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**MISSOURI PUBLIC SERVICE COMMISSION**

**File No. EA-2025-0238**

**DIRECT TESTIMONY**

**OF**

**AJAY K. ARORA**

**ON**

**BEHALF OF**

**UNION ELECTRIC COMPANY**

**d/b/a Ameren Missouri**

**St. Louis, Missouri  
June 2025**

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**DIRECT TESTIMONY**

**OF**

**AJAY K. ARORA**

**FILE NO. EA-2025-0238**

**I. INTRODUCTION AND SUMMARY**

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

A. Ajay K. Arora, Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company"), One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

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

A. I am a Senior Vice President and the Chief Development Officer for Union Electric Company d/b/a Ameren Missouri ("AMO").

**Q. Please describe your educational background and employment experience.**

A. I received my Bachelor of Science Degree in Chemical Engineering from Panjab University (India) in May 1992. I received my Master of Business Administration degree from Tulane University in May 1998. I joined former Ameren Corporation subsidiary, Ameren Energy, in June 1998 and held trading and structuring positions in Ameren Energy before supervising the group that priced structured energy products for former Ameren Corporation subsidiary Ameren Energy Marketing Company's wholesale and retail customers from 2002 to 2004. From 2004 to 2007, I was responsible for the analytical group supporting Ameren Missouri's transition into the Midwest Independent Transmission System Operator, Inc. ("MISO"), including reviewing specific market design issues in MISO. In 2007, I led the Ameren Missouri Regional Transmission Organization cost-benefit study that was filed with the Missouri Public Service Commission ("Commission") in File No. EO-2008-0134, and I assumed responsibility for the Quantitative

1 Analysis, Integrated Resource Planning, Load Analysis, and Operations Analysis groups. In  
2 January 2008, as part of my role as Director of Corporate Planning, I assumed the additional  
3 responsibility for the Asset and Trading Optimization group supporting Ameren Missouri. In  
4 November 2011, I assumed additional responsibilities for the corporate Project Management  
5 Oversight and Market Risk Management groups. These groups oversee large utility capital projects  
6 and commodity risk management. In November 2014, I assumed responsibility for the  
7 Environmental Services department as Vice President of Environmental Services and Generation  
8 Resource Planning. The Environmental Services department develops environmental policy and  
9 provides environmental compliance support, which includes the areas of energy delivery,  
10 generation, and transmission. In March 2018, I assumed leadership responsibility for Ameren  
11 Missouri's entire non-nuclear generation operations and energy management function as Vice  
12 President of Power Operations and Energy Management. I assumed the position as Chief  
13 Renewable Development Officer in late 2020 and was promoted to Senior Vice-President and  
14 Chief Renewable Development Office in 2022. In late 2024, I was named Chief Development  
15 Officer and assumed responsibility for the planning and development of the Company's entire  
16 supply-side portfolio, including both dispatchable and intermittent resources.

17 **Q. Have you previously testified in a proceeding at the Missouri Public Service**  
18 **Commission (“Commission”) or before any other utility regulatory agency?**

19 **A.** Yes, I have offered testimony before this Commission on multiple occasions. Most  
20 recently in File Nos. ET-2025-0184, ER-2024-0319, EA-2023-0286, EA-2022-0245, EA-2022-  
21 0244, EA-2019-0181, EA-2021-0202, among others.

1           **Q.     What is the purpose of your Direct Testimony?**

2           A.     The purpose of my Direct Testimony is to explain how both the combustion turbine  
3 generator ("CTG") and battery energy storage system ("BESS") installations (collectively referred  
4 to as the "Big Hollow Projects" or individually as a "Project") proposed at the former Rush Island  
5 coal plant site (to be renamed the "Big Hollow Energy Center") are needed to provide reliable  
6 service to the Company's customers. My Direct Testimony will focus on the need for these  
7 facilities as part of the bigger picture of the Company's overall supply-side resource portfolio,  
8 while Company witnesses Michels' and Meyer's Direct Testimonies will provide details regarding  
9 specific needs the Projects will meet and regarding specific benefits the Projects provide for the  
10 Company and its customers.

11           **Q.     Please summarize the key reasons the Commission should grant a CCN for the**  
12 **Big Hollow Projects.**

13           A.     There are several reasons the Commission should grant Ameren Missouri the  
14 requested CCNs.

- 15           • The Big Hollow Projects are needed to provide reliable service to all of our  
16 customers, due to the likelihood that we will add customers with significant new  
17 large loads<sup>1</sup> in just the next few years, with an extremely high likelihood that we  
18 will add at least 500 megawatts ("MW") or more of new load even before the Big  
19 Hollow Projects are in-service and within just the next few years, we will likely add  
20 another 1,500 MW of new load, and probably more. The Big Hollow Projects are  
21 important components of continuing to develop a balanced supply-side portfolio to

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<sup>1</sup> When I use the phrase "large load customers" I am referring to those customers who would qualify as such under the Large Load Customer Rate Plan under review by the Commission in File No. ET-2025-0184.

1 meet customer needs in a reliable and resilient manner by having dispatchable  
2 resources that are capable of providing at least 70% of the energy our customers  
3 need, with renewables to provide the remaining approximately 30%.

- 4 • Commission approval of the Big Hollow Projects will confirm for prospective large  
5 load customers that the State is supporting Ameren Missouri's obligation to serve  
6 its customers by ensuring that Ameren Missouri will have the generation needed,  
7 both in the near-to intermediate term and longer term, to reliably serve all  
8 customers, including large load customers which we expect to locate in our service  
9 territory.

- 10 • While we fully expect the large load additions discussed above to occur, even if  
11 none of those loads were added, the Big Hollow Projects provide other benefits,  
12 many of which are discussed in greater detail in Mr. Michels' and Mr. Meyer's  
13 Direct Testimonies, including,

- 14 i. Providing flexibility in case supply-chain or other issues delay the  
15 Company's ability to implement a natural gas combined cycle plant by the  
16 end of 2031 to replace the aging Sioux coal-fired energy center, and similar  
17 flexibility if Sioux were to retire earlier than the end of 2031 (e.g., in the  
18 case of a major equipment failure);

- 19 ii. Allowing the Company to take advantage of Rush Island's valuable  
20 interconnection rights, since putting the Big Hollow Projects into service by  
21 September 1, 2028, allows the Company to implement, in the near-term,  
22 additional dispatchable generation without the additional cost or risk  
23 associated with interconnecting that generation to the grid because the Big

1                   Hollow Projects do not need to go through the lengthy, complex, and risky  
2                   MISO Large Generator Interconnection Queue process;

3                   iii. Enabling the Company to meet the letter and spirit of the replacement  
4                   generation requirements of Senate Bill No. 4 ("SB No. 4"), signed by  
5                   Governor Kehoe in April of this year;

6                   iv. Providing a hedge against the risk that environmental regulations accelerate  
7                   earlier retirement of one or more Labadie units or otherwise impact  
8                   Labadie's generation;

9                   v. Making contributions to satisfy the Local Clearing Requirement for MISO  
10                  Zone 5;

11                  vi. Contributing to protecting our customers from the tightness we have seen  
12                  in the MISO market, including as most recently seen in the 2025-2026  
13                  MISO Planning Reserve Auction; and

14                  vii. Supporting the ability to attract additional new large load customers in the  
15                  intermediate- to longer-term even if, while very unlikely, material large load  
16                  customer load did not materialize prior to placing the Big Hollow Projects  
17                  in service in 2028.

1                   **II.      OVERVIEW OF LARGE CUSTOMER LOAD LANDSCAPE IN**  
2                   **MISSOURI**

3           **Q.      Earlier you indicated a high likelihood of adding Large Load Customers in**  
4 **Ameren Missouri's service territory in the near, intermediate, and long-term. Please**  
5 **elaborate.**

6           A.      The Company has already executed construction agreements for completion of  
7 transmission-level infrastructure necessary to serve approximately 2,300 MW of new large load  
8 customer demand within its service territory, starting as early as 2026. Moreover, several of the  
9 customers who make up the 2,300 MW which have signed construction agreements have already  
10 requested that we study adding an additional 1,700 MW of demand. Also, we have already  
11 received additional transmission study requests representing an additional approximately 11,000  
12 MW of potential new load from other potential customers (in addition to the 2,300 MW and 1,700  
13 MW referenced earlier) looking to locate in our service territory. And there is a significant pipeline  
14 (totaling about 30,000 MW) of additional potential Large Load Customer additions beyond the  
15 approximately 15,000 MW of load I just discussed. While it is very likely the case that not all of  
16 this load will in fact locate and materialize in Ameren Missouri's service territory, it is easy to see  
17 that even if only a small fraction (e.g., just 5%) of this load does materialize, we need additional  
18 dispatchable generation to serve it.

19          **Q.      Why is it important to demonstrate to prospective new loads that the State is**  
20 **supportive of adding the generation Ameren Missouri needs to reliably serve them and all**  
21 **customers?**

22          A.      Because large load customers have options as to where to locate. We are seeing  
23 numerous jurisdictions across the United States that are experiencing significant interest from large



1 customers, particularly in the data center sector. While Northern Virginia, Dallas, Texas, California  
2 (with key markets in Ashburn and Silicon Valley), and Chicago, Illinois have historically been the  
3 most established hubs for these kinds of investments, the growth in demand for data services is  
4 creating many other potential expansion markets across the United States, if those markets take  
5 the steps needed to serve them. Missouri has a clear opportunity to be one of these expansion  
6 markets. In fact, in the last couple of years, data center companies have announced significant  
7 investments, to the tune of billions of dollars, in states such as Ohio, Indiana, Mississippi,  
8 Louisiana, Wisconsin, and Arizona, to name just a few. Large data center customers have  
9 traditionally preferred to expand into locations where they already have significant operations. The  
10 interest in locating in our state, and in Ameren Missouri's service territory specifically, presents  
11 Missouri and Ameren Missouri with a huge, once-in-a-lifetime opportunity to attract these kinds  
12 of beneficial loads and the vital economic development and infrastructure investments they will  
13 spur in our region, which can be done in a manner that meets the needs of the new customers while  
14 also being fair to all customers. But we must implement new generation to take advantage of this  
15 opportunity.

16 **Q. Does the State recognize such benefits?**

17 A. Yes, I believe it does, as evidenced by the Department of Economic Development's  
18 engagement to attract such loads and by existing state programs specifically designed to attract  
19 customers who would qualify under the Company's Large Load Rate Plan filing in File No. ET-  
20 2025-0184. Similarly, Missouri Governor Mike Kehoe has been very supportive of supporting  
21 long-term economic development in the state as indicated by his statement when he recently signed  
22 SB No. 4 into law: "With this legislation, Missouri is well-positioned to attract new industry,  
23 support job growth, and maintain affordable, reliable energy for our citizens," said Governor Mike

1 Kehoe. 'This is about powering Missouri for Missourians and not relying on other states and  
2 countries to produce our power. This legislation strengthens our economic development  
3 opportunities, helps secure our energy independence, and provides consumer protections to build  
4 a resilient energy future for generations to come.'"<sup>2</sup> As noted earlier, a critical component of  
5 serving new large load customers is to build the generation needed to serve them in a timely  
6 manner, like the Big Hollow Projects, for which we need the Commission's approval.

7 **Q. What are some of the challenges regulated utilities face in interconnecting**  
8 **these kinds of customers?**

9 A. The main challenge utilities face in meeting their regulatory obligation to connect  
10 large load customers to their system is building enough generation in a timely manner to provide  
11 capacity and energy to reliably serve all customers while meeting the timelines for ramping up to  
12 the full demand that the new customers need. In addition, timely construction of local transmission  
13 infrastructure to connect the new customers to the electric system is another key challenge for  
14 utilities. This CCN filing relates to the Company's need to address the first and the main challenge  
15 -- that is, to build new generation in a timely manner to meet the Company's regulatory obligations  
16 to reliably serve all load seeking to connect to the Company's system.

### 17 **III. THE NEED FOR DISPATCHABLE CAPACITY**

18 **Q. Why are the Big Hollow Projects the right projects at this time?**

19 A. As I discuss in greater detail in my Direct Testimony below (and as addressed in  
20 Company witnesses Michels' and Meyer's Direct Testimonies), we are short capacity given the  
21 loads that we expect to have on our system. Both the CTG Project and the BESS Project provide

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<sup>2</sup> Press Release, Governor Kehoe's Office, April 9, 2025 (quoting the Governor).

1 the reliable, dispatchable, and flexible capacity we need to ensure reliable service to all our  
2 customers. More specifically, we are short of capacity needed to ensure resource adequacy to  
3 reliably serve all customers given the expected new customer demand that is likely to start ramping  
4 up as soon as next year and continuing to ramp up thereafter.

5 Moreover, if we do not utilize the existing and valuable Rush Island interconnection rights  
6 by September 1, 2028, we will face significant risks associated with later needing to navigate and  
7 complete the lengthy and complex MISO Large Generator Interconnection Queue process, which  
8 not only could jeopardize having dispatchable generation added to our system at the time we need  
9 it, but could expose the Company and its customers to significant network upgrade costs that we  
10 will not incur because we avoid that complex process by implementing the resources at Rush Island  
11 prior to September 1, 2028.

12 **Q. Please elaborate on why a simple cycle natural gas CTG plant is an important**  
13 **resource to meet the Company's and its customers' needs?**

14 A. Natural gas-fired simple cycle CTGs are very flexible, dispatchable resources that  
15 play a key role in ensuring reliability for all customers. Such units, with their quick startup and  
16 ramping capabilities, can provide energy rapidly in times of peak system conditions, and can cost-  
17 effectively partner with zero fuel cost and carbon free renewable generation to provide energy  
18 around the clock. In addition, these peaking generation resources can run for multiple days under  
19 extreme weather and peak system demand situations, providing dispatchable generation that is  
20 available on-demand whenever it is needed to support reliable operations. Also, natural gas  
21 peaking generation can be developed and placed in service in about three years, which provides  
22 the ability to build dispatchable generation in a timely manner to meet new large load customer  
23 demand. Finally, it is well-recognized that natural-gas fired generation is important to ensuring

1 reliable operations, as evidenced by the North American Electric Reliability Corporation's 2025  
2 Summer Reliability Assessment, "Natural-gas-fired electricity generation broke records last  
3 year— highlighting the criticality of natural gas in meeting electric demand."<sup>3</sup>

4 **Q. Please elaborate on why the Big Hollow BESS is also an important resource to**  
5 **meet the Company's and its customers' needs?**

6 A. Similar to the natural gas CTG units, BESS are very flexible and dispatchable resources  
7 that are available to meet peak demand conditions every day. Specifically, BESS provide numerous  
8 benefits, including the following: (1) they can be charged when market prices are low and  
9 discharged during peak system conditions, (2) they can be charged and discharged more than once  
10 a day, (3) they have the ability to be charged by excess renewable energy on the electric system  
11 and thereby generate 24/7 hourly matching of carbon free energy that is important for large load  
12 customers, (4) they are agnostic to the fuel required for charging and therefore are not subject to  
13 natural gas price volatility, (5) they are able to provide almost instantaneous ramp capabilities and  
14 support ancillary services requirements in MISO, and (6) they can be deployed in a timely manner  
15 – in around 2 years – to meet new large load customer demand. They are also cost-effective for  
16 Ameren Missouri and its customers, as discussed in detail in Mr. Michels' Direct Testimony, and  
17 the ability to deploy them relatively quickly makes them especially well-suited to the Company's  
18 needs at this time given the expected ramp-up of large customer loads starting in the next year or  
19 two. For these reasons, utilities have installed hundreds of MWs of BESS projects and are planning  
20 to construct thousands of additional MWs of BESS.

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<sup>3</sup> NERC 2025 Summer Reliability Assessment, p. 7.  
[https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC\\_SRA\\_2025.pdf](https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_SRA_2025.pdf)

1           **Q.     You discussed the benefits of each technology. Is there a benefit of deploying**  
2 **them together?**

3           A.     Absolutely. In addition to taking advantage of the entirety of the valuable  
4 interconnection rights at the Rush Island site, there are other benefits to our generation fleet arising  
5 from having diverse resource types. While both resources are peaking resources, when they are  
6 deployed together, the combination creates significant flexibility and dispatchability to enhance  
7 reliability. While both of the two resources are extremely flexible for addressing peak system  
8 conditions, they have different operational flexibility that can be beneficially leveraged to address  
9 system conditions at all times to maintain reliability. At any given time, the MISO market operator  
10 can determine which resource is best used at that particular time for address ramping needs for  
11 reliability, fast ancillary services support, energy needs, etc. A benefit of having batteries available  
12 for ancillary service requirements, meeting intraday energy needs or intra-hour ramping needs, is  
13 that the batteries' availability can allow natural gas CTGs to be used when peak system conditions  
14 are more challenging since CTGs have the ability to generate continuously as needed over several  
15 days to ensure resiliency in the system. As cited in the North American Electric Reliability  
16 Corporation's 2025 Summer Reliability Assessment, "Battery resource additions are helping  
17 reduce energy shortfall risks that can arise from resource variability and peaks in demand. In Texas,  
18 California, and across the U.S. West, the influx of battery energy storage systems (BESS) in recent  
19 years has markedly improved the ability to manage energy risks during challenging summer  
20 periods."

#### IV. RESOURCE ADEQUACY AND PLANNING

**Q. What steps has Ameren Missouri taken to ensure that it has the generation needed to ensure reliability and to meet its obligations of serving existing and new customers that elect to take service under its approved tariffs?**

A. In the short term, prior to constructing the Big Hollow Projects, we will secure capacity from the capacity market or bilaterally, as well as gaining capacity in the next year or two from other supply-side additions the Commission has already approved – the Castle Bluff CTG and the Huck Finn, Boomtown, Vandalia, Split Rail, Cass County, and Bowling Green solar facilities. We have completed adding oil backup capabilities to the Peno Creek CTG facility to cover winter capacity needs and are in the process of doing the same at the Audrain CTG facility. With respect to our overall resource planning, given the expected large load additions and the reduction in our demand-side programs (and the lower level of MW savings from those programs) approved in our last MEEIA docket, we submitted a new Preferred Resource Plan in February 2025 that will ensure the Company has the necessary capacity to meet the demand of its existing and anticipated new large load customers in a timely and reliable manner in the near term through 2030, as well as longer term through the 20-year planning horizon. In his Direct Testimony, Company Witness Michels outlines the Company's capacity position through the next 20 years as part of its integrated resource planning process.<sup>4</sup> As can be seen from the charts in Mr. Michels' Direct Testimony, based on the generation projects for which Ameren Missouri has received CCNs and which it is actively constructing (but without the Big Hollow Projects), Ameren Missouri is

<sup>4</sup> Company witness Meyer's Direct Testimony also discusses the Company's position from a shorter-term market view.

1 short of capacity required to serve expected new large load customers. The Company therefore has  
2 a need to build new generation resources to meet its capacity needs to fulfill its obligations to  
3 provide reliable electric service to its existing and new customers.

4 **Q. What are some of the key highlights of the Company's 2025 Preferred**  
5 **Resource Plan for the next five years through 2030?**

6 A. The Company's 2025 Preferred Resource Plan has the following key elements for  
7 the next five years that affect the Company's ability to reliably meet its expected customer capacity  
8 and energy needs:

- 9 1. The retirement of approximately 490 MW of dispatchable capacity located in Illinois  
10 by 2030 due to the requirements of the Illinois Clean Energy and Jobs Act;
- 11 2. The addition of approximately 2,600 MW of new dispatchable capacity by 2030,  
12 including both natural gas and battery energy storage; and
- 13 3. The addition of approximately 3,200 MW of solar and wind energy by 2030.

14 This mix of dispatchable and renewable generation ensures that the Company can meet its  
15 goals to provide reliable, cost-effective, and clean capacity and energy to all of its customers –  
16 existing and new.

17 **Q. What are the Company's goals to ensure reliability for all its customers –**  
18 **existing and new?**

19 A. To ensure reliability for all its customers, the Company has two main goals. First,  
20 to continue to conduct robust integrated resource planning analysis to ensure that the Company  
21 has sufficient dispatchable capacity with enough reserve margin to meet its peak retail load demand  
22 needs even in extreme weather and adverse system reliability conditions. And second, to ensure a

1 balanced mix of dispatchable and renewable generation resources to provide cost effective energy  
2 during all hours of every day for all customers in a reliable and clean manner.

3 **Q. How is the Company ensuring it has adequate reserve margin to serve all**  
4 **customers even under extreme weather conditions?**

5 A. The Company is implementing its Preferred Resource Plan to ensure reliability for  
6 all customers. Company witness Michels provides in his Direct Testimony various charts that show  
7 the Company's short capacity position as well as charts that demonstrate that the implementation  
8 of the Company's Preferred Resource Plan over the next 5 years provides sufficient reserve margin  
9 to serve existing and currently expected new customers and significantly mitigate reliability risks  
10 arising from extreme weather conditions. The resources included in this CCN filing are required  
11 to ensure that the Company has sufficient capacity to meet its expected customer needs. Since the  
12 Company recognizes that the resources included in this filing are required to meet expected  
13 customer needs, the Company has contracted for CTG production slots for key equipment to ensure  
14 that these can be manufactured in a timely manner to complete the construction of the Big Hollow  
15 CTGs, as discussed in detail in Company witness Stumpf's Direct Testimony. In addition, as  
16 Company witness Wibbenmeyer's Direct Testimony discusses, the Company has also ordered  
17 equipment to safe harbor tax credits for the Big Hollow BESS Project. Further, as both Messrs.  
18 Stumpf's and Wibbenmeyer's Direct Testimonies discuss, the Company is actively negotiating with  
19 engineering, procurement and construction contractors to ensure that, once approval of these  
20 filings is obtained, construction of these Projects can be completed in a timely and cost-effective  
21 manner to meet the Company's obligation to meet its customer's capacity and energy requirements.



1           **Q.     In its Preferred Resource Plan filed in February 2025, for what amount of new**  
2 **load did the Company plan?**

3           A.     As outlined in Company witness Matt Michel's testimony, the Company  
4 analyzed seven different load scenarios anchored primarily around the following three load growth  
5 scenarios, all of which have at least 500MW of new large customer load by 2027:

- 6           •     A high case of 2,000 MW of new demand growth by 2032 and starting in 2026.
- 7           •     A base case of 1,500 MW of new demand growth by 2032 and starting in 2026.
- 8           •     A low case of 500 MW of new demand growth by 2032.

9           **Q.     What is the Company's capacity position in a scenario wherein the Company**  
10 **attracts 2,000 MW, or 1,500 MW of new load by 2032 without approval of the Big Hollow**  
11 **Projects in this case?**

12          A.     As I mentioned above, the Company has signed 2,300 MW of construction  
13 agreements with customers that included non-refundable deposits to construct the transmission  
14 infrastructure to connect loads in a timely manner. Therefore, planning for the 2,000 MW and  
15 1,500 MW cases included in the Preferred Resource Plan is appropriate. As Figures 4, 5, 11, and  
16 12 from Company's witness Michels' Direct Testimony show, without the Big Hollow Projects, the  
17 Company is short of capacity needed to meet its obligation to serve existing and new expected  
18 customer demand, demonstrating the need for the Big Hollow Projects

19          **Q.     What is the Company's expectation of the demand growth that it will attract?**

20          A.     As I noted earlier, the Company already has signed construction agreements with  
21 significant nonrefundable deposits for 2,300 MW of new Large Load Customer demand. In  
22 addition, the Company continues to receive interest from Large Load Customers seeking to take

1 electric service from the Company, including customers that have already signed construction  
2 agreements seeking additional demand at those same or nearby sites. Based on the demand that  
3 the Company is witnessing, I am confident that the planning cases in the 2025 Preferred Resource  
4 Plan will materialize. While it is certainly possible that the Company could see 2,000 MW of new  
5 demand by 2032 or more, I am very confident that the Company will see *at least* 500 MW of new  
6 demand in just the next couple of years. As I indicated before, the resources in this filing are needed  
7 to prudently plan for serving all customers under any of the new load scenarios analyzed in the  
8 2025 Preferred Resource Plan.

9 **Q. You earlier mentioned that one of the Company's planning goals is to have a**  
10 **balanced portfolio. Please explain.**

11 A. The Company's goal is to ensure that around 70% of the energy required to serve  
12 all customers in all hours of every year is obtained from dispatchable resources to maintain  
13 reliability. This dispatchable portfolio consists of a mix of baseload and peaking generation  
14 comprised of nuclear, coal, natural gas, hydro, and battery storage resources. We plan to obtain the  
15 remaining approximately 30% of required energy from zero fuel cost renewable energy resources.  
16 The Big Hollow Projects are a key part of meeting that 70% goal, given that portions of its existing  
17 dispatchable capacity will continue to retire (approximately 490 MW by 2030 and the aging Sioux  
18 plant shortly thereafter) from the Ameren Missouri system.

19 **Q. Has the Company determined that providing approximately 30% of the**  
20 **energy its customers need from renewable energy resources is an appropriate level to ensure**  
21 **reliability and cost-effective energy?**

22 A. We have. Renewable energy projects allow the Company to serve its customers  
23 with zero fuel cost and carbon-free energy. In addition, renewable projects that are completed in a

1 timely manner can also benefit the Company's existing customers with significant federal tax  
2 credits to reduce the cost impact of these generation resources. Moreover, MISO studies indicate  
3 that around 30% renewable generation can be reliably integrated into the MISO system, and we  
4 have evidence that about 30% renewable generation has been reliably integrated by other  
5 Independent System Operators. However, there is also evidence that once renewable energy  
6 exceeds the 35% or so on a system, additional dispatchable resources that would not be needed at  
7 renewable penetration levels below 35% may need to be added to maintain reliability. Considering  
8 these facts, the Company determined that maintaining renewable energy at around 30% strikes an  
9 appropriate balance between utilization of zero fuel cost and carbon free renewables and  
10 dispatchable resources, including natural gas-fired and nuclear resources. This balance will ensure  
11 reliability, take advantage of federal tax credits, and benefit all customers while also helping our  
12 existing commercial and industrial customers and new large load customers to achieve their  
13 sustainability goals.

14 **Q. Does this conclude your testimony?**

15 **A. Yes.**

In the Matter of the Application of Union Electric )  
Company d/b/a Ameren Missouri for Permission and )  
Approval and Certificate of Public Convenience and ) File No.: EA-2025-0238  
Necessity Authorizing it to Construct a New Generation )  
Facility and Battery Energy Storage System )

**STATE OF MISSOURI** )  
 ) ss  
**CITY OF ST. LOUIS** )

My name is Ajay K. Arora, and hereby declare on oath that I am of sound mind and lawful age; that I have prepared the foregoing *Direct Testimony*; and further, under the penalty of perjury, that the same is true and correct to the best of my knowledge and belief.

Sworn to me this 26<sup>th</sup> day of June 2025.