

# Exhibit No. 401

**Exhibit No.:** \_\_\_\_\_

**Issue(s):** Large Load Power Service

**Witness/Type of Exhibit:** Bremser/Surrebuttal

**Sponsoring Party:** Amazon Data Services, Inc.

**File No.:** ET-2025-0184

**Surrebuttal Testimony of  
Dr. Albert W. Bremser**

on behalf of Amazon Data Services, Inc.  
in Missouri Public Service Commission File No. ET-2025-0184

**November 3, 2025**

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Surrebuttal Rebuttal Testimony of  
Dr. Albert W. Bremser  
on behalf of Amazon Data Services, Inc.

**I. INTRODUCTION AND QUALIFICATIONS**

**Q. Please state your name and business address.**

A. My name is Albert W. Bremser. My business address is 11401 Lamar Ave., Overland Park, Kansas 66221.

**Q. Have you submitted testimony in this proceeding prior to this filing?**

A. Yes. I provided rebuttal testimony that was filed on September 5, 2025.

**II. EXECUTIVE SUMMARY AND KEY RECOMMENDATIONS**

**Q. What is the purpose of your testimony?**

This testimony provides Amazon's perspective on the rebuttal testimonies filed on September 5, 2025,<sup>1</sup> and October 24, 2025.<sup>2</sup> Those testimonies are responsive to Union Electric Company's ("Ameren Missouri" or "Ameren") proposed Large Load Customers

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<sup>1</sup> In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of New or Modified Tariffs for Service to Large Load Customers, Application and Request for Variance, File No. ET-2025-0184, available at <https://efis.psc.mo.gov/Case/Display/91941>. The September 5, 2025 rebuttal testimony filings are listed in the docket as items 55 to 65. The rebuttal testimonies are the follows: (1) Item 55: Rebuttal Testimony of Jessica Polk Sentell on behalf of Renew Missouri Advocates ("Sentell Rebuttal"); (2) Item 56: Rebuttal Testimony of Lena M. Mantel on behalf of Office of the Public Counsel ("Mantel Rebuttal" or "OPC Rebuttal"); (3) Item 57: Rebuttal Testimony of Geoff Marke on behalf of Office of the Public Counsel ("Marke Rebuttal" or OPC Rebuttal); (4) Item 58: Rebuttal Testimony of Kevin D. Gunn on behalf of Evergy Missouri entities ("Gunn Rebuttal" or "Evergy Rebuttal"); (5) Item 59: Rebuttal Testimony of Ryan Hledik on behalf of Evergy Missouri entities ("Hledik Rebuttal" or "Evergy Rebuttal"); (6) Item 60: Rebuttal Testimony of Staff ("Staff Recommendation" or "Staff Rebuttal"); (7) Item 61: Rebuttal Testimony of James A. Busch on behalf of Staff ("Busch Rebuttal" or "Staff Rebuttal"); (8) Item 62: Rebuttal Testimony of Maurice Brubaker on behalf of Missouri Industrial Energy Consumers or MIEC ("Brubaker Rebuttal" or "MIEC Rebuttal"); (8) Item 63: Rebuttal Testimony of Dr. Carolyn A. Berry ("Berry Rebuttal" or "Google Rebuttal"); (9) Item 64: Rebuttal Testimony of Caroline Palmer ("Palmer Rebuttal" or "Sierra Club Rebuttal"); and (10) Item 65: Rebuttal Testimony of Dr. Albert W. Bremser ("Bremser Rebuttal" or "Amazon Rebuttal").

<sup>2</sup> On October 24, 2025, Staff filed a motion to strike the Busch Rebuttal and replace it with the Supplemental Rebuttal Testimony of J Luebbert. On October 29, 2025, the Commission granted leave to Staff to file the supplemental testimony of J. Luebbert and denied Staff's Motion to Strike the rebuttal testimony of Mr. Busch..The Supplemental Rebuttal Testimony of J Luebbert on behalf of Staff is referred to as the "Luebbert Rebuttal" or "Staff Rebuttal". Thus, "Staff Rebuttal" is referring to the Staff Recommendation, Busch Rebuttal and the Luebbert Rebuttal.

1 (“LLC”) Rate Plan (“Proposed Plan”).<sup>3</sup> It is my understanding that Ameren made this filing  
2 after the Governor of Missouri had signed into law Senate Bill 4, which includes the new  
3 statutory language impacting large load customers.<sup>4</sup>  
4 The Commission should consider the Proposed Plan filed by Ameren on May 14, 2025 as  
5 the starting point for a specialized tariff structure for large load customers, which should  
6 then be modified to take into consideration some of the recommendations made by parties  
7 in this proceeding. The Commission should not consider the Staff Recommendation filed  
8 on September 5, 2025 as the starting point for a specialized tariff structure for large load  
9 customers. The Staff Recommendation includes provisions for bill payment in ten (10)  
10 business days, termination payments immediately due if a bill is paid more than five  
11 business days late, termination payments immediately due if actual usage is less than 50

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<sup>3</sup> In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Approval of New or Modified Tariffs for Service to Large Load Customers, Application and Request for Variance, File No. ET-2025-0184, available at <https://efis.psc.mo.gov/Case/Display/91941>. The May 14, 2025 filing has multiple parts, which are listed as items 2 to 6, and a substitute direct testimony filed as item 8. The documents are as follows: (1) Item 2: Application and Request for Variance (“Application Transmittal Letter”); (2) Item 3: Direct Testimony of Ajay K. Arora (“Arora Direct”); (3) Item 4: Direct Testimony of Robert B. Dixon (“Dixon Direct”); (4) Item 5: Direct Testimony of Matt Michels (Public and Confidential); (5) Item 6: Direct Testimony of Steven M. Wills (“Wills Direct”); and (6) Item 8: Substitute Direct Testimony of Matt Michels (Public, Confidential and Highly Confidential) (“Michels Direct”).

<sup>4</sup> Mike Kohoe, Governor of Missouri, “Governor Kehoe Signs SB 4 Into Law, Securing Missouri’s Energy Future and Economic Growth”, April 9, 2025, available at <https://governor.mo.gov/press-releases/archive/governor-kehoe-signs-sb-4-law-securing-missouris-energy-future-and-economic>; Missouri Senate, SB 4, An Electrical Corporation’s Service Tariff, available at [https://www.senate.mo.gov/25info/bts\\_web/Bill.aspx?SessionType=R&BillID=66](https://www.senate.mo.gov/25info/bts_web/Bill.aspx?SessionType=R&BillID=66); Revised Statutes of Missouri, Title XXV (Incorporation and Regulation of Certain Utilities and Carriers), Chapter 393, Section 130.7, Effective August 8, 2025, available at <https://revisor.mo.gov/main/OneSection.aspx?section=393.130>; “Each electrical corporation providing electric service to more than two hundred fifty thousand customers shall develop and submit to the commission schedules to include in the electrical corporation’s service tariff applicable to customers who are reasonably projected to have above an annual peak demand of one hundred megawatts or more. The schedules should reasonably ensure such customers’ rates will reflect the customers’ representative share of the costs incurred to serve the customers and prevent other customer classes’ rates from reflecting any unjust or unreasonable costs arising from service to such customers. Each electrical corporation providing electric service to two hundred fifty thousand or fewer customers as of January 1, 2025, shall develop and submit to the commission such schedules applicable to customers who are reasonably projected to have above an annual peak demand of fifty megawatts or more. The commission may order electrical corporations to submit similar tariffs to reasonably ensure that the rates of customers who are reasonably projected to have annual peak demands below the above-referenced levels will reflect the customers’ representative share of the costs incurred to serve the customers and prevent other customer classes’ rates from reflecting any unjust or unreasonable costs arising from service to such customers.”

1 percent of expected over three months, and significant levels of individual approvals for  
2 different items for each large load customer that will be needed by the Commission and  
3 will need to be administered by Ameren. Taken together, Staff's Recommendation is  
4 operationally challenging, if not impossible for large load customers, does not provide for  
5 additional customer protections as compared to Ameren's initial application, and is overly  
6 punitive.

7 Amazon supports the concept of a specialized rate structure for large load customers,  
8 generally supports Ameren's Proposed Plan, and recommends that several aspects of  
9 Ameren's proposal require modification to reflect industry operational realities and  
10 regulatory best practices.

11 My testimony is not intended to provide any legal opinions. My testimony intends to be  
12 responsive to the most important issues associated with the rebuttal testimonies filed on  
13 September 5, 2025 and October 24, 2025 by parties in this proceeding. A lack of a  
14 responsive comment to a particular issue or cite for support of a particular issue should not  
15 be interpreted as agreement with the particular issue or cited information.

16 **Q. What are your key recommendations to the Commission regarding the rebuttal**  
17 **testimonies filed in this proceeding?**

18 **A.** The Commission should take the following actions:

- 19 • Reject the proposal set forth in the Staff Rebuttal, which includes the Staff  
20 Recommendation, in its entirety as it contains an unworkable framework and  
21 provisions to provide electric service to Large Load Customers. The Staff proposal  
22 is not commercially reasonable, which could make Missouri uncompetitive for  
23 large load economic development. The Staff proposal will also create a significant

administrative regulatory burden on this Commission, and slow the ability of Ameren to provide electric service to large load customers.<sup>5</sup>

- Reject proposals for data center-only tariffs.<sup>6</sup>

**Q. Have any of your recommendations to the Commission as described in your rebuttal testimony changed?**

A. No.

**Q. Please briefly summarize those original recommendations.**

A. My original recommendations are built on ensuring Missouri's competitive position for attracting economic development while protecting existing customers from inappropriate cost shifting. These recommendations include requesting that the Commission:

- Approve Ameren's Proposed Plan with targeted modifications reflecting operational realities of large load customers and regulatory best practices; and<sup>7</sup>
- Establish a unified Large Load Customer subclass within Service Classification No. 11(M) that serves all large load customers equitably.

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<sup>5</sup> For example, both the Busch Rebuttal and Luebbert Rebuttal advocate implicitly for the Commission to approve any construction and upgrades to electric infrastructure to provide service to Large Load Customers. Busch Rebuttal at 13:13-19 and Luebbert Rebuttal at 3:13-19. "The Commission should require Ameren Missouri, and every other regulated electric utility in Missouri, to provide actual potential customer lists to the Commission and anticipated loads for each customer. Further, the utility should also provide how it plans to meet these potential new loads. This information should be filed confidentially to ensure that the information is not released to the public, but ***the Commission must have the ability to review the information that the utility has prior to allowing construction and upgrades on these facilities***" (bold and italics added to original text).

<sup>6</sup> Marke Rebuttal at 27:19-20 and 45:13. Palmer Rebuttal at 12:8-10. Such a tariff may be discriminatory, and separately inconsistent with electric utility filing requirements as discussed in this testimony at Section IV.B (Critique of Alternative Proposals; Data Center-Only Tariff Proposals). I note that Ameren's current Service Classifications are based on load characteristics, which are the following: Residential Service in Service Classification 1(M); Small General Service in Service Classification 2(M); Large General Service in Service Classification 3(M); Small Primary Service in Service Classification 4(M); Street & Outdoor Area Lighting – Company-Owned in Service Classification 5(M); Street & Outdoor Area Lighting – Customer-Owned in Service Classification 6(M); Large Primary Service in Service Classification 11(M); and Large Transmission Service in Service Classification 12(M). Union Electric Company, Table of Contents, Rates, MO P.S.C Schedule No. 6, 2<sup>nd</sup> Revised, Sheet No. 53, available at <https://www.ameren.com/-/media/rates/missouri/non-residential/electric-rates/rates/uecsheet53tocrates.ashx>

<sup>7</sup> Bremser Rebuttal at 6:5-8:14.

1 **Q. What should the Commission focus on in this proceeding when evaluating Ameren’s**  
2 **proposed tariff and the administrative record in this proceeding?**

3 A. The Commission should focus on determining whether Ameren’s Proposed Plan for the  
4 provision of electric service by Ameren to customers meeting specific load characteristics  
5 should be approved, or approved with modifications considering recommendations made  
6 by parties to this proceeding.<sup>8</sup> The tariff revisions and new tariffs should be evaluated based  
7 on commercial reasonableness for the Large Load Customer subclass and reasonable  
8 protections for existing customers of Ameren.

9 **Q. Are you sponsoring any exhibits other than this surrebuttal testimony?**

10 A. Yes. I am sponsoring Schedule AWB-3.

11 **III. AMEREN’S PROPOSED LARGE LOAD CUSTOMER RATE PLAN**

12 **Q. What is Ameren’s Proposed Plan?**

13 A. Ameren’s Proposed Plan involves the following: (1) proposed modification to the Large  
14 Primary Service (“LPS”) Tariff, which will include new terms and conditions for Large  
15 Load Customers,<sup>9</sup> (2) four new tariff riders as an electric service option for Large Load  
16 Customers,<sup>10</sup> and (3) changes to the Rider FAC (Fuel Adjustment Clause) under the terms  
17 of the LLC Rate Plan that will be implemented in the next general rate case.<sup>11</sup> I have

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<sup>8</sup> I summarize Ameren’s application in my Rebuttal Testimony. Bremser Rebuttal at 9:19-13:13. Ameren’s provision of electric service to its retail customers involves distribution, transmission and generation. Wills Direct at 33:20-22. Bremser Rebuttal at 18:12-15.

<sup>9</sup> Application Transmittal Letter at 5-6: para. 11. Arora Direct at 14:1-18:14. Wills Direct, Schedule SMW-D1.

<sup>10</sup> Application Transmittal Letter at 5-6: para. 11. Arora Direct at 15:16-18:14. Wills Direct, Schedule SMW-D2.

<sup>11</sup> Application Transmittal Letter at 5-6: para. 11. Wills Direct at 51:9-52:2. Wills Direct, Schedule SMW-D3.



1 summarized Ameren's Proposed Plan with more detail in my rebuttal testimony previously  
2 filed in this proceeding.<sup>12</sup>

3 **Q. What customers will be provided service under the Proposed Plan?**

4 A. The customers provided service under the Proposed Plan will be Large Load Customers.  
5 Based on Ameren's Proposed Plan, Ameren has defined the Large Load Customer subclass  
6 as customers that have an expected or actual demand level of 100 MW or more, and take  
7 service at transmission level voltages (i.e. voltage of more than 115 kilovolts ("kV")).<sup>13</sup>  
8 The proposed Large Load Customer subclass will be part of the customer class receiving  
9 service pursuant to the Service Classification No. 11(M) – Large Primary Service Tariff  
10 ("LPS Tariff"), which has modifications proposed by Ameren.<sup>14</sup>

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<sup>12</sup> Bremser Rebuttal at 9:19-13:13.

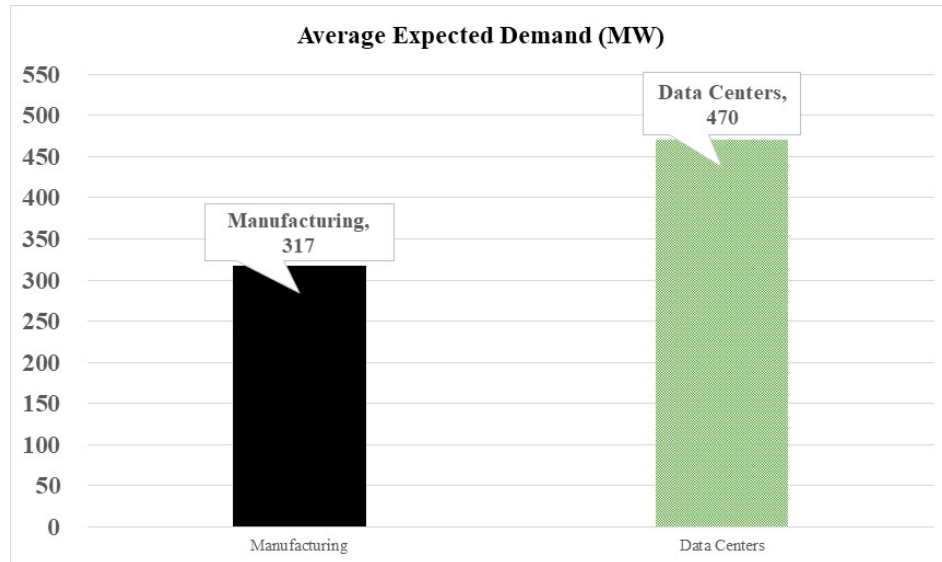
<sup>13</sup> Wills Direct at 9:14-17. The threshold choice of 100 MW is described at Wills Direct at 9:18-11:4. The transmission voltage level requirement is described at Wills Direct at 11:5-15. The new subclass will be created within the current 11(M) classification as described in Arora Direct at 4-7, and Wills Direct at 3:5-6 and 8:12-13.

<sup>14</sup> Wills Direct at 9:12-17. The Proposed LPS Tariff is Schedule SWM-D1 of the Wills Direct.

1 **Q. Will Large Load Customers include both manufacturing and data center customers?**

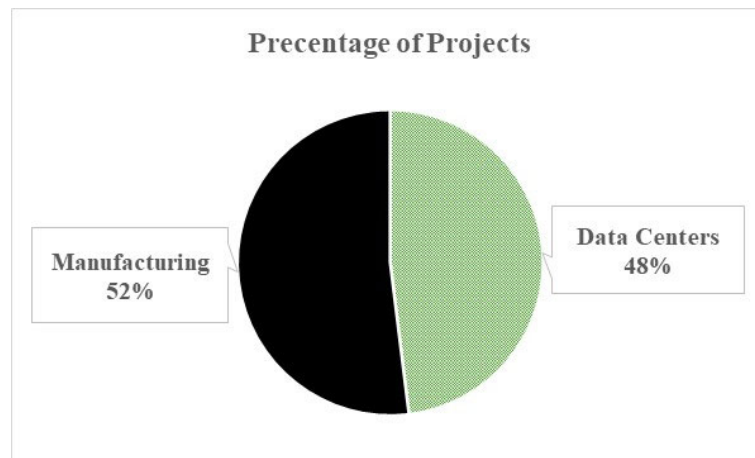
2 A. Yes. The potential average expected demand for customers of 100 MW or more is expected  
3 to include both manufacturing and data center customers as shown below in Figure 1.

4 Figure 1 <sup>15</sup>



5  
6 In terms of potential projects, Figure 2 shows a roughly evenly split between manufacturing  
7 and data centers.

8 Figure 2 <sup>16</sup>



9  

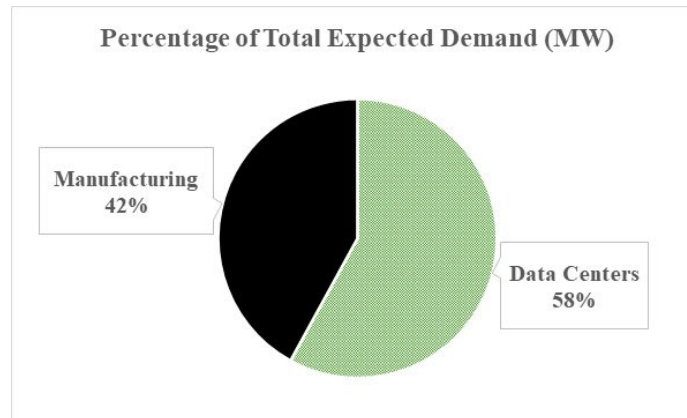
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<sup>15</sup> Schedule AWB-3

<sup>16</sup> Schedule AWB-3

1 In terms of potential total expected demand for electricity, Figure 3 shows that  
2 manufacturing will have about 42 percent of the demand and data centers will have about  
3 58 percent of the demand.

4 Figure 3 <sup>17</sup>



5  
6 **IV. POLICY FRAMEWORK**

7 **A. Economic Development Imperative**

8 **Q. Please describe the services Amazon provides through its data centers.**

9 A. Amazon, through AWS, provides many on-demand technology services.<sup>18</sup> These include  
10 computing, data storage, database services, analytics, and machine learning. Developers,  
11 companies, and enterprises across various industries use these services to scale and manage  
12 their IT (information technology) resources efficiently. AWS supports sectors like  
13 government, healthcare, financial services, and telecommunications. More recently, AWS  
14 has invested heavily in artificial intelligence (“AI”) products and services. These

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<sup>17</sup> Schedule AWB-3

<sup>18</sup> Amazon Data Services develops and operates data centers to support cloud computing services offered by its affiliate, Amazon Web Services, Inc. (together with ADS, “AWS”).

1 innovations could transform how individuals, small businesses, large industries, and  
2 governments operate and increase efficiency.

3 **Q. Could you also describe the role that data centers play in our nation's economy?**

4 A. Data centers play a crucial role in our everyday lives and in our economy. Whenever we  
5 connect to the internet, send an email, or place an order online, we use the cloud computing  
6 capabilities that are hosted at a data center. The infrastructure located inside the data center  
7 helps us every day with common work tasks: e.g., email, online meetings, research, and  
8 more. Data centers support financial services like banking and credit card transactions,  
9 medical services, 911 emergency services, and other critical and non-critical services.

10 It also allows us to work remotely, connect with family and friends on social media, shop  
11 online, travel with GPS, and stream entertainment. Data centers also provide community  
12 benefits. Data centers create jobs, boost income, and generate tax revenue, which can mean  
13 more funding for schools, social services, and other local needs. Additionally, nearly every  
14 sector relies on the cloud-computing services hosted at the data centers to operate more  
15 efficiently and cost-effectively. Nearly every web page accessed around the globe is stored  
16 in a data center. McKinsey & Company estimates that by 2030, cloud computing could  
17 provide globally up to \$3 trillion in earnings value.<sup>19</sup> This value is for enterprises that use  
18 innovative cloud solutions. McKinsey based this estimate on an analysis of 700 use cases,  
19 which involve using digital technologies like software to meet specific goals.

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<sup>19</sup> Raghav Bashambhu et al. Projecting the global value of cloud: \$3 trillion is up for grabs for companies that go beyond adoption, McKinsey Digital, Nov. 28, 2022, available at [https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/projecting-the-global-value-of-cloud-3-trillion-is-up-for-grabs-for-companies-that-go-beyond-adoption#](https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/projecting-the-global-value-of-cloud-3-trillion-is-up-for-grabs-for-companies-that-go-beyond-adoption#/).

1 Amazon has seen its cloud computing customers gain significant value in their industries  
2 through AWS services and data centers. The growth of data centers shows how vital cloud  
3 computing has become for our economy. Access to these services is critical for customers  
4 across government and the private sector.

5 **Q. Has Amazon been a long-term corporate partner in states where it is currently**  
6 **located?**

7 Yes, as recognized by OPC Witness Marke, there are benefits to the state and local  
8 communities from the inclusion of data centers into local economies.<sup>20</sup> Virginia, which has  
9 the longest history of data center development, provides as a good example of these  
10 benefits. Amazon launched its first region globally in Northern Virginia in 2006 and has  
11 demonstrated a longstanding commitment to economic development within the  
12 Commonwealth of Virginia. In Virginia, Amazon has invested in more than 20 renewable  
13 energy projects, which once fully operational, are expected to provide enough energy to  
14 power approximately 300,000 U.S. homes.<sup>21</sup>

15 **Q. Why is Missouri's competitive positioning for large load customers important?**

16 A. Large load customers represent transformational economic development opportunities.  
17 Again, in addition to Amazon's investments across multiple states such as Mississippi,  
18 Indiana, Ohio, Georgia, North Carolina, and Pennsylvania noted in my Rebuttal  
19 Testimony,<sup>22</sup> Amazon's experience in Virginia demonstrates this potential. Since 2011,

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<sup>20</sup> Bremser Rebuttal at 4

<sup>21</sup> Amazon Staff, How Amazon helps data center communities thrive, Amazon, May 7, 2025, available at <https://www.aboutamazon.com/news/aws/amazon-data-center-investment-community-impact>.

<sup>22</sup> Bremser Rebuttal at 3.

1 AWS has invested \$91.5 billion in Virginia through capital and operating expenditures,  
2 contributing an estimated \$30 billion to Virginia's gross domestic product and supporting  
3 an average of 20,700 full-time equivalent jobs annually.<sup>23</sup> In 2024, AWS paid \$542.9  
4 million in property taxes and fees to those counties.<sup>24</sup> Those property tax payments help  
5 fund improvements to schools, public safety, local infrastructure, public sector jobs, and  
6 lowered residential property taxes. In 2023, Amazon announced plans to invest an  
7 additional \$35 billion in Virginia. These investments to develop, construct, and operate  
8 data centers will increase employment in Virginia directly and indirectly. These  
9 investments also include workforce development and education programs to support  
10 communities near Amazon's Virginia data centers. With this in mind, I would advocate  
11 that Missouri employ a competitive and workable regulatory framework to attract similar  
12 investments.

13 **V. CUSTOMER COMPOSITION AND OPERATIONAL REALITIES**

14 **A. Large Load Customer Universe**

15 **Q. Should the Commission treat manufacturing and data center customers differently?**

16 A. No. Both sectors deserve equal regulatory treatment and access to appropriate tariff  
17 structures. Both data center and manufacturing customers require long-term commitments  
18 and substantial infrastructure investments as well as provide significant economic benefits

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<sup>23</sup> Amazon Staff, How Amazon helps data center communities thrive, Amazon, May 7, 2025, available at <https://www.aboutamazon.com/news/aws/amazon-data-center-investment-community-impact>.

<sup>24</sup> Id.

1 to local communities. As a result, it is appropriate for all Large Load Customers to receive  
2 electric service on the same revised tariff under the same terms and conditions.<sup>25</sup>

3 **B. Operational Realities of Data Centers**

4 **Q. What operational characteristics of data centers should the Commission consider?**

5 A. Data centers have several important operational characteristics that regulatory frameworks  
6 should recognize. A 2022 survey by Uptime Institute showed a comparison of server  
7 refresh cycles for 2015, 2020, and 2022, which is shown below in Figure 4.<sup>26</sup> Data center  
8 servers are generally replaced more often than every 15 years, which is the minimum  
9 contract length proposed by Ameren.<sup>27</sup> As of 2022, servers were replaced by roughly half  
10 the survey respondents (47%) at least every four years.<sup>28</sup>

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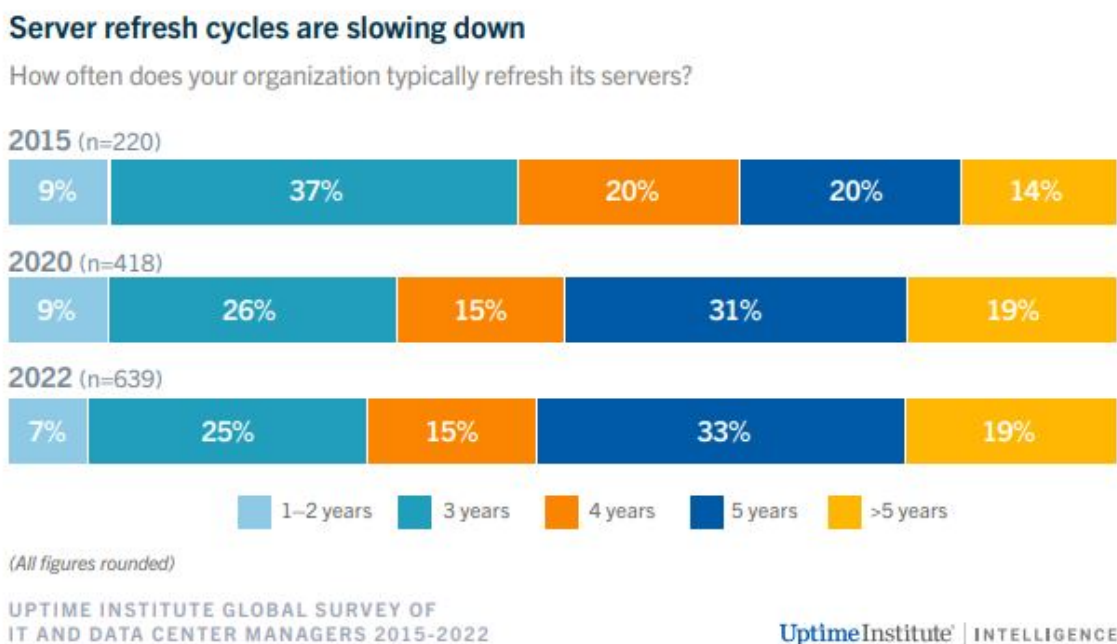
<sup>25</sup> I note that Ameren's current Service Classifications are based on load characteristics, which are the following: Residential Service in Service Classification 1(M); Small General Service in Service Classification 2(M); Large General Service in Service Classification 3(M); Small Primary Service in Service Classification 4(M); Street & Outdoor Area Lighting – Company-Owned in Service Classification 5(M); Street & Outdoor Area Lighting – Customer-Owned in Service Classification 6(M); Large Primary Service in Service Classification 11(M); and Large Transmission Service in Service Classification 12(M). Union Electric Company, Table of Contents, Rates, MO P.S.C Schedule No. 6, 2<sup>nd</sup> Revised, Sheet No. 53, available at <https://www.ameren.com/-/media/rates/missouri/non-residential/electric-rates/rates/uecsheet53tocrates.ashx>

<sup>26</sup> Horizon Technologies, Navigating Hardware Refresh Cycles in the Data Center, Sep. 9, 2025, available at <https://horizontechnology.com/news/data-center-hardware-refresh-cycles/>; Douglas Donnellan et al., Uptime Institute Global Data Center Survey Results 2022, Uptime Institute, July 2024, available at <https://intelligence.uptimeinstitute.com/resource/uptime-institute-global-data-center-survey-2024>.

<sup>27</sup> Willis Direct, Schedule SMW-D1 (Proposed LPS Tariff) at section 8.b (Term) of Sheet 61.5.

<sup>28</sup> For 2022, Figure 1 shows 1-2 years as 7%, 3 years as 25%, and 4 years as 15%. 7% + 25% + 15% = 47%.

Figure 4  
Server Refresh Cycle<sup>29</sup>



Servers are just one type of equipment that is located inside a data center building that is periodically upgraded. For example, customers may also install new, more efficient cooling and lighting systems. These changes to the internal configuration of the data center facility can result in changes to electrical, cooling and data cable configurations, and data equipment rack placement which can cause temporary load reductions.<sup>30</sup>

**Q. Why are these operational characteristics important for tariff design?**

A. Large load tariff provisions, if adopted, must accommodate normal business operations without penalizing customers for routine activities. Provisions that trigger termination fees

<sup>29</sup> Horizon Technologies, Navigating Hardware Refresh Cycles in the Data Center, Sep. 9, 2025, available at <https://horizontechnology.com/news/data-center-hardware-refresh-cycles/>; Douglas Donnellan et al., Uptime Institute Global Data Center Survey Results 2022, Uptime Institute, July 2024, available at <https://intelligence.uptimeinstitute.com/resource/uptime-institute-global-data-center-survey-2024>.

<sup>30</sup> Power Engineers, Mission-Critical Data Center Renovation, <https://www.powereng.com/library/mission-critical-data-center-renovation-segment> (last visited Oct. 29, 2025); Sean Michael Kerner, What is data center modernization, Jan. 22, 2024, available at <https://www.techtarget.com/searchcloudcomputing/definition/data-center->



1 for temporary load reductions such as recommended by Staff, for example, would interfere  
2 with necessary equipment upgrades and maintenance, ultimately harming both customers  
3 and the utility system's long-term efficiency.<sup>31</sup>

4 **C. Operational Realities of Manufacturing**

5 **Q. Can manufacturing facilities have large temporary variability in electric usage?**

6 A. Yes. For example, there can be variability in manufacturing operations due to variability  
7 of supplies to manufacture the product or demand for the product. Ford is laying off  
8 Missouri employees at a Kansas City plant producing F-150 trucks and reducing  
9 production due to a fire at a supplier of aluminum.<sup>32</sup> General Motors temporary laid off  
10 Missouri employees at its Wentzville Assembly Plant from September 29 to October 19  
11 due a parts shortage.<sup>33</sup> In Kentucky, Ford Motor is closing a Louisville assembly plant at  
12 the end of 2025 and then re-tooling the plant for 8-10 months to produce electric vehicles.<sup>34</sup>

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modernization; John Collins, Best practice for modernizing vintage data centers, Eaton, Mar. 2016, available at <https://datacenters.lbl.gov/sites/default/files/Best%20practices%20for%20modernizing%20vintage%20data%20centers.pdf>

<sup>31</sup> "Early Termination: In the event that an LLCs customer's monthly load (in kWh) is 50% or less of its expected load under its updated contract load for 3 consecutive months, the customer will be required to pay, or cause to be paid, all amounts expected for the remainder of the contract under the following charges: Facilities Charge, Demand Charge for Generation Capacity, Demand Charge for Transmission Capacity, Variable Fixed Revenue Contribution, and Stable Fixed Revenue Contribution. A. If a customer anticipates a temporary closure or load reduction related to retooling, construction, or other temporary causation, this anticipated reduction shall not trigger the termination charges described above until the anticipated load reduction has exceeded the anticipated duration by three months." Staff Recommendation at 65:22-66:5.

<sup>32</sup> KCTV5, Ford to lay off hundreds at Kansas City plant impacting F-150 production, October 24, 2025, available at <https://www.kctv5.com/2025/10/24/ford-lay-off-hundreds-kansas-city-plant-impacting-f-150-production/>

<sup>33</sup> Autobody News, GM to Idle Assembly Plant as Parts Shortages Hit Production, September 16, 2025, available at <https://www.autobodynews.com/news/gm-to-idle-assembly-plant-as-parts-shortages-hit-production>; Spectrum News, GM Plant to temporary layoff workers, September 12, 2025, available at <https://spectrumlocalnews.com/mo/st-louis/news/2025/09/12/st-louis-wentzville-gm>

<sup>34</sup> "They will take every single thing out of that plant... they will gut it," UAW Local 862 President Todd Dunn told WHAS11 News. "And then they'll come back and put in all new lines. It'll look like an empty warehouse. They'll go in and take everything out and then they're going to redo the whole plant and set it up to build an all-electric vehicle." WHAS11, Louisville Assembly Plant to temporarily close for remodel in late 2025, local union president says, April 1, 2025 (updated April 2, 2025), available at <https://www.whas11.com/article/news/local/louisville-assembly-plant-close-remodel-2025/417-fbb68519-0672-4662-87f9-c66ff7a9301b>

1 These types of temporary changes in electricity usage are not a stranded asset issue, but  
2 rather an issue a timing of the electricity usage. Large Load Customers will be subject to  
3 minimum charges under Ameren's proposal. Thus, Staff's proposal to require termination  
4 charges if the actual electricity usage in kWh (kilowatt-hours) is 50 percent or less than its  
5 expected usage for three consecutive month is unnecessary and disconnected from  
6 commercial realities. These types of temporary decreases in electric usage are not creating  
7 stranded assets.

## 8 **VI. CRITIQUE OF ALTERNATIVE PROPOSALS**

### 9 **A. Staff Recommendation – Fundamental Flaws**

#### 10 **Q. Why should the Commission reject the Staff Recommendation?**

11 A. The Staff Recommendation contains multiple provisions that would make Missouri  
12 uncompetitive for large load economic development, create unworkable administrative  
13 burdens and result in unnecessarily punitive outcomes. The fundamental flaws include the  
14 following.

#### 15 **1. Unworkable Payment Terms**

16 Staff proposes that bills should rendered by the fifth business day after the end of the  
17 calendar month with payment due by the fifteenth business day of the month issued. This  
18 means payment is due in ten business days.<sup>35</sup> This is a significant shift from Ameren's  
19 proposed thirty (30) days for payments of large load customer bills, and twenty-one (21)  
20 days afforded non-large load customers under Tariff 11(M). The Staff Recommendation  
21 does not provide any justification for why the payment terms must be shorter for large load

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<sup>35</sup> Staff Recommendation at 61:6-16 (Other Terms B and C).

1 customers or the protections this proposal is offering to existing Ameren customers in light  
2 of proposed minimum demand requirements and collateral. On top of that, such drastically  
3 short payment timelines are difficult for large companies, such as Amazon, which may be  
4 processing a significant number of invoices at any given time. Staff further recommends  
5 that a large load customer should be subject to an immediate termination charge if the  
6 customer is more than five business days late in paying a bill.<sup>36</sup> Under Staff's proposal, the  
7 customer is forced to pay a termination fee and would seemingly continue to take service  
8 and make monthly payments. This is not reasonable. There is no justification for requiring  
9 a customer to accelerate 15 years-worth of minimum bills when a utility has security (i.e.  
10 collateral) to draw on if any bills go unpaid. As such, Staff's Recommendation does not  
11 offer any additional protection to existing customers that would not be satisfied by the  
12 minimum bill charges and security provided by the large load customer. These provisions  
13 taken together are commercially unreasonable and overly punitive.<sup>37</sup> A more reasonable  
14 approach would be to allow the same payment compliance period as Ameren has proposed  
15 for the Financial Security Requirements, which is forty-five days<sup>38</sup> with an established  
16 process to ensure that bills are paid.

## 17 **2. Punitive Termination Provisions**

18 Staff's proposal recommending that a large load customer pay termination charges if there  
19 is a 50 percent or lower level of usage over a three month period<sup>39</sup> or has a load reduction

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<sup>36</sup> Staff Recommendation at 66:14-17.

<sup>37</sup> For non-Large Load Customers on the LPS Tariff, the payment term is within twenty-one days from the date of the bill. Willis Direct, Schedule SMW-D1 (Proposed LPS Tariff) at Sheet No. 61.1

<sup>38</sup> Willis Direct, Schedule SMW-D1 (Proposed LPS Tariff) at section 8.h of Sheet No. 61.8.

<sup>39</sup> Staff Recommendation at 66:18-20 (Early Termination at D).

1 that exceeds three months is impracticable.<sup>40</sup> The proposal fails to account for planned  
2 equipment upgrades, maintenance, or facility improvements that temporarily reduce  
3 electric load. A Large Load Customer may be upgrading equipment that uses electricity at  
4 its location or engaged in a major renovation of its facilities.

5 A temporary decrease in electricity usage is not causing a stranded cost. The customer is  
6 also paying a minimum demand obligation under Ameren's Proposed Plan. The purpose  
7 of a minimum bill is to ensure that a utility can recover any stranded costs. As long as a  
8 large load customer is continuing to make monthly billing payments, there are not stranded  
9 costs and no adverse impacts to other ratepayers. Under Staff's proposal, the customer is  
10 forced to pay a termination fee and continues to take service. This is not reasonable and  
11 offers no additional protections to ratepayers.

12 Further, Staff proposes that the Staff recommended termination provisions may only be  
13 waived or changed by the Commission upon Ameren Missouri filing an application with  
14 the Commission.<sup>41</sup> This is also not reasonable. This creates an administrative burden on  
15 the Commission and Ameren as well as commercial uncertainty for the Large Load  
16 Customers of Ameren. This provision means every time a Large Load Customer wants to  
17 do a significant renovation or replacement of equipment that uses electricity, those  
18 customers will need to work with Ameren to file an application with the Commission to  
19 avoid a termination charge.

20 Temporary, time-limited electric usage decreases, as described above, are standard to large  
21 load customers, and should be allowed to provide customers with flexibility without being

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<sup>40</sup> Staff Recommendation at 66:1-5 (Early Termination at A).

<sup>41</sup> Staff Recommendation at 66:30-33 (Early Termination at G).

1 subject to Termination Fee as recommended by Staff.<sup>42</sup> These provisions would penalize  
2 customers for normal business operations and create commercial uncertainty that would  
3 deter investment in Missouri.

### 4 **3. Anti-Competitive Impact**

5 The combined effect of the Staff Recommendation would not only make Missouri  
6 significantly less attractive for large load investment compared to other jurisdictions with  
7 more reasonable and flexible approaches, the uncertainty and operational challenges  
8 resulting from Staff's Recommendation create a question as to whether siting in Missouri  
9 would even be possible. For example, no other jurisdiction that I am aware of applies the  
10 same, or remotely similar, termination provision for late payments or reductions in load  
11 below 50% of contracted demand. Jurisdictions which have successfully adopted large load  
12 tariffs rely on minimum demand, collateral, capacity reduction, and exit fee provisions to  
13 ensure against stranded costs and harm to existing ratepayers.<sup>43</sup> The provisions noted above  
14 would make it nearly impossible for data center load to invest in the state as they would  
15 not be able to comply with the provisions of this proposed tariff. Also, Staff wants electric  
16 service under their proposal to be limited to 33 percent of Ameren Missouri's annual  
17 Missouri jurisdiction load.<sup>44</sup> Such a limit would mean a commercial operation of a Large

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<sup>42</sup> Staff Recommendation at 66:18-20 (Early Termination at D).

<sup>43</sup> See Direct Testimony of Dr. Albert W. Bremser on Behalf of Amazon Data Services, Inc., Appendix B: Discussion of Tariffs and Georgia Public Service Commission "rules" considered in the Wishart Direct Testimony, Case No. PUR-2025-00058, available at <chrome-extension://efaidnbmnnnibpcajpglclefndmkaj/https://www.scc.virginia.gov/docketsearch/DOCS/86sf01!.PDF>

<sup>44</sup> Staff Recommendation at 62:3-4.

1 Load Customer may not be able to expand its facility, which may cause potential Large  
2 Load Customers to consider non-Ameren service area locations.<sup>45</sup>

3 **B. Data Center-Only Tariff Proposals**

4 **Q. Should the Commission approve proposals for data center-specific tariffs?**

5 A. No. Both OPC witness Marke and Sierra Club witness Palmer propose creating separate  
6 tariffs that apply only to data centers.<sup>46</sup> These proposals are flawed for several reasons.

7 OPC witness Marke states: “I am recommending that a 50 MW threshold be set, and I  
8 would recommend that this tariff only apply to data centers given their unique present  
9 circumstances.”<sup>47</sup> This recommendation is targeting a particular type of customer and  
10 ignores the potential large load customers that are manufacturers.

11 Creating separate tariffs for data center large load customers and manufacturing large load  
12 customers with similar load characteristics, electric service requirements, and electric  
13 infrastructure requirements lacks justification and maybe discriminatory.<sup>48</sup> Additionally,

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<sup>45</sup> Staff recommended thirty-three percent limit also in the Evergy proceeding. This suggests Staff wants a limit to cover electric utilities subject to Commission jurisdiction, which would mean Large Load Customers in Missouri may have limited ability to expand within the State of Missouri. Staff Recommendation, Evergy Missouri Metro and Evergy Missouri West, Case No. EO-2025-0154, July 25, 2025 at 69:5.

<sup>46</sup> Marke Rebuttal at 27:19-20 and 45:13. Palmer Rebuttal at 12:8-10.

<sup>47</sup> Marke Rebuttal at 27:19-20.

<sup>48</sup> I note that Ameren’s current Service Classifications are based on load characteristics, which are the following: Residential Service in Service Classification 1(M); Small General Service in Service Classification 2(M); Large General Service in Service Classification 3(M); Small Primary Service in Service Classification 4(M); Street & Outdoor Area Lighting – Company-Owned in Service Classification 5(M); Street & Outdoor Area Lighting – Customer-Owned in Service Classification 6(M); Large Primary Service in Service Classification 11(M); and Large Transmission Service in Service Classification 12(M). Union Electric Company, Table of Contents, Rates, MO P.S.C Schedule No. 6, 2<sup>nd</sup> Revised, Sheet No. 53, available at <https://www.ameren.com/-/media/rates/missouri/non-residential/electric-rates/rates/uecsheet53tocrates.ashx> Customer classes are typically based on load characteristics such as load size and voltage level of customer service. National Association of Regulatory Utility Commissioners, Electricity Utility Cost Allocation Manual, January 1992, p. 22, available at <https://maxxwww.naruc.org/forms/store/ProductFormPublic/electric-utility-cost-allocation-manual-january-1992-edition>

1 this would be inconsistent with filing schedules with this Commission based on load size  
2 as opposed to customer type.<sup>49</sup>

3 **VII. RESPONSE TO SPECIFIC WITNESS CONCERNS**

4 **A. OPC Witness**

5 **Q. Does OPC witness Marke claim that his testimony is focused on regulatory principles**  
6 **regarding cost causation to provide electric service to new large load customers?**

7 A. Yes.<sup>50</sup>

8 **Q. Is OPC witness Marke’s testimony focused on regulatory principles regarding cost**  
9 **causation to provide electric service to new large load customers?**

10 No. The Marke Rebuttal is focused on data centers job creation and artificial intelligence<sup>51</sup>.

11 In other words, he is specifically targeting a particular industry and not providing testimony  
12 on regulatory principles regulated to the tariff as filed by Ameren, which is for all  
13 customers with the load characteristics as specified in the tariff. As explained elsewhere  
14 in this testimony in Section III above, Ameren’s future projects for large loads customers  
15 are roughly evenly split between manufacturing and data centers as shown in Figure 2  
16 above. In terms of potential total expected demand for electricity, Figure 3 above shows

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<sup>49</sup> Section 393.130.7, RSMo. Cited text at Bremser Rebuttal at 16:14-17:2.

<sup>50</sup> “My recommendations largely adhere to enforcing the regulatory principle of cost causation i.e., “growth has to pay for growth”) as well as elements of the precautionary principle (i.e., “better safe than sorry”) in an attempts to mitigate the risk to the public and ensure that revenue from serving the new large load customers must be equal to or greater than a hundred percent of the direct and indirect cost of serving those customers.” Marke Rebuttal at 3:9-13.

<sup>51</sup> “As such, it is crucial to meticulously and honestly evaluate the potential economic advantages of attracting data centers, ...” Marke Rebuttal at 2:11-15. “...even the ethical challenges associated with what is driving the large demand in energy (e.g., artificial intelligence or “AI”) necessitate modifications ...” Marke Rebuttal at 3:5-7. Also, Marke Rebuttal at 4:11-10:6, 16:9-26:10.

1           that manufacturing will have about 42 percent of the demand and data centers will have  
2           about 58 percent of the demand.

3   **Q.    Has the Missouri Department of Economic Development, then-Governor Mike**  
4       **Parson, and Kansas City Mayor Quinton Lucas described new data centers as**  
5       **favorable?**

6   A.    Yes. In a press release from December 2024 issued by the Missouri Department of  
7       Economic Development, those three individuals described favorably a new data center  
8       located in the Kansas City area with an initial investment of \$143 million.<sup>52</sup>

9   **Q.    Does the State of Missouri incentivize the location and expansion data centers?**

10 A.    Yes. I also note it is the tax policy of Missouri to provide a data center sales tax exemption  
11       program, which is mentioned in the December 2024 press release by the Missouri  
12       Department of Economic Development.<sup>53</sup>

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<sup>52</sup> Michelle Hataway, Director of the Department of Economic Development stated: “DED is proud to join our partners in supporting Edged’s impressive new facility in Kansas City,” and “This exciting project exemplifies our state’s ability to attract and support next-generation companies as they invest, innovate, and help Missourians prosper.” Then -Governor Parson stated “Edged’s new facility in Kansas City is the latest example of a leading, high-tech employer choosing Missouri,” and “All across our state, innovative companies are recognizing that we have what it takes to ensure their success – including a strategic location, strong infrastructure, and a skilled workforce.” Kansas City Mayor Quinton Lucas stated “Kansas City is proud to be home to forward-thinking companies driving both environmental stewardship and economic development. It's why we are excited Edged is opening a brand-new sustainable data center in Kansas City, a powerful example of how sustainability and technology can work together,” and “Edged is strengthening Kansas City's position as a leader in the next generation of digital infrastructure, while creating jobs and driving economic growth.” Missouri Department of Economic Development, “Edged Data Centers Opens New Data Center in Kansas City, Investing More Than \$143 Million”, December 12, 2024, available at <https://ded.mo.gov/press-room/edged-data-centers-opens-new-data-center-kansas-city-investing-more-143-million>

<sup>53</sup> Missouri Department of Economic Development, Data Center Sales Tax Exemption Program, available at <https://ded.mo.gov/programs/business/data-center-sales-tax-exemption-program>; Missouri Department of Economic Development, “Edged Data Centers Opens New Data Center in Kansas City, Investing More Than \$143 Million”, December 12, 2024, available at <https://ded.mo.gov/press-room/edged-data-centers-opens-new-data-center-kansas-city-investing-more-143-million>



1   **Q.     Do you agree with OPC witness Marke’s testimony regarding data center job**  
2       **creation?**

3   A.    No. While Marke notes that data centers may create fewer permanent jobs per square foot  
4        than traditional manufacturing, his analysis overlooks several critical economic factors that  
5        the Commission should consider if the Commission considers data center job creation as a  
6        factor when evaluating Ameren’s proposed tariff and the administrative record in this  
7        proceeding.<sup>54</sup> His focus on raw job numbers fails to account for the quality and economic  
8        multiplier effects of data center employment. Data center jobs typically offer higher wages  
9        and require specialized technical skills that can anchor a skilled workforce in Missouri,  
10       creating long-term economic value beyond simple headcount metrics. Furthermore,  
11       Marke's analysis ignores the substantial indirect economic activity generated through  
12       construction, ongoing maintenance, professional services, and supply chain relationships  
13       that extend far beyond direct employment figures.<sup>55</sup> Amazon's \$91.5 billion investment in  
14       Virginia demonstrates the transformative economic impact that can extend well beyond  
15       direct job creation, creating innovation ecosystems that attract complementary businesses  
16       and technology sector development.<sup>56</sup>

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<sup>54</sup> Marke Rebuttal at 4:24-5:10.

<sup>55</sup> Marke Rebuttal at 4:19-6:10.

<sup>56</sup> Since 2011, AWS has invested \$91.5 billion in Virginia through capital and operating expenditures, contributing an estimated \$30 billion to Virginia's gross domestic product and supporting an average of 20,700 full-time equivalent jobs annually. Amazon, How Amazon helps data center communities thrive, May 7, 2025, available at <https://www.aboutamazon.com/news/aws/amazon-data-center-investment-community-impact>.

1 **Q. Do you agree with OPC witness Marke's testimony regarding stranded cost exposure**  
2 **as a result of data centers?**

3 A. No. Marke raises concerns about stranded assets and costs, but his analysis fails to account  
4 for the robust protective mechanisms built into the proposed LLC tariff structure.<sup>57</sup> The  
5 proposed tariff includes appropriate security provisions and early termination protections  
6 that ensure cost recovery, directly addressing his stranded cost concerns. Marke's concerns  
7 about building "the equivalent of a brand-new utility" overlook the fact that Missouri's  
8 growing economy requires infrastructure investment regardless, and large load customers  
9 with minimum obligation charges will provide a predictable revenue stream to support  
10 necessary grid modernization.<sup>58</sup>

11 The Commission should approve a Large Load Customer sub-class as part of the Service  
12 Classification No. 11(M).<sup>59</sup> The Commission should recognize that Large Load Customers  
13 will be subject to minimum billing obligations for the rates paid,<sup>60</sup> and subject to a  
14 minimum term of fifteen years<sup>61</sup>, a Termination Fee<sup>62</sup>, and a Capacity Reduction Fee.<sup>63</sup>  
15 The Commission should approve a Large Load Customer sub-class as part of Service  
16 Classification No. 11(M) without making a distinction between data center and non-data  
17 center Large Load Customers.

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<sup>57</sup> Marke Rebuttal at 29:7-26.

<sup>58</sup> Marke Rebuttal at 29:22-23. Willis Direct, Schedule SMW-D1 (Proposed LPS Tariff) at section 8.c. of Sheet No. 61.5.

<sup>59</sup> Bremser Direct at 6:13-15.

<sup>60</sup> Willis Direct, Schedule SMW-D1 (Proposed LPS Tariff) at section 8.c.

<sup>61</sup> Willis Direct, Schedule SMW-D1 (Proposed LPS Tariff) at section 8.b. of Sheet No. 61.5.

<sup>62</sup> Willis Direct, Schedule SMW-D1 (Proposed LPS Tariff) at section 8.e of Sheet Nos. 61.6 and 61.7.

<sup>63</sup> Willis Direct, Schedule SMW-D1 (Proposed LPS Tariff) at section 8.d. of Sheet Nos. 61.5 and 61.6.

1 **Q. Do you agree with OPC witness Marke's testimony regarding the risks of AI?**

2 A. No. Marke's testimony relies heavily on sensationalized headlines and speculative concerns  
3 rather than providing a regulatory analysis.<sup>64</sup> While he cites various warnings about AI  
4 displacement and risks, Senate Bill 4 establishes technology-neutral requirements, and the  
5 Commission should not discriminate against specific applications or technologies based on  
6 speculative future concerns. The regulatory focus should remain on ensuring appropriate  
7 cost recovery and customer protection based on demonstrated economic principles rather  
8 than speculation about future technology applications. Marke's approach of citing alarming  
9 and speculative headlines about AI risks does not provide a sound basis for regulatory  
10 decision-making when the actual economic and operational benefits can be measured and  
11 protected through appropriate tariff design.

12 **B. Evergy Witnesses**

13 **Q. Do you agree with any aspects of Evergy witnesses' testimony?**

14 A. I agree with Every witness Hledik's conclusion that the Staff Recommendation is  
15 unreasonable, and that Ameren's tariff includes provisions that will attract large loads to  
16 Missouri while protecting against stranded asset risk.<sup>65</sup>

17 **VIII. CONCLUSION**

18 **Q. Can you please summarize your recommendations for this proceeding?**

19 A. The Commission should approve Ameren's Proposed Plan with the modifications outlined  
20 in my Rebuttal Testimony. These changes will create a framework that:

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<sup>64</sup> Marke Rebuttal at 18:11-24:19.

<sup>65</sup> Hledik Rebuttal at 21:3-17 and 22:3-7.

- 1           •       Attracts significant economic development to Missouri;
- 2           •       Ensures appropriate cost recovery for Ameren Missouri;
- 3           •       Protects existing customers from inappropriate cost shifting;
- 4           •       Provides regulatory certainty for large load investments; and
- 5           •       Maintains Commission oversight through comprehensive tariff provisions.

6       The recommended modifications reflect industry practices, are consistent with how other  
7       jurisdictions regulate large load customers, and the operational realities of data center  
8       operations. Approval of these modifications will position Missouri as a competitive  
9       location for large load investments while maintaining the customer protection objectives  
10      underlying Ameren's proposal.

11      The Staff Recommendation should not be starting point for the Commission's evaluation  
12      of an appropriate large load tariff. The Commission should reject the Staff  
13      Recommendation. The Commission should reject the recommendation of OPC witness  
14      Marke to create a data center only tariff as well as the other recommendations provided in  
15      that testimony.

16      **Q.   Does this conclude your surrebuttal testimony?**

17      Yes.

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

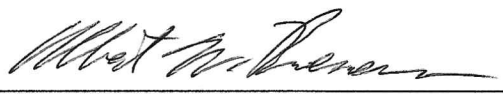
In the Matter of the Application of Union       )  
Electric Company d/b/a Ameren Missouri       )       File No. ET-2025-0184  
for Approval of New Modified Tariffs for       )  
Service to Large Load Customers            )

**AFFIDAVIT OF DR. ALBERT W. BREMSER**

State of Virginia                )  
  ) ss.  
County of Fairfax                )

Dr. Albert W. Bremser, being first duly sworn on his oath, states:

1.     My name is Dr. Albert W. Bremser.
2.     I am of sound mind and lawful age.
3.     Attached to this affidavit and made a part hereof for all purposes  
is my Surrebuttal Testimony I prepared on behalf of Amazon Data Services,  
Inc.
4.     Under penalty of perjury, I declare that the foregoing is true and  
correct to the best of my knowledge and belief.

  
\_\_\_\_\_  
Dr. Albert W. Bremser  
11/03/2025

## Descriptive Statistics for the Ameren Missouri Economic Development Pipeline as of May 9, 2025

Line	Industry	Project Count	Expected Demand (MW)	Average Expected Demand (MW) [c]/[b]= [d]	Percentages for Manufacturing and Data Centers	
					Project Count	Expected Demand (MW)
	[a]	[b]	[c]		[e]	[f]
1	<u>Manufacturing and Data Centers:</u>					
2	Manufacturing	40	12,691	317	52%	42%
3	Data Centers	37	17,401	470	48%	58%
4	Sub-Total Potential	77	30,092	391	100%	100%
5	<u>Other Industries:</u>					
6	Rock quarries/Asphalt plants	3	39	13		
7	Other	19	623	33		
8	Sub-Total Potential	22	662	30		
9	Total Potential	99	30,754	311		

Source: Dixon Direct at 16:1 (Figure 3: Ameren Missouri Economic Development Pipeline as of May 9, 2025)

Notes:

- [a] Lines 2, 3, 6, 7 and 9 are sourced from Dixon Direct at 16:1 (Figure 3: Ameren Missouri Economic Development Pipeline as of May 9, 2025. New & Existing Business Inquiring about Expansions in Ameren Missouri Service Territory).
- [b] Lines 2, 3, 6, 7 and 9 are sourced from Dixon Direct at 16:1 (Figure 3).
- [c] Lines 2, 3, 6, 7 and 9 are sourced from Dixon Direct at 16:1 (Figure 3).
- [d] Column [c] divided by Column [b] for each line.
- [e] Column [e] Line 2 is Column [b] Line 2 divided by Column [b] Line 4, which is  $40/77=0.52$  or 52%.  
Column [e] Line 3 is Column [b] Line 3 divided by Column [b] Line 4, which is  $37/77=0.48$  or 48%.  
Column [e] Line 4 is Column [e] Line 2 plus Column [e] Line 3, which is  $52\%+48\%=100\%$ .
- [f] Column [f] Line 2 is Column [c] Line 2 divided by Column [c] Line 4, which is  $12,691/30,092=0.42$  or 42%.  
Column [f] Line 3 is Column [c] Line 3 divided by Column [c] Line 4, which is  $17,401/30,092=0.58$  or 58%.  
Column [f] Line 4 is Column [c] Line 2 plus Column [c] Line 3, which is  $42\%+58\%=100\%$ .