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Issue(s):

Net Present Value of

Ratepayers Costs/Carrying Costs

Witness/Type of Exhibit: Murray/Rebuttal Sponsoring Party: Public Counsel EF-2024-0021

REBUTTAL TESTIMONY

OF

DAVID MURRAY

Submitted on Behalf of the Office of the Public Counsel

UNION ELECTRIC COMPANY D/B/A AMEREN MISSOURI

CASE NO. EF-2024-0021

February 23, 2024

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REBUTTAL TESTIMONY

OF

DAVID MURRAY

UNION ELECTRIC COMPANY D/B/A AMEREN MISSOURI

FILE NO. EF-2024-0021

1	Q.	Please state your name and business address.
2	Q. A. Q. A. Q.	My name is David Murray and my business address is P.O. Box 2230, Jefferson City Missouri 65102.
4	Q.	By whom are you employed and in what capacity?
5 6	A.	I am employed by the Missouri Office of the Public Counsel ("OPC") as a Utility Regulatory Manager.
7	Q.	On whose behalf are you testifying?
8	A.	I am testifying on behalf of the OPC.
9	Q.	What are you addressing in your rebuttal testimony?
10 11 12 13 14 15 16	A.	I am addressing Ameren Missouri's following positions: (1) the return Ameren Missouri assumes the Commission would allow it to receive under traditional ratemaking methods or the undepreciated investment balance of the Rush Island Energy Center ("Rush Island"), (2) whether Ameren Missouri should receive "carrying costs" if Rush Island is removed from general rates before issuance of the securitized bonds, and (3) the discount rate Amerer Missouri used to estimate the net present value ("NPV") of ratepayers' costs through securitization of Rush Island energy transition costs as compared to ratepayers' costs through the "traditional method of financing and recovering the undepreciated investment of facilities"

¹ Section 393.1700.2.(1)(f), RSMo.

- Q. Which Ameren Missouri witness testifies on these topics?
- 2 A. Mitchell Lansford.
 - **Q.** What is your expertise on these topics?
 - A. Please see Schedule DM-R-1 for my qualifications as well as a summary of the cases in which I have sponsored testimony on rate-of-return ("ROR") and other financial issues.

ASSUMED RATEPAYER COSTS UNDER TRADITIONAL RATEMAKING

- Q. What is the primary factor driving Mr. Lansford's opinion that securitization would be less costly than recovery through traditional ratemaking?
- A. He assumes that under traditional ratemaking Ameren Missouri's customers would be charged a composite after-tax ROR of 6.82%. After Mr. Lansford makes an allowance for additional revenue for income taxes to achieve an after-tax return on common equity ("ROE") of approximately 9.5%, the pre-tax ROR he assumes would be charged under traditional ratemaking is approximately 8.36%.
- Q. What do you mean by a "composite" ROR?
- A. I mean a weighted-average ROR that includes the following components: (1) an allowed ROE of approximately 9.5% multiplied by the proportion of common equity in the subject company's capital structure, 2 (2) an embedded cost of debt applied to the proportion of debt in that capital structure, and (3) an embedded cost of preferred stock applied to the proportion of preferred stock in that capital structure. In the context of utility ratemaking, the phrase "weighted average cost of capital" ("WACC") is often used interchangeably with a weighted average ROR based on the presumption that the authorized ROR is set based on an estimate of the utility company's WACC.

² A company's capital structure is defined by the types and amounts of capital financing a company's assets. The most common types of capital issued to finance a utility's assets are common equity and debt.

Q. What is the basis/source for Mr. Lansford's assumed after-tax ROR of 6.82%?

A. The April 7, 2023, Stipulation and Agreement ("S&A") filed in Case No. ER-2022-0337. The parties to the April 7, 2023 S&A agreed to use this ROR for purposes of calculating Plant-in-Service Accounting ("PISA") deferrals, the Renewable Energy Standard Rate Adjustment Mechanism ("RESRAM") rates, and the Allowance for Funds Used During Construction ("AFUDC"). The parties **did not** stipulate that this ROR formed the basis for the stipulated revenue requirement.

- Q. Is allowing a ROR on utility property that is not used and useful an established ratemaking principle in Missouri?
- A. No. In fact, in the Report and Order that the Commission issued in File Nos. EO-2022-0040 and EO-2022-0193 the Commission repeatedly cites Missouri's legal principle that if a plant is not used and useful, the Company may be entitled to a recovery of its expenditures on that plant, but not a return on them.³
- Q. If a ROR is not allowed because Rush Island is no longer used and useful, would securitization ever be less costly to ratepayers than traditional ratemaking?
- A. No.
- **Q.** Why not?
 - A. Because recovery through traditional ratemaking would simply be a 15-year amortization of the energy transition costs which Ameren Missouri estimates to be \$512,760,332. The monthly revenue requirement for recovery of \$512,760,332 in energy transition costs is \$2,848,669. The NPV of this monthly revenue requirement over 15 years is \$320,489,021, which is \$167,196,966 lower than the NPV under the securitization scenario.

³ In the Matter of the Petition of The Empire District Electric Company d/b/a Liberty to Obtain a Financing Order that Authorizes the Issuance of Securitized Utility Tariff Bonds for Energy Transition Costs Related to the Asbury Plant, File No. EO-2022-0193, Report and Order, Issue 3P, pgs. 65-67; Issue 3U, pgs. 70-72

1 Q. Does Missouri's securitization law prescribe the methodology used to determine 2 whether the Commission should approve securitization of energy transition costs? 3 A. Only generally. Section 393.1700.2.(1)(f), RSMo, states that a company's petition for a 4 Commission financing order that includes a request to securitize energy transition costs must include the following: 5 A comparison between the net present value of the costs to customers that 6 7 are estimated to result from the issuance of securitized utility tariff bonds and the costs that would result from the application of the traditional 8 method of financing and recovering the undepreciated investment of 9 facilities that may become securitized utility tariff costs from customers. 10 The comparison should demonstrate that the issuance of securitized utility 11 tariff bonds and the imposition of securitized utility tariff charges are 12 expected to provide quantifiable net present value benefits to customers. 13 (Emphasis added). 14 Q. Does Missouri's securitization law define "the traditional method of financing?" 15 16 A. No. 0. Does Missouri's securitization law distinguish between "traditional method of 17 financing" versus "traditional ratemaking?" 18 19 A. Not to my knowledge. That being said, calculating the NPV of savings to customers of securitization versus "traditional method of financing" does not provide relevant 20 information of ratepayers' savings, or lack thereof, if the Commission typically does not 21 allow the recovery of a composite ROR on utility property that is no longer used and useful. 22 Q. Does Missouri's securitization law require the Commission find that the 23 securitization of energy transition costs will be less costly to ratepayers than 24 traditional ratemaking? 25 Yes. Section 393.1700.2.(3)(c)b. states that the Commission's financing order must 26 include the following: 27 A finding that the proposed issuance of securitized utility tariff bonds and 28

the imposition and collection of a securitized utility tariff charge are just

and reasonable and in the public interest and are expected to provide quantifiable net present value benefits to customers as compared to recovery of the components of securitized utility tariff costs that would have been incurred absent the issuance of securitized utility tariff bonds.

Q. If the Commission were to depart from its past precedent and allow a ROR on Ameren Missouri's undepreciated investment in Rush Island, do you agree that the 6.82% after-tax ROR is the proper benchmark to compare to cost recovery through securitization?

A. No.

Q. Why not?

A. The 6.82% is based on the use of Ameren Missouri's embedded cost of long-term debt of 3.926% at December 31, 2022, which was the true-up date in Ameren Missouri's last general rate case, Case No. ER-2022-0337. The embedded cost of long-term debt should be updated to at least the most recent quarter-end period available for purposes of any potential comparison to the estimated cost of securitization. The most updated embedded cost of long-term debt is a more accurate and reliable reflection of the costs that would be recovered through general rates.

Q. What was Ameren Missouri's embedded cost of long-term debt as of December 31, 2023?

A. 4.051%.⁴

Q. Why is it important for the Commission to clearly identify the proper basis for determining the benchmark cost of long-term debt?

A. Because in the recent Evergy Missouri West ("Evergy West") securitization case⁵ and The Empire District Electric Company d/b/a Liberty ("Liberty") securitization cases,⁶ the Commission selected outdated embedded costs of long-term debt to determine the amount

⁴ Ameren Missouri's response to OPC DR No. 3004.

⁵ Case No. EF-2022-0155.

⁶ Case Nos. EO-2022-0040 and EO-2022-0193.

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of carrying costs it would allow to be recovered through securitization. Staff also used this embedded cost of long-term debt as a benchmark in Staff witness Mark S. A. Davis' financial model for purposes of determining if securitization would result in benefits/savings to customers on a NPV basis. The higher cost of the outdated embedded cost of long-term debt caused higher than reasonable carrying charges, but also implied customers would pay a higher debt return in traditional ratemaking than would be the case going forward. Liberty's embedded cost of long-term debt had declined to 4.05% from 4.65% over the period September 30, 2019 (updated test year in Case No. ER-2019-0374), through June 30, 2021 (updated test year in Case No. ER-2021-0312). Evergy West's embedded cost of long-term debt had declined from 5.06% to 3.96% over the period June 30, 2018 (true-up date in Case No. ER-2018-0146), through May 31, 2022 (true-up date in Case No. ER-2022-0130).

- Q. How did Liberty's and Evergy West's embedded costs of long-term debt compare to the ultimate costs of the respective securitized debts?
- A. Liberty's securitized debt was priced at an average yield of 5.027%. Evergy West's securitized debt was priced at an average yield of approximately 5.101%. After considering upfront and ongoing financing costs, the effective cost of this debt was 7% and 5.82%, respectively.
- Q. After you consider Ameren Missouri's upfront and ongoing financing costs, what is the projected effective cost of Ameren Missouri's proposed securitized debt?
- A. 6.03% as compared to the projected interest rate of 5.59%.

⁷ The Empire District Electric Company's Issuance Advice Letter, January 19, 2024 – File No. EO-2022-0040, EFIS Item No. 231.

1	Q.	Why was Liberty's effective cost of securitized debt so much higher than both Evergy
2		West's actual effective cost of securitized debt and Ameren Missouri's projected
3		effective cost of securitized debt?
4	A.	Because the calculations in Liberty's Issuance Advice Letter ("IAL") included ongoing
5		annual financing costs of \$2,613,000, which includes an allowance of \$2,117,000 for
6		income taxes. Liberty's true ongoing financing costs is the difference between these
7		figures, which is \$496,000. This compares to Evergy West's \$540,000 of ongoing
8		financing costs included in its IAL and Ameren Missouri's estimated ongoing annua
9		financing costs of \$791,883.
LO	Q.	What was Liberty's effective cost of securitization if you remove income taxes from
l1		ongoing financing costs?
12	A.	5.87%.
L3	Q.	Did Liberty include income taxes in estimated ongoing financing costs in its testimony
L4		supporting its application requesting Commission authority to issue securitized debti
15	A.	No.
L6	Q.	Did Evergy West include income taxes in ongoing financing costs for securitization in
L7		its testimony supporting its application requesting Commission authority to issue
L8		securitized debt?
19	A.	No.
20	Q.	Did Evergy West include income taxes in ongoing financing costs for securitization in
20 21 22		its IAL calculations?
22	A.	No.

- Q. Is there anything else different between Liberty's IAL and Evergy West's IAL that the Commission should clarify for purposes of Ameren Missouri's securitization application?
 - A. Yes. Liberty's final calculations of quantifiable NPV savings/benefits for securitization compared to traditional ratemaking assumed that if the Commission denied securitization, Liberty would be allowed to recover all costs it incurred in pursuing securitization. Evergy West's final calculations of quantifiable NPV savings/benefits for securitization compared to traditional ratemaking assumed that if the Commission denied securitization, Evergy West would be allowed to recover only costs it incurred for the Commission's and Staff's outside consultants. The securitization law expressly authorizes recovery of costs for hiring outside financial consultants if the Commission denies a company's securitization request.8
 - Q. Why is this important to clarify for purposes of Ameren Missouri's securitization case?
- A. Because these assumptions impact the final determination of whether securitization is less costly, on a NPV basis, than recovery through traditional ratemaking.
- Q. For purposes of its IAL, did Liberty add any other costs to traditional ratemaking that were not included in its testimony supporting its securitization application?
- A. Yes. Liberty also included income taxes for the traditional ratemaking scenarios. This caused the traditional ratemaking scenario to be more costly than indicated in Liberty's testimony.

⁸ Section 393.1700.2 (4)(b), RSMo

1 O. Does Ameren Missouri's traditional ratemaking scenario include an allowance for 2 income taxes? 3 A. Yes. Line 5 of Mr. Lansford's Schedule MJL-D4 attached to his direct testimony identifies \$7,912,696 of annual income taxes. If these income taxes are factored into the pre-tax 4 ROR of 6.82%, this results in the 8.36% pre-tax ROR I identified earlier in my testimony. 5 6 Q. How did Evergy West approach income taxes for the traditional ratemaking 7 scenarios in its testimony and IAL? A. Evergy West included an allowance for income taxes, but instead of disaggregating it as a 8 separate line-item, Evergy West factored up its estimated after-tax ROR of 6.46% to allow 9 for income taxes, which requires a pre-tax ROR (i.e. before deduction of income taxes) of 10 8.9%, which is reflected in Schedule RAK-4 attached to Ronald A. Klote's direct testimony 11 in Case No. EF-2022-0155. 12 Q. 13 Has Ameren Missouri included any upfront or ongoing financing costs for traditional ratemaking recovery in this case? 14 A. No. However, just to be clear, Ameren Missouri did include an income tax allowance, but 15 income taxes should not be classified as ongoing financing costs. 16 Q. For purposes of the Liberty and Evergy securitization cases, what financial models 17 did the Commission rely on for concluding that securitization was likely to result in 18 savings/benefits to ratepayers on a NPV basis? 19 The Commission relied primarily on Mr. Davis' financial model in both cases. 20 A. Q. Do you disagree with using a financial model substantially similar to the models Mr. 21 22 Davis used in the Liberty and Evergy West securitization cases to determine savings/benefits on a NPV basis? 23 No. However, I note that his traditional ratemaking scenario in the Evergy West case was A. 24 more consistent with traditional ratemaking principles than his traditional ratemaking 25

scenario in the Liberty case. Regardless, my disagreement primarily related to the inputs used in the model. I recommend the following as it relates to using this model to determine whether securitization will result in quantifiable NPV benefits to customers:

- The Commission clearly identify the ratemaking recovery method it would authorize absent securitization,
- The rate of return parameters, if any, it would allow absent securitization, and
- The upfront and ongoing costs related to securitization it would authorize
 Ameren Missouri to recover if securitization is denied.

CARRYING COSTS

- Q. Does Mr. Lansford recommend Ameren Missouri's securitized bond amount include an allowance for carrying charges for capital supporting Rush Island?
- A. Only if Ameren Missouri's general retail rates are changed so that it is not recovering the undepreciated investment in Rush Island through those rates before the securitized bonds are issued.⁹
- Q. What if the bonds are issued before Ameren Missouri's general retail rates are changed so that it is not recovering for Rush Island through those rates?
- A. Mr. Lansford requests Commission authority to establish a regulatory liability which will ensure ratepayers are credited for the amount of recovery in current general rates that is related to Rush Island. Mr. Lansford's Table MJL-5 on page 23 of his testimony shows an itemization of the amount of Ameren Missouri's current revenue requirement he considers related to Rush Island. Mr. Lansford's itemization includes a credit to customers for the pre-tax ROR of 7.627% he considers implied from Ameren Missouri's 2022 general rate case.

⁹ Lansford Direct, p. 8, ll. 16-20.

- Q. Do you agree with Mr. Lansford's quantification of a pre-tax ROR of 7.627% as the ROR retail customers are paying for Rush Island?
 - A. No. While I agree with Mr. Lansford that the consolidated income tax rate included in Ameren Missouri's revenue requirement in its 2022 general rate case was 13.982%, this lower income tax rate, as compared to Ameren Missouri's statutory tax rate of 23.733%, is due to tax credits generated by Ameren Missouri's wind investments. The proper application of the statutory tax rate to determine the pre-tax ROR paid by ratepayers on Rush Island, results in a pre-tax ROR of 8.36%.
 - Q. Is this the pre-tax ROR Mr. Lansford used to estimate the amount Ameren Missouri retail customers would pay for Rush Island under his "traditional method of financing" scenario?
 - A. Yes. Therefore, Mr. Lansford may have simply made a mistake.
 - Q. What carrying charge rate does Mr. Lansford request Ameren Missouri be allowed for capital supporting Rush Island if the securitized bonds are issued subsequent to Ameren Missouri's retail rates being changed so that it is no longer recovering for Rush Island through those rates?
 - A. The 6.82% after-tax ROR specified in the S&A in the 2022 rate case.
 - Q. Does Mr. Lansford explain why?
 - A. No. But, based on his doing so, my opinion is his logic is that long-term investments in plant are typically funded by a mix of debt and equity. Although Ameren Missouri's initial funding of its Rush Island generating station occurred in the early-to-mid-1970s, for ratemaking purposes the capital currently supporting Rush Island is assumed to be a function of the recent mix of capital issued and/or retained by Ameren Corp and Ameren Missouri. In essence, regardless of whether Rush Island is still generating electricity, Mr. Lansford's position reflects the fact that Rush Island is still supported by the long-term

¹⁰ Ameren Corporation December 31, 2022, Notes to Financial Statements, Note 12.

capital reflected on Ameren Missouri's balance sheet. However, with Rush Island's retirement, his proposed treatment is not fair to Ameren Missouri's retail customers, especially considering the fact that the Commission has expressed that it normally would not allow a return on plant that is no longer used and useful.

- Q. Has this Commission recently addressed the propriety of allowing a ROR on utility plant that is not "used and useful"?
- A. Yes. In the Commission's *Amended Report and Order*, as corrected, as it relates to Liberty's request to be allowed carrying costs for its retired Asbury generating plant consistent with its authorized ROR, the Commission stated the following:

As the Commission has concluded above, Missouri law generally holds that for a utility to be able to recover a return on a property, that property must be used and useful. However, the securitization statute specifically includes carrying costs within the definition of energy transition costs that can be recovered through securitization. Nevertheless, nothing i[n] (sic) the statute defines carrying costs or **mandates that they be included for recovery through securitization.** Further, the securitization statute also requires the Commission find that the amount to be securitized is just and reasonable.¹¹

The Commission ultimately decided to allow carrying costs related to financing based on the embedded cost of long-term debt of 4.65% from Liberty's 2019 rate case, Case No. ER-2019-0374. However, consistent with the Commission's understanding of Missouri law, on behalf of Public Counsel, John Riley testified in Case No. ER-2021-0312 that the Commission should not include any carrying charges on Asbury based on the fact that Asbury was no longer used and useful.¹²

¹¹ File Nos. EO-2022-0040 and EO-2022-0193, *Amended Report and Order*, issued September 22, 2022, p. 72.

¹² File Nos. EO-2022-0040 and EO-2022-0193, Ex. 206, Public Counsel witness David Murray Rebuttal Testimony, p. 9, ll. 1-11.

- Q. What is your primary recommendation for including carrying charges for Rush Island in this securitization case?
 - A. No amount should be added to Ameren Missouri's requested securitization amount for carrying charges. There are no current identifiable capital issuances associated with "carrying" Rush Island.
 - Q. What if the Commission does not adopt your primary recommendation?
 - A. Secondarily, I recommend that the rate for carrying charges should not be any higher than the interest rate of the securitized debt. The securitized debt interest rate will be the rate charged to Ameren Missouri's retail customers once the bonds are issued. Ratepayers should not be charged for inefficiencies in the regulatory process which do not allow the bonds to be issued at the same time as when Ameren Missouri ceases to recover for Rush Island through its retail rates. If the bonds are issued exactly at the same time when Ameren Missouri ceases to recover for Rush Island through its retail rates, then the financing charge ratepayers would be required to pay under the securitization law is the interest rate on the securitized bond.

DISCOUNT RATE

- Q. When evaluating the benefits of securitization against traditional ratemaking, what discount rate does Ameren Missouri witness Mr. Lansford apply to the amounts Ameren Missouri's retail customers will pay payments under both securitization and traditional ratemaking?
- A. Ameren Missouri's stipulated ROR for various trackers, accruals, and riders identified in its last general rate case, Case No. ER-2022-0337.
- Q. Does Mr. Lansford explain why he uses Ameren Missouri's stipulated ROR as the discount rate to determine the NPV of ratepayer payments under both scenarios?
- 25 A. No.

Q. Do you have an opinion as to why he did so?

A. Yes, my opinion is that he believes the stipulated ROR in Ameren Missouri's last rate case is similar to Ameren Missouri's cost of capital. In the context of capital budgeting, a discount rate consistent with the risk of the investment is considered to be the "hurdle rate" for purposes of making an investment decision. In utility ratemaking, if the authorized ROR is set equal to the current cost of capital, then the NPV of the investment should be zero, meaning the project neither creates nor destroys shareholder value.

- Q. Should Ameren Missouri's estimated future cash flows be discounted by an authorized ROR?
- A. No.
 - Q. Why not?
 - A. Because the debt component of an authorized ROR is based on historical costs of long-term debt. Instead, projected cash flows should be discounted by the current debt and equity costs to determine the present value of such cash flows.
 - Q. Do Ameren Missouri's residential retail customers have the same cost of capital as Ameren Missouri?
 - A. No. Ameren Missouri's individual residential retail customers' costs of capital not only differ from it, but they also differ widely among each other. While one residential retail customer may be in the unfortunate situation in which he/she must pay his/her utility bill via a credit card, another may be in the fortunate situation in which he/she has automatic payment withdrawn from a checking account that pays little to no interest. Therefore, the opportunity cost of residential retail customers varies greatly.

- Q. Does the interest rate of securitized bonds provide some insight as to the collective cost of capital of Ameren Missouri's retail customers?
 - A. Yes. In fact, utility securitized debt is often characterized as ratepayer-backed bonds. The purpose of securitizing energy transition costs is to isolate these costs from the rest of Ameren Missouri's obligations. This is the essence of the requirement to create a special purpose entity ("SPE") that is assigned all rights, interest, and title to the assets through a "true sale" of these assets the assets in this situation being the right to receive a stream of payments from Ameren Missouri's ratepayers for purposes of servicing the securitized bond. The risk of these cash flows is defined specifically by the required return on the securitized debt, which Ameren Missouri estimated to be 5.59% at the time it filed its application.
 - Q. Does the structure of the securitized debt reduce the risk to investors of Ameren Missouri's retail customers being unable to pay, through charges imposed on them, the funds needed to service that debt?
 - A. Yes. There are several credit enhancements that allow for an even lower risk of non-performance on the bonds. These include, but are not limited to, the following:
 - True-up mechanisms that allow for under collections (for whatever reason, which may include customers who are unable to pay their bills on time or not at all),
 - Cross-collateralization among customer rate classes allowing collection shortfalls to be allocated among classes through the true-up mechanism, and
 - Capital Account funded by the utility equal to 0.5% of the securitized bond amount.
 - Q. Why is understanding this risk reduction important?
 - A. Because this credit enhancement causes the risk to investors to be lower than the composite credit profile of ratepayers. Without credit enhancement, the rate a lender charges a borrower is both the lender's required return and the borrower's cost of capital, which is

- determined based on the borrower's risk profile. For this reason, it is likely that ratepayers'
 composite cost of capital is higher than the bond securitization rate.
- 3 Q. Do you know how much higher?
- 4 A. No.

- Q. Given the uncertainty of a composite consumer discount rate, what discount rate(s) do you recommend the Commission use for determining if securitization results in quantifiable NPV benefits/savings for Ameren Missouri's retail customers?
- A. I recommend a range of discount rates with the most weight given to the securitized bond rate. For the low end, I recommend using recent yields on 10-year United States Treasury ("UST") bonds, which is around 4%. Although I don't agree with the premise for Mr. Lansford's 6.82% discount rate, this rate can be used as the high-end discount rate.
- Q. Do you recommend the same discount rate be applied for both securitization and for traditional ratemaking?
- A. Yes. In the Evergy and Liberty securitization cases I recommended applying different discount rates to securitization compared to traditional ratemaking. However, after further consideration and research, I conclude that using the same discount rate provides more useful information because a NPV analysis in this context seems to be more concerned about the timing and size of cash flows. In securitization, customer payments are typically levelized, whereas in traditional ratemaking, customer payments attributed to a specific asset are higher in the near-term and decline over time. This is due to the fact that the authorized ROR is applied to a lower investment balance as the asset is amortized.
- Q. Does this conclude your rebuttal testimony?
- **||** A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Petition of Union Electric)	
Company d/b/a Ameren Missouri for a Financing Order Authorizing the Issue of Securitized Utility	,	Case No. EF-2024-0021
Tariff Bonds for Energy Transition Costs related	,	
to Rush Island Energy Center)	
A FEID AVIT OF DA	X71113 X/II	

AFFIDAVIT OF DAVID MURRAY

STATE OF MISSOURI)	
)	SS
COUNTY OF COLE)	

David Murray, of lawful age and being first duly sworn, deposes and states:

- 1. My name is David Murray. I am a Utility Regulatory Manager for the Office of the Public Counsel.
 - 2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony.
- 3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

David Murray

Utility Regulatory Manager

Subscribed and sworn to me this 22^{nd} day of February 2024.

TIFFANY HILDEBRAND NOTARY PUBLIC - NOTARY SEAL STATE OF MISSOURI MY COMMISSION EXPIRES AUGUST 8, 2027 COLE COUNTY COMMISSION #15637121

My Commission expires August 8, 2027.

Tiffany Hildebrand Notary Public

DAVID MURRAY, CFA

Educational and Employment Background and Credentials

I have been employed as a Utility Regulatory Manager at the Office of the Public Counsel (OPC) since July 1, 2019. Prior to accepting employment with the OPC, I was the Utility Regulatory Manager of the Financial Analysis Department for the Missouri Public Service Commission (Commission) from 2009 through June 30, 2019. I accepted the position of a Public Utility Financial Analyst in June 2000 and my position was reclassified in August 2003 to an Auditor III. I was promoted to the position of Auditor IV, effective July 1, 2006. I was employed by the Missouri Department of Insurance in a regulatory position before I began my employment at the Missouri Public Service Commission.

I was authorized in October 2010 to use the Chartered Financial Analyst (CFA) designation. The use of the CFA designation requires the passage of three rigorous examinations addressing many investment related areas such as valuation analysis, portfolio management, statistical analysis, economic analysis, financial statement analysis and ethical standards. In addition to the passage of the examinations a CFA charterholder must have four years of relevant professional work experience.

In May 1995, I earned a Bachelor of Science degree in Business Administration with an emphasis in Finance and Banking, and Real Estate from the University of Missouri-Columbia. I earned a Masters in Business Administration from Lincoln University in December 2003.

In April 2007 I passed the test required to be awarded the professional designation Certified Rate of Return Analyst (CRRA) by the Society of Utility and Regulatory Financial Analysts (SURFA). I served as a board member on the SURFA Board of Directors from 2008 through 2016. I am currently an active member of SURFA and am authorized to use the CRRA designation.

Case Participation

Case Participation While Employed with the Missouri Office of the Public Counsel (July 2019 through Current):

I sponsored testimony (mainly as it relates to rate of return issues, but also recent cases involving appropriate carrying costs related to extraordinary costs related to Storm Uri) in the following cases:

Confluence Rivers Utility Operating Company	WR-2023-0006
Elm Hills Utility Operating Company	WR-2020-0275
Empire District Electric Company	ER-2019-0374, ER-2021-0312, GR-2021-
	0320 and EO-2022-0040
Evergy Metro Company	ER-2022-0129
Evergy Missouri West Company	ER-2022-0130 and EF-2022-0155
Missouri-American Water Company	WR-2020-0344 and WR-2022-0303
Raytown Water Company	WR-2023-0344
Spire Missouri	GR-2021-0108 and GR-2022-0179
Summit Natural Gas of Missouri	GR-2022-0122
Union Electric	ER-2019-0335, ER-2021-0240,
	GR-2021-0241 and ER-2022-0337

Case Participation While Employed with the Staff of the Missouri Public Service Commission (July 2000 through June 2019):

In addition to supervising employees who sponsored rate of return (ROR) testimony as Manager of the Financial Analysis Department of the Missouri Public Service Commission, I directly sponsored ROR testimony in the following electric, gas and water case proceedings (I also filed ROR testimony in several other smaller proceedings that are not listed):

Union Electric	ER-2010-0036, ER-2011-0028, ER-2012-0166, ER-2014-0258,
	and ER-2016-0179
Empire District Electric	ER-2002-424, ER-2004-0570, ER-2006-0315, ER-2019-0374
Company	and ER-2021-0312
Kansas City Power & Light	ER-2009-0089, ER-2010-0355, ER-2012-0174, and
Company	ER-2016-0285
KCP&L Greater Missouri	ER-2001-672, EC-2002-265, ER-2004-0034, ER-2005-0436,
Operations and Former	ER-2009-0090, ER-2012-0175, and ER-2016-0156
Aquila Inc. dba Aquila	
Networks MPS and L&P	
Spire Missouri West and	GR-2001-292, GR-2004-0209, GR-2006-0422, GR-2009-0355,
former Missouri Gas Energy	GR-2017-0216, and GR-2021-0109
Spire Missouri East (Laclede	GR-2017-0215
Gas)	
Missouri American Water	WR-2003-0500, WR-2007-0216, WR-2010-0131, and
Company	WR-2015-0301
Missouri Gas Utility	GR-2008-0060
Summit Natural Gas of	GR-2014-0086
Missouri	
Liberty Midstates Gas	GR-2018-0013
Company	

In addition to the above, I have sponsored testimony in other proceedings, such as merger applications, which involve various general financial matters.