree with providing the detail
7	around a proprietary work product developed by Ameren Missouri's consultant. Since the
8	testimony filed by the Staff, Ameren Missouri did setup a meeting with Staff and a WTW
9	consultant to review the model. Feedback from Staff acknowledged this online review of the
10	WTW model did go a long way to satisfying Staff's desire to more readily understand the
11	stochastic modeling outcomes and its capabilities.
12	Q Do you agree with Mr. Jennings recommendation the Company file a
13	proper NDF annual contribution, along with evidence and testimony in support thereof,
14	in its next rate case for ratemaking purposes?
15	A. The inference here is Ameren did not file a proper NDF funding request in 2023.
16	I disagree with this inference. Although Ameren Missouri's 2023 filing used a different funding
17	model than the previous deterministic model, I believe the modeling was more robust and
18	showed a more realistic picture of potential future outcomes.
19	B. OPC's Criticisms of the Funding Model
20	Q. Do you agree with Mr. Murray's testimony that he believes Ameren
21	Missouri is misinterpreting the results of the WTW modeling?
22	A. No. I disagree that Ameren Missouri is misinterpreting the results. The
23	stochastic modeling is a look into the future recognizing that many variables can change and

- 1 affect the outcome of the value of the trust as well as the cost of decommissioning. I think the
- 2 model properly shows the future is uncertain given the probability of outcomes. I think the
- 3 model further demonstrates the trust is neither over or under funded when looking into the future
- 4 since either outcome is possible.

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- 5 Q. OPC states "[a]ccording to the statute, the Commission should authorize
- 6 an annual contribution amount that has an equal chance (50/50) of over- or under-funding
- 7 the decommissioning cost estimate." Do you agree with his interpretation that there
- 8 should be an equal probability of the fund being over or under funded?
 - A. Although I am not an attorney and not providing a legal interpretation, the plain language of the statute does not use "equal chance." On a practical level, applying this logic also makes it equally likely the fund will have insufficient funds. Having a NDF with insufficient funds injects a risk that will not be easy to remedy. The risk is far greater if there are insufficient funds at the time of decommissioning because there will be no time to correct the deficiency. Although the law provides for a remedy if there is overfunding any excess will be returned to customers; there is not a remedy prescribed by law if there is an underfunding. Also, in the event of being underfunded future customers will be at risk for costs for which they receive no benefit which conflicts directly with the idea of trying to mitigate intergenerational inequities in funding for the decommissioning of Callaway. Moreover, the law does prohibit the underfunding of the NDF. The Company will address the legal aspects of OPC's interpretation of Missouri law in its initial brief.
 - Q. Mr. Murray notes that he believes it is useful to consider the likely extension of extending Callaway's license for another 20 years when filing the triennial

²⁶ Murray Rebuttal p. 4, ll 25-27.

1 update. Do the Commission's rules require the Company to include potential license

2 dates?

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3 A. No. While the Company is planning on filing for a license extension to renew

4 Callaway's license for another 20-years, the Company has not filed its application at this time

5 and the NRC has not granted an extension for Callaway's license. The current license expires

6 October 18, 2044.²⁷ Moreover, consistent with the Commission rules, to the Company

examined the funding based on current license termination date. See 4 CSR 4240-3.185(4)(A).

8 Additionally, in past triennial filings, the Commission has reviewed the triennial filings for the

current license period. This is also the case for Evergy's review in EO-2024-0056.

Q. Throughout Mr. Murray's testimony he uses data from Evergy Metro's

filing for its share of the Wolf Creek generating unit. Are there any flaws in comparing

Ameren Missouri's filing to Evergy Metro's?

A. While the plants are "similar" nuclear units, there are differences in site

configurations that could change the overall estimated cost of decommissioning. For example,

the plant is located in Kansas and therefore is not necessarily subject to the same state

16 regulations as Callaway and therefore might result in different decommissioning costs and

funding requirements. As noted above, Evergy estimates higher decommissioning costs than

those estimated for Callaway. Moreover, the NDFs are not managed the same and will have

different returns. Accordingly, it is not reasonable to compare the two NDFs.

Q. Do you agree with Mr. Murray's statement that Ameren Missouri wants

to strive for an even higher probability of funding by targeting 73% probability of having

22 sufficient funds?²⁸

²⁷ Deschler Direct pg. 4. ll 11-13

²⁸ Murray Rebuttal p. 18 ll 5-9

1	A. No. OPC's statement is not based on any factual evidence. Ameren Missouri
2	did not recommend an increase to the level of funding to achieve this higher probability, and I
3	do not agree with his statement.

- Q. Is the recommendation put forth by Mr. Murray that a 50% probability outcome when modeling support the requirement to neither over or under fund the trust the right metric?
- A. I do not believe it is the right metric as noted in my earlier testimony. Assuming an equal probability of having sufficient funds injects an unfair risk to customers at the time of decommissioning. As noted above, making it equally likely the fund will be underfunded injects a complication to remedy at the time of decommissioning. The remedy for overfunding is prescribed by law any excess will be returned to customers. There is no remedy for customers if there is an underfunded trust. It could be unfair to future customers who then may be asked to make up a shortfall for a plant that will no longer be supplying energy. Correspondingly, the time to recover this shortfall would be short, under 10 years to fully decommission the plant. I would argue that as we get closer to decommissioning the probability of having sufficient funds should increase and not be held to a constant probability.
- Q. Do you agree with Mr. Murray's conclusion that Ameren Missouri should be considering capital preservation of the NDF sooner rather than later?
- A. No. As I mentioned in my direct testimony, the Company will have to evaluate the tax implications associated with trying to preserve capital, which by definition would involve the selling of equites and reallocating to fixed income. The stochastic model evaluated the tax implications associated with rebalancing the assets to the targets 65% equity and 35% fixed income. WTW's modeling demonstrated, as noted in slide 9 in Attachment 4 in the

- 1 amended filing, the proper allocation of assets remains unchanged. The graph shown in slide 9
- 2 demonstrates the 65% equity/35% Fixed Income offers the highest probability of success to
- 3 ensure the trust is adequately funded.
- 4 Q. OPC claims it does not know how Willis Towers Watson defines the range
- 5 of potential outcomes for decommissioning cost inflation. ²⁹ Please comment.
- A. My direct testimony on page 11, lines 3-7 address the modeling for the inflation
- 7 rate. I noted the rate of inflation of 4.7% and that rate of inflation used was 4.19% from the
- 8 2020 Triennial filing approved by the Commission. The Company provided a response to OPC's
- 9 data request via an email on November 5, 2024, and I cannot speak to why OPC did not update
- its testimony to either note the response of my direct testimony or to the data request.
- Q. OPC recommends the Commission address specific guidelines for NDFs.³⁰
- 12 Is this the proper docket to address new guidelines for NDFs?
- 13 A. No. The Commission has issued rules regarding review for the funding levels
- of the NDF in the triennial review. Any new guidelines should be reviewed in a rulemaking
- proceeding and should not be addressed in this docket. The Company will address the legal
- basis for its position in its initial brief.
- 17 Q. Does this conclude your rebuttal testimony?
- 18 A. Yes, it does.

²⁹ Murray Rebuttal p. 10, ll 13-18.

³⁰ Murray Rebuttal pg. 18 ll 10-28, pg. 19 ll 1-4