Exhibit No.: ______________
Issue(s): Risk/Executive Order 14420/Response to Staff/Public Comments
Witness/Type of Exhibit: Marke/Surrebuttal
Sponsoring Party: Public Counsel
Case No.: EA-2026-0183

SURREBUTTAL TESTIMONY

OF

GEOFF MARKE

Submitted on Behalf of the Office of the Public Counsel

UNION ELECTRIC COMPANY
D/B/A AMEREN MISSOURI

CASE NO. EA-2026-0183

September 4, 2026

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D/B/A AMEREN MISSOURI

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I. INTRODUCTION

Q. Please state your name, title, and business address.

A. Geoff Marke, PhD, Chief Economist, Office of the Public Counsel (OPC or Public Counsel), P.O. Box 2230, Jefferson City, Missouri 65102.

Q. Are you the same Geoff Marke that filed rebuttal testimony in this docket?

A. I am.

Q. What is the purpose of your surrebuttal testimony?

A. To provide surrebuttal testimony in response to:

- Increased data center risk factors;
- Executive emergency orders;
- The Missouri Public Service Commission Staff ("Staff") rebuttal report; and
- Comments made at the Moscow Mills local public hearing.

My silence in regard to any issue should not be construed as an endorsement of Ameren Missouri or any other party's position.

Q. Are you amending any of your recommendations from rebuttal testimony?

A. I am not.

Consistent with the position I have taken in EA-2025-0238 ("Big Hollow" Natural Gas) and EA-2025-0239 ("Reform Solar"), I am providing conditional support for these projects dependent entirely on large load customers covering these expenses in total. Additionally, I made specific recommendations in rebuttal testimony over possible agrivoltaic enhancements for the solar projects as well as fire suppression and incident response plans for the battery energy storage systems ("BESS").

From a cost perspective, these investments make no sense and are not a prudent use of captive customers' finite capital.

From a resource perspective, solar investments make little sense for a utility needing winter capacity accreditation. Comparatively, the BESS investments provide more favorable resource support, but their useful life is much shorter and performance history is largely unknown.

From a Renewable Energy Standard ("RES") statutory perspective, these investments represent a cost-prohibitive path towards compliance when Ameren Missouri could just as easily purchase RECs on the market for a fraction of the costs.

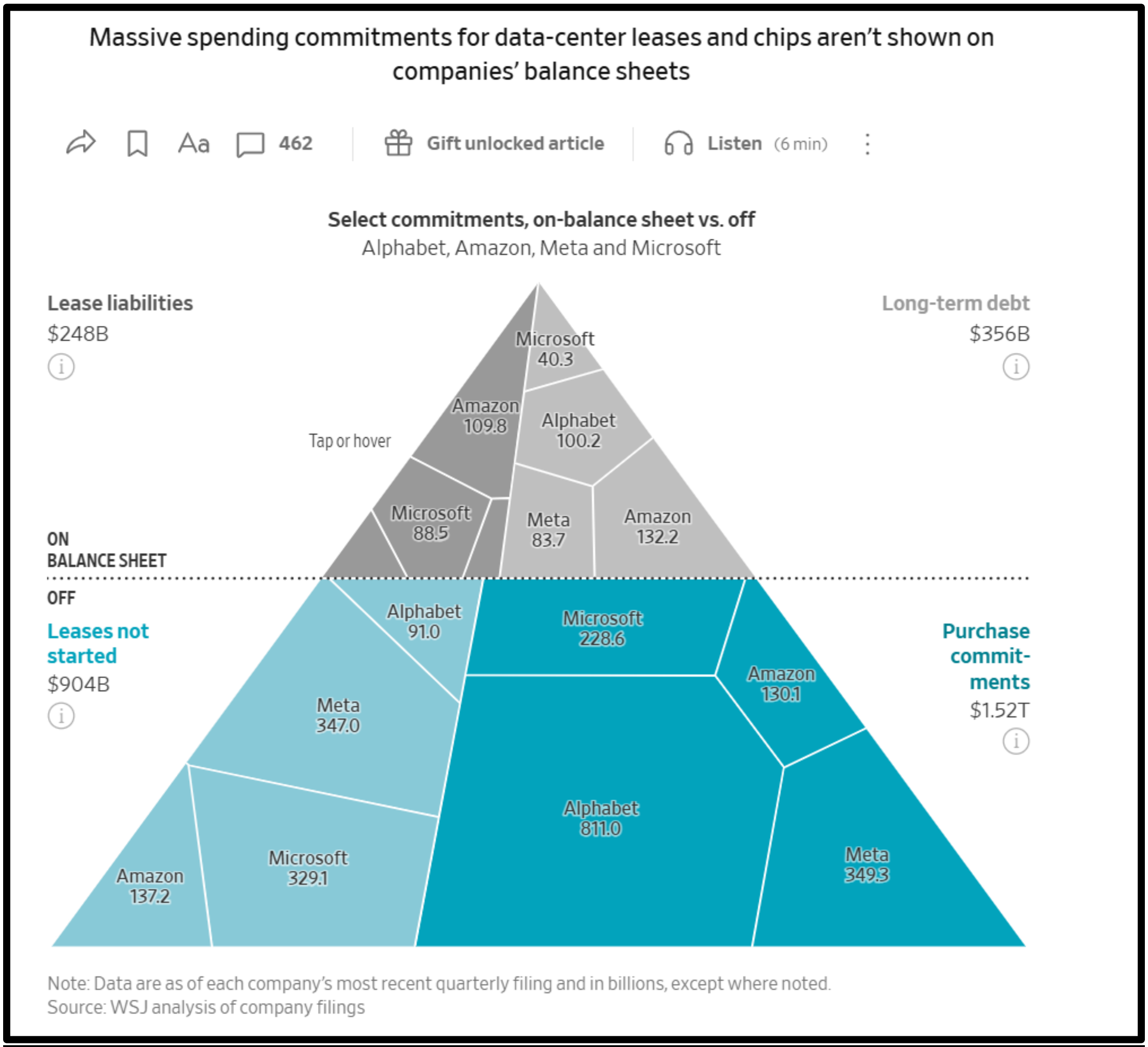
The only scenario in which we need to purchase excess solar generation and complementary battery energy storage systems ("BESS") at this moment in time and under these inflated prices is to meet the need for projected data center load. Absent a firm commitment for participating data centers to put up the funds to cover the entire costs of the project, I do not believe it is prudent for Ameren Missouri to move forward with these projects.

II. UPDATED RISK FACTORS

Q. Have there been any material changes to the risk profile of data centers and AI in general since your rebuttal testimony?

A. Yes. Both data centers and AI in general continue to be met with skepticism and public resistance. These concerns certainly seem validated after *The Wall Street Journal* reported that **Big Tech's AI off-balance sheet commitments exceeds $3 trillion dollars** as shown in Figure 1.

<u>Figure 1: Big Tech's unreported off-balance sheet commitments</u>[1]



According to *The Wall Street Journal*:

> America's blue-chip tech companies are placing these huge bets based on assumptions about what the demand for AI computing—and availability of AI

[1] Rudegeair, P. & P. Santilli (2026) Why Big Tech's AI Spending Is $3 Trillion Higher Than It Seems. *The Wall Street Journal*. https://www.wsj.com/tech/ai/why-big-techs-ai-spending-is-3-trillion-higher-than-it-seems-e1067bb2

hardware—will be in several years. Their hope is that they will easily meet all their obligations with future revenue as consumers and businesses adopt AI in every facet of American life.

If those assumptions about technology and demand prove wrong, these deals to clinch future capacity could become a monstrous burden for the tech companies and their investors.[2]

Q. If the assumptions about AI and data centers are wrong, are these investments at risk of being a monstrous burden on captive customers?

A. Yes. It's all tethered together.

A scenario where there is excess power generation across the United States is very plausible given the unprecedented capital expenditure ("CAPEX") build-out and the complete absence of any evidence that AI investment can cover its costs and produce a profit.

Simply put, there is a massive amount of risks in these investments. If Ameren Missouri wants to move forward with these projects, they should secure the capital infusion from the data centers prior to construction or signal they will assume the risk of attempting to collect the costs after-the-fact. It is neither practical nor prudent to expect existing ratepayers to cover the costs and risks tied to investments not necessary to provide safe and adequate service for existing customers and load.

III. EXECUTIVE ORDER 14420

Q. Has there been any relevant federal policy enacted since you filed rebuttal testimony that could impact the economics of this project?

A. Yes, President Donald Trump signed Executive Order 14420 on August 26, 2026, declaring a national emergency to restrict or ban foreign-made electrical grid equipment from adversarial

[2] *Ibid*.

countries like China. Among the provisions, the Order authorizes the U.S. Department of Energy to prohibit, condition or unwind transactions involving certain foreign-produced electric infrastructure equipment and establishes a framework for future procurement restrictions and vendor qualification requirements. This Order will create near-term project delays, compliance uncertainty, and supply-chain restructuring for utility-scale solar and battery storage investments by restricting foreign-produced grid hardware. This will almost certainly result in even greater capital expenditure.

Q. Will the solar and battery projects in this proceeding be impacted by this announcement?

A. I cannot say for certain, but I believe the probability is very high. Grid-scale battery storage faces higher near-term exposure than other energy sectors because of heavy reliance on foreign supply chains.[3] I had issued discovery on this topic but did not receive a response in time for surrebuttal testimony.

Q. Does this change any of your recommendations?

A. No, it does not. It only further strengthens my arguments and supports the importance of adhering to cost-causative principles. The application was already cost-prohibitive before this, it will be more cost-prohibitive after this order is executed. To the extent that the Commission approves this CCN, I recommend that the Commission order Ameren Missouri to provide updated contingency budgets and procurement disclosures to account for these newly introduced regulatory and pricing risks.

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[3] Martucci, B. (2026) Trump grid order likely to cause energy storage delays, cancellations: Bloomberg NEF. *Utility Dive*. https://www.utilitydive.com/news/trump-grid-order-likely-to-cause-energy-storage-delays-cancellations-bloo/829306/

IV. RESPONSE TO STAFF

Q. How would you characterize the Staff of the Missouri Public Service Commission's ("Staff") rebuttal report?

A. Staff conditionally supports Ameren's application but the tone and rhetoric are different than in other recent CCN applications, especially the Reform Solar (EA-2025-0239) and Big Hollow (EA-2025-0238) cases. Staff goes to great lengths to show how costs for this project would flow to different customer classes depending on the timing and method of cost recovery and hyperscale load materializing. Staff also provides an overview of accounting treatment context around the costs and need for renewable energy credits ("RECs") to meet the State's Renewable Energy Standard with and without large load customers.

Ultimately, Staff emphasizes that the crux of the issue comes down to how likely it is that the data centers will materialize in the future.

Q. Is that an appropriate concern?

A. That's part of it. The other part is ensuring that the hyperscalers are going to be here long enough to pay for these massive investments.

Q. Can you provide any examples where cost causation for a data center was applied on the front-end of a transaction?

A. Yes. Earlier this week it was reported that Google will be paying $716 million upfront and $1.6 billion over the life of a 600 MW solar facility, a 350 MW BESS investment, as well as the transmission and distribution costs for an Entergy Arkansas investment.

Q. How was this reported?

A. *The Arkansas Times* reported on the agreement and cited to former Chairman of the Missouri Public Service Commission about the arrangement. *The Arkansas Times* reports:

> Scott Rupp, the former chairman of the Missouri Public Service Commission, watching the Google data center document disclosure scandal unfold from afar,

> called to say that the math in the Democrat-Gazette looked funny to him, too. "The first article that came out, that's kind of what perked my eyes. I was like, that doesn't seem right," he said. (He also said Entergy did not put him up to calling me). After the interview, we learned that Rupp has served as a lobbyist for Google in Missouri and still provides community affairs services for the company in his state.
>
> Rupp had not reviewed the confidential agreement and based his assessment on the published figures and his experience in other states. He also said that, in his experience, big data center projects typically don't resist paying their own way, and can help fund important system upgrades, which is part of their draw to utilities. "What it seems like Arkansas is doing — Missouri's doing it and Arizona's doing it — is they're making these big players pay for everything and any upgrades, and the big players seem to be happy to do it," he said.[4]

Q. Do you agree with former Chairman Rupp's assessment of Missouri?

A. I do not.

Missouri is not doing that.

Otherwise, Google (or whatever relevant data center) would be putting up the money tied to this investment and I would not be writing about this in multiple dockets.

Q. Does Staff take a position on cost allocation?

A. Not explicitly. The Staff suggests (like OPC) that costs allocation is a rate case issue. However, implicitly, Staff's analysis provides more than enough empirical evidence to show the risk borne by existing customers if costs are not allocated correctly and/or if load fails to materialize or drop off entirely.

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[4] Cline, E. (2026) Is Google paying for Cypress Solar—or are you? *The Arkansas Times*. https://arktimes.com/arkansas-blog/2026/09/04/is-google-paying-for-cypress-solar-or-are-you

Q. Staff seems to suggest that the Commission can approve these investments to meet the State's Renewable Energy Standard. Do you agree?

A. I do not. That would not be financially prudent.

There is no world in which you would enter into billions of dollars of planned CAPEX investment to meet state-imposed renewable energy standards when compliance could be met at a fraction of that cost by buying renewable energy credits ("RECs") off of the market (see OPC witness Seaver for more information on this).

Even postponing the investment for a couple of years would almost certainly result in lower upfront costs as US-side manufacturing proliferates.[5]

Q. What else did Staff suggest around RES compliance and these investments?

A. Staff witness J. Luebbert states:

> In a future rate case, Ameren Missouri's decision to proceed with the construction of these facilities as RES compliance assets will be determined by the extent to which Ameren Missouri knew, or should have known that some or all of the energy sales to large load customers that Ameren Missouri relies on to justify the need of this asset for RES compliance purposes may be excluded from the RES portfolio requirement. In short, if prior to proceeding with this CCN, Ameren Missouri knows or becomes aware that the facility is not needed for RES compliance, the financial consequences of the imprudence of the decision to proceed should be borne by Ameren Missouri, not its ratepayers.[6]

Q. What is your response?

A. On the one hand, I can appreciate Staff's concerns around whether or not this project is necessary for RES compliance. On the other hand, suggesting this project is warranted

[5] Martucci, B. (2026) US solar, battery manufacturing to expand through 2027 despite uncertainty: Anza Renewables. *Utility Dive*. https://www.utilitydive.com/news/us-solar-battery-manufacturing-to-expand-through-2027-despite-uncertainty/747115/

[6] Luebbert, J. (2026) Missouri Public Service Commission Staff Report: EA-2026-0183 p. 86.

because of RES compliance is akin to saying we should buy out an entire Hollywood studio and production crew just because we would like to watch a new movie.

The rationalizations deployed by Staff are not necessary or appropriate to conclude these investments are not prudent if data centers fail to materialize over the life of these assets. There are 1,576 active solar projects currently listed in the MISO generation interconnection que.[7] Most of these projects will produce excess RECs at a fraction of the costs being contemplated here. To suggest otherwise is wrong and a massive misallocation of capital.

V. MOSCOW MILLS PUBLIC COMMENTS

Q. An additional public hearing was held in Moscow Mills, Missouri. Did you attend that event?

A. Yes, I did. I fielded several questions from the public and listened to safety concerns around the proposed battery project and fears of further investment build-out.

Q. How would you characterize the response from the public from the hearing?

A. I thought ratepayers raised legitimate concerns and behaved in a rationale manner.

Q. What did you take away from the public hearing?

A. That the public doesn't trust what they are being told.

This also checks with national polling data that finds the public:

- confidence in U.S. institutions near all-time lows;[8]
- wants much stronger utility oversight;[9]
- is struggling with paying rising utility bills; [10] and

[7] See MISO Current Que activity at: https://cloud.cartovista.com/miso/ferc/current-queue-map . The number cited is as of 9/4/2026.
[8] Saad, L. (2026) Confidence in U.S. Institutions remains near all-time low. *Gallup*. https://news.gallup.com/poll/712436/confidence-institutions-remains-near-time-low.aspx
[9] Martucci, B. (2026) 76% of Americans want stronger utility oversight. *Utility Dive*. https://www.utilitydive.com/news/76-of-americans-want-stronger-utility-oversight/820868/
[10] Consumer Reports (2026) New Survey from Consumer Reports finds Majority of Households Strained by Energy Bills, Concerned over Data Centers's Impact on Bills. https://advocacy.consumerreports.org/press_release/new-

- is antagonistic to data centers and artificial intelligence in general[11]

I will also make the observation that the presence of, by my count, thirteen uniformed police officers underscores these tensions.

Q. Could you provide an example of this mistrust?

A. In what I would describe as a "hide the ball" tactic around planned investment, concerned citizens questioned the utility around further planned investments in Moscow Mills and were told no further investments were currently planned. When pressed why Ameren Missouri has bought up thousands of additional acres of farmland at above market-value surrounding the site of the batteries, the Company modified its response by stating that those future investments (most likely solar) are not part of this docket and that the public would have plenty of opportunity to respond if and when the Company were to propose those investments.

Q. How did the public respond?

A. By suggesting that the Company was being disingenuous with their answers and pointing out (correctly) that planned investments like those contemplated in Lincoln County enables further CAPEX build-out.

Q. Do you agree with the public?

A. I do. The location of planned investments is largely influenced by the presence of existing investments (e.g., transmission lines, switchyards, substations). Restated, if the Commission approves this CCN, Lincoln County citizens should expect the solar investments to follow because the switchyard and batteries will already be there.

Q. How can we rectify this?

A. It was evident at Moscow Mills local public hearing that the public wants more information, they want to be heard, and they largely don't trust what they are being told. We (collectively

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survey-from-consumer-reports-finds-majority-of-households-strained-by-energy-bills-concerned-over-data-centerss-impact-on-bills/

[11] Ray, J. (2026) Americans cool towards AI. *Gallup*. https://news.gallup.com/poll/712751/americans-cool-toward.aspx

as stakeholders) need to do a better job at this. Making environmental studies and battery safety mitigation strategies available to the public is one step to possibly appease concerns. Those actions happened, but only much later in the process and after the public demanded it. No doubt more could be accomplished on the front end with proper notification and education to the public.

Perhaps the easiest thing for Ameren Missouri to do would be to change its messaging around cost allocation associated with the data centers. Existing captive customers really do not want to subsidize the risk or costs for the richest companies in the world. I also do not believe the Missouri General Assembly intended for Missouri citizens to foot the bill for Big Tech. Ameren Missouri's rejection of this position runs counter to the intent of the Ratepayer Pledge (in which Ameren Missouri was a signatory), Missouri statute, and is almost certainly contributing to an erosion of trust from the public and subsequently greater resistance towards cost-prohibitive planned investments.

Let load pay for load as the law intended.

Q. Do you have any final thoughts before concluding?

A. The investments contemplated in this proceeding are cost-prohibitive (and seemingly are going be more cost-prohibitive moving forward) and provide almost no meaningful movement towards securing winter capacity accreditation. For all practical purposes the Commission should reject this application out-of-hand as it makes very little sense to Ameren Missouri's existing captive customers.

The only scenario in which this makes sense is if a data center pays for the entirety of the investment (along with the subsequent mitigation measures) alone. I strongly advise Ameren Missouri to take a further step and demand that the costs be paid up front consistent with the commercial/industrial industries concept of "additionality," and Ameren Missouri's large load tariff renewable rider. If Ameren Missouri fails to do this then management is not acting prudently and Ameren Missouri should bear the risks (costs) of any future stranded costs associated with these investments.

Q. Does this conclude your testimony?

A. Yes.

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 Permission and Approval and Certificates of Public Convenience and Necessity Authorizing it to Construct Renewable Generation Facilities and Battery Energy Storage Systems	))))))	Case No. EA-2026-0183

AFFIDAVIT OF GEOFF MARKE

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Geoff Marke, of lawful age and being first duly sworn, deposes and states:

1. My name is Geoff Marke. I am a Chief Economist for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my surrebuttal 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.

Geoff Marke
Chief Economist

Subscribed and sworn to me this 3rd day of September 2026.

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

Tiffany Hildebrand
Notary Public

My Commission expires August 8, 2027.