

Exhibit No. 100

Exhibit No.:
Issue(s): Large Load Customers
Sponsor Staff Report
Witness: J Luebbert
Sponsoring Party: MoPSC Staff
Type of Exhibit: Supplemental Rebuttal Testimony
Case No.: ET-2025-0184
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MISSOURI PUBLIC SERVICE COMMISSION
INDUSTRY ANALYSIS DIVISION

SUPPLEMENTAL REBUTTAL TESTIMONY
OF
J LUEBBERT

**UNION ELECTRIC COMPANY,
d/b/a AMEREN MISSOURI**

CASE NO. ET-2025-0184

Jefferson City, Missouri
October 2025

1 **SUPPLEMENTAL REBUTTAL TESTIMONY**

2 **OF**

3 **J LUEBBERT**

4 **UNION ELECTRIC COMPANY,**
5 **d/b/a AMEREN MISSOURI**

6 **CASE NO. ET-2025-0184**

7 Q. Please state your name and business address.

8 A. My name is J Luebbert. My business address is 200 Madison Street, Jefferson
9 City, Missouri 65102.

10 Q. By whom are you employed and in what capacity?

11 A. I am employed by the Missouri Public Service Commission as the Manager of
12 the Tariff/Rate Design Department.

13 Q. Please describe your education and work background.

14 A. Please see my credentials included in Appendix 1 attached to the
15 Staff Recommendation.

16 Q. Have you previously filed testimony before the Commission?

17 A. Yes. Please see Appendix 1 attached to the Staff Recommendation for a list of
18 cases in which I have testified.

19 Q. What is the purpose of your supplemental rebuttal testimony?

20 A. The purpose of my supplemental rebuttal testimony is to sponsor the overall
21 Staff Rebuttal Report that was filed on September 5, 2025. I also provide a very brief
22 overview on settlement agreements in Ohio and Indiana relating to large load customers and
23 some information on northern Virginia, the data center capital of the world.

1 Q. What is Staff's recommendation to the Commission in this proceeding?

2 A. Staff recommends that the Commission reject the tariff sheets proposed by
3 Ameren Missouri and approve the tariff structure and rate design as provided by Staff attached
4 to its Rebuttal Report.

5 Q. Has Ameren Missouri provided Staff with the list of potential
6 large load customers?

7 A. No. Ameren Missouri has only provided general amounts of potential demands
8 that potential customers have expressed an interest in locating in Ameren Missouri's
9 service territory.

10 Q. On page 7, lines 1 – 3 and lines 10-13, of his direct testimony, Mr. Arora states,
11 "[a]nd as Mr. Dixon's Direct Testimony discusses, there is a significant pipeline of additional
12 Large Load Customer additions beyond the approximately 15 GW of load I just discussed,"
13 and "[w]hile the interest is from a variety of sectors, data centers account for over 50% of
14 the expected demand in the Company's overall development pipeline (which exceeds 30 GW)
15 as shown in Figure 3 from Mr. Dixon's Direct Testimony." How does Staff respond to
16 his statement?

17 A. It is Staff's position that if this is not a speculative list, then Ameren Missouri
18 should provide this pipeline to Staff and the Commission. Ameren Missouri wants the
19 Commission to approve a tariff that will be beneficial to itself and these large load customers,
20 so the more transparent the process, the better it will be for Missouri. In the paper
21 "Extracting Profits from the Public: How Utility Ratepayers are Paying for Big Tech's Power,"
22 published by the Harvard Law School, authors Eliza Marting and Ari Peskoe state:

1 There are reasons, however, to be skeptical of utilities' projections.
2 Utilities have an incentive to provide optimistic projections about
3 potential growth; these announcements are designed in part to grab
4 investors' attention with the promise of new capital spending that will
5 drive future profits. When pressed on their projects, utilities are often
6 reticent to disclose facility-specific details on grounds that a data center's
7 forecasted load is proprietary information. This secrecy can lead utilities
8 and analysts to double-count a data center that requests service from
9 multiple utilities. To acquire power as quickly as possible, data center
10 companies may be negotiating with several utilities to discover which
11 utility can offer service first.¹

12 Q. What can the Commission do to help ease these concerns?

13 A. The Commission should require Ameren Missouri, and every other regulated
14 electric utility in Missouri, to provide actual potential customer lists to the Commission and
15 anticipated loads for each customer. Further, the utility should also provide how it plans to
16 meet these potential new loads. This information should be filed confidentially to ensure that
17 the information is not released to the public, but the Commission must have the ability to review
18 the information that the utility has prior to allowing construction and upgrades on
19 these facilities.

20 Q. When should this information be provided?

21 A. Due to the nature of this new industry and how quickly it has developed,
22 Staff would recommend that this information be filed quarterly so that if the utility has to make
23 a quick decision, the Commission has the information at hand.

24 Q. Why is this information needed by Staff and the Commission?

25 A. There are three major reasons for this information to be provided.

¹ Martin, Eliza and Peskoe, Ari, Extracting Profits from The Public: How Utility Ratepayers Are Paying for Big Tech's Power, Environmental & Energy Law Program | Harvard Law School (2025), page 5.

- 1) To ensure that the claims that are being made by the utility are correct. In SB 4, the entire IRP² process will be changing. It is imperative that as much information as possible is known by the Commission in order for the Commission to make the best decision for Missouri ratepayers.
- 2) To be able to compare utilities within the state to ensure that multiple Missouri utilities are not counting the same potential customer. It is conceivable, if not likely, that a large load customer would be looking at locating a site near Kansas City or St. Louis. The Commission needs to be able to see this information so that two utilities are not given permission to each build new generation facilities to meet the load of a customer who is only going to choose one location.
- 3) The magnitude, location, and timing of energy usage impacts fuel and purchased power costs as well as the planning of transmission and distribution facilities.
- 4) The Commission also needs to be able to review the overall load characteristics of a potential large load customer. While a majority of the load may be for continuous operations of computer servers within the facility, there will also be the potential for substantial load that will be weather sensitive, such as cooling in the summer. Weather sensitive load will cause lower load factors overall, and significant swings in seasonal capacity requirements. Thus, it is imperative to understand the operating characteristics of these potential large load customers to ensure that the new generation facilities are chosen to meet actual capacity requirements that the utility will experience.

² Integrated Resource Planning. IRP is the process in which electric utilities provide their forecasted demand out over a series of years and the utilities' plan for meeting that demand. The new process as outlined in SB 4 will allow the Commission to potentially approve the building of near-term generation facilities to meet increasing demand. If large load customers are included in those forecasts, it is imperative that Staff, the Commission, and other intervenors have access to that information to determine if those are reasonable assumptions.

1 Q. Are there other measures that the Commission can undertake to help mitigate
2 the risks to existing ratepayers?

3 A. Yes. The Commission should authorize Ameren Missouri to adopt the tariffs
4 concerning large load customers as outlined in the Staff Rebuttal Report, and attached to it for
5 reference, along with the other recommendations provided in the Staff Rebuttal Report.

6 Q. What information would you like to provide as an overview related to Ohio,
7 Indiana, and Virginia?

8 A. I will address each, below.

9 **OHIO**

10 In October 2024, American Electric Power (“AEP”) of Ohio entered into a settlement
11 agreement with the Public Utilities Commission’s Staff, the Ohio Consumers’ Counsel,
12 the Ohio Energy Group, Ohio Partners for Affordable Energy, and Walmart.³ The settlement
13 agreement details that “new data centers larger than 25 MW would have to pay for at least 85%
14 of the energy they expect to need each month, even if they use less, to cover the cost of
15 infrastructure needed to bring electricity to the facilities” and “requires data centers to show
16 they are financially viable and able to meet certain requirements, as well as to pay an exit fee if
17 their project is canceled or they can’t meet obligations set in their electric service agreement
18 contracts”.⁴ AEP Ohio reports on its website that the Public Utilities Commission of Ohio
19 adopted AEP Ohio’s 2024 Data Center Tariff Settlement and that the company filed its
20 compliance tariff on July 11, 2025.⁵

³ Ethan Howland, *AEP Ohio reaches agreement with stakeholders on data center interconnection rules*, Utility Dive, published October 24, 2024.

⁴ *Id.*

⁵ AEP Ohio, *Data Center Tariff*, <https://www.aepohio.com/company/about/rates/data-center-tariff/>.

INDIANA

Indiana Michigan Power (“I&M”) anticipates that Indiana’s peak load will increase from 2,800 MW to more than 7,000 MW by 2030.⁶ In November 2024, I&M, the Indiana Office of Utility Consumer Counselor, Citizens Action Coalition of Indiana, Amazon Data Services, Google, Microsoft, and the Data Center Coalition filed a settlement agreement with the Indiana Utility Regulatory Commission (“IURC”).⁷ The settlement agreement “amends I&M’s industrial power tariff” and “applies to new or expanded facilities with contract capacity of at least 70 MW or 150 MW aggregated across a company.”⁸ Additionally, “[t]he agreement defers cost allocation issues to future proceedings, such as a tracker filing or rate case, instead of setting a cost allocation or specific methodology for large load customers” and, in making a change to the settlement agreement, “the IURC ordered that any planned reduction of more than 20% of a large load customer’s contracted peak capacity must be submitted to the agency for its review and approval.”⁹ The IURC approved the settlement agreement in February 2025.¹⁰

VIRGINIA

Northern Virginia is known as the data center capital of the world, as it has the largest market size, by MW, shown below:¹¹

⁶ Ethan Howland, *Indiana regulators approve ‘large load’ interconnection rules*, Utility Dive, <https://www.utilitydive.com/news/indiana-iurc-large-load-interconnection-data-center-aep-amazon-google/740452/>, published February 20, 2025.

⁷ *Id.*

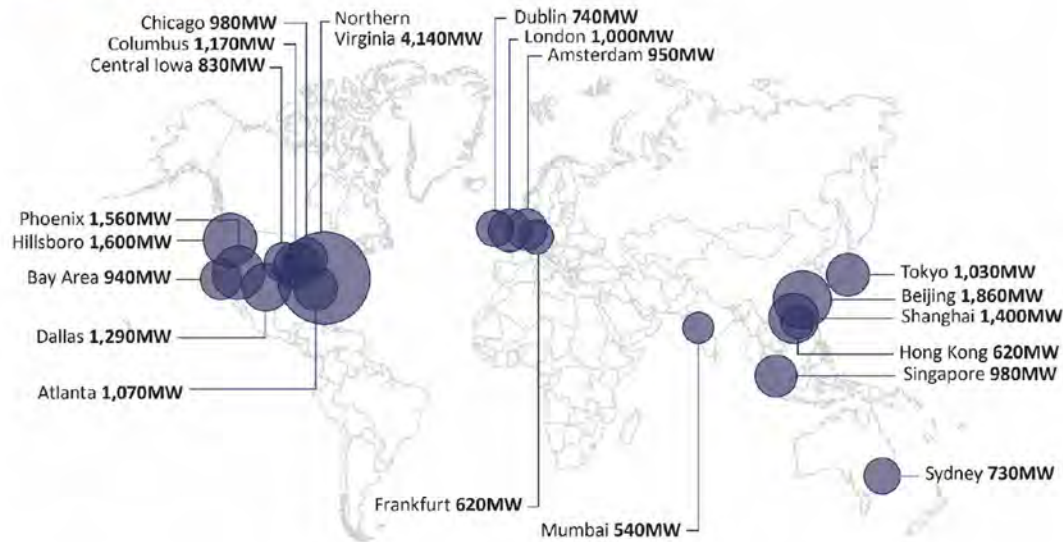
⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.*

¹¹ Joint Legislative Audit and Review Commission, “Data Centers in Virginia”, Commission Briefing, Slide 10, December 9, 2024, <https://jlarc.virginia.gov/pdfs/presentations/Rpt598Pres-1.pdf>.

Northern Virginia is the largest data center market in the world



JLARC analysis of Cushman & Wakefield 2024 Global Data Center Market Comparison

More particularly, Loudoun County, Virginia, is the top data center market in the world, accounting for more than 80% of Dominion Energy’s data center demand. Loudoun County experienced an electricity demand increase of approximately 500% from 2013 to 2022.¹²

The Joint Legislative Audit and Review Commission (“JLARC”)¹³ directed Staff in 2023 to “review the impacts of the data center industry in Virginia.”¹⁴ On December 9, 2024, JLARC provided its 2024 Data Centers in Virginia Report to the Governor and General Assembly of Virginia. In summary, JLARC’s findings included, in part:¹⁵

¹² Jared Anderson, “Power demand from datacenters in Virginia increased 500% from 2013 to 2022”, *S&P Capital IQ*, June 26, 2023.

¹³ JLARC “conducts program evaluation, policy analysis, and oversight of state agencies on behalf of the Virginia General Assembly.” See <https://jlarc.virginia.gov/>.

¹⁴ JLARC, “Data Centers in Virginia”, Report to the Governor and the General Assembly of Virginia at i, December 9, 2024.

¹⁵ JLARC, “Data Centers in Virginia”, Report to the Governor and the General Assembly of Virginia at i to viii, December 9, 2024. All of the summary findings are listed below:

- 1 • “Data center industry is forecast to drive immense increase in energy demand”
- 2 • “Building enough infrastructure for unconstrained data center demand will be
- 3 very difficult and meeting half that demand is still difficult”
- 4 • “Data centers are currently paying their full cost of service, but growing
- 5 energy demand is likely to increase other customers’ costs” and,
- 6 • “Data centers create additional financial risks to electric utilities and their
- 7 customers”.

8 “This spring in Virginia, Dominion Energy filed a request with the State Corporation
9 Commission to increase the rates it charges by an additional \$10.50 on the monthly bill of an
10 average resident and another \$10.92 per month to pay for higher fuel costs.”¹⁶
11 “Dominion, and another local supplier, recently filed a proposal to separate data centers into

-
- “Data centers provide positive economic benefits to Virginia’s economic, mostly during their initial construction”
 - “Data centers can generate substantial local tax revenues for localities that have them”
 - “Data center industry is forecast to drive immense increase in energy demand”
 - “Building enough infrastructure for unconstrained data center demand will be very difficult and meeting half that demand is still difficult”
 - “Existing electric utility requirements and process help limit risks associated with system capacity and reliability”
 - “Data centers are currently paying their full cost of service, but growing energy demand is likely to increase other customers’ costs”
 - “Data centers create additional financial risks to electric utilities and their customers”
 - “Data center backup generators emit pollutants, but their use is minimal, and existing regulations largely curb adverse impacts”
 - “Data center water use is currently sustainable, but use is growing and could be better managed”
 - “Localities have allowed data centers to be built near neighborhoods, but some localities are taking steps to minimize residential impacts”
 - “Data center noise near residential areas presents unique challenges and some localities are unsure about their authority to address it”; and
 - “Changes to the state’s data center sales tax exemption could address some policy concerns related to the industry”

¹⁶ Paige Gross, “AI data centers are using more power. Regular customers are footing the bill”, *Missouri Independent*, July 17, 2025, <https://missouriindependent.com/2025/07/17/repub/ai-data-centers-are-using-more-power-regular-customers-are-footing-the-bill/>.

1 their own rate class to protect other customers, but the additional charges demonstrate the price
2 increases that current contracts could pass on to customers.”¹⁷

3 Based on the foregoing, even a utility supplying the data center capital of the
4 world – that has seen a 500% increase in the last 10 or so years – is grappling with the issue of
5 ever-growing large load customers.

6 Q. Does this conclude your supplemental rebuttal testimony?

7 A. Yes it does.

¹⁷ *Id.*

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)	Case No. ET-2025-0184
for Approval of New Modified Tariffs for)	
Service to Large Load Customers)	

AFFIDAVIT OF J LUEBBERT

STATE OF MISSOURI)	
)	ss.
COUNTY OF COLE)	

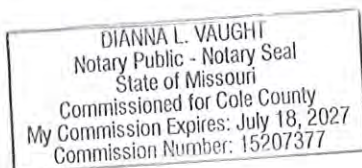
COMES NOW J LUEBBERT and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Supplemental Rebuttal Testimony of J Luebbert*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

J LUEBBERT

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 24th day of October 2025.



Dianna L. Vaughn
Notary Public