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and MISO Utilization  
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**MISSOURI PUBLIC SERVICE COMMISSION**

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

**DIRECT TESTIMONY**

**OF**

**ANDREW M. MEYER**

**ON**

**BEHALF OF**

**UNION ELECTRIC COMPANY**

**D/B/A AMEREN MISSOURI**

**St. Louis, Missouri  
June 2025**

## **TABLE OF CONTENTS**

|             |                                                            |           |
|-------------|------------------------------------------------------------|-----------|
| <b>I.</b>   | <b>INTRODUCTION AND PURPOSE OF TESTIMONY .....</b>         | <b>1</b>  |
| <b>II.</b>  | <b>SATISFYING MISO RESOURCE ADEQUACY OBLIGATIONS.....</b>  | <b>3</b>  |
| <b>III.</b> | <b>NEW MISSOURI UTILITY LEGISLATIVE REQUIREMENTS .....</b> | <b>13</b> |
| <b>IV.</b>  | <b>GAS SUPPLY AND MISO UTILIZATION .....</b>               | <b>14</b> |
| <b>V.</b>   | <b>CONCLUSION .....</b>                                    | <b>17</b> |

**DIRECT TESTIMONY**

**OF**

**ANDREW M. MEYER**

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

1                   **I. INTRODUCTION AND PURPOSE OF TESTIMONY**

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

3           A. Andrew M. Meyer, Union Electric Company, d/b/a Ameren Missouri  
4 ("Ameren Missouri" or "Company"), One Ameren Plaza, 1901 Chouteau Avenue, St.  
5 Louis, Missouri 63103.

6           **Q. What is your position with Ameren Missouri?**

7           A. I am Senior Director, Energy Management & Trading for Ameren Missouri.

8           **Q. What are your responsibilities as Senior Director, Energy Management**  
9 **& Trading?**

10          A. I am responsible for Ameren Missouri's generation and load asset  
11 management in the wholesale energy markets. This includes real-time operation of the  
12 generation fleet within the applicable Regional Transmission Organization ("RTO");  
13 procurement of nuclear fuel, fossil fuels, and emission control commodities; financial and  
14 physical hedging of any energy, capacity, congestion-rights, or related exposures; and RTO  
15 stakeholder relations. I am also responsible for gas supply procurement for the Local  
16 Distribution Company ("LDC"), generation performance monitoring, NERC<sup>1</sup> compliance  
17 oversight, and operational responsibility for the renewable generation fleet and combustion  
18 turbine generator fleet.

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<sup>1</sup> North American Electric Reliability Corporation.

1           **Q.     Have you previously testified in a proceeding at the Missouri Public**  
2           **Service Commission ("Commission") or before any other utility regulatory agency?**

3           A.     Yes, I have offered testimony before this Commission on multiple  
4           occasions, most recently in File Nos. EA-2024-0237, ER-2024-0319, ER-2022-0337, ER-  
5           2021-0240, ER-2019-0335, ER-2016-0179, among others.

6           **Q.     What is the purpose of your Direct Testimony in this proceeding?**

7           A.     The purpose of my Direct Testimony is to support the Company's  
8           application for a Certificate of Convenience and Necessity ("CCN") for a natural gas  
9           simple cycle ("NGSC") generation facility and a battery energy storage system ("BESS")  
10          project (individually, "Project" and collectively, "Projects"), which will be located at the  
11          site of the former coal-fired Rush Island Energy Center in Festus, MO, which the Company  
12          will refer to as the Big Hollow site.

13          My testimony discusses the benefit of the Projects in satisfying the Company's  
14          resource adequacy obligations within the Midcontinent Independent System Operator  
15          ("MISO"). This includes the Projects' contributions to satisfying MISO's Planning Reserve  
16          Margin Requirement ("PRMR") and Local Clearing Requirement ("LCR"). I also discuss  
17          how both Projects will receive an initial capacity accreditation from MISO that reflects  
18          their value as dispatchable resources.

19          The Projects will also play a crucial role in complying with recently approved  
20          Missouri legislation that establishes certain reliability mechanisms for utility resource  
21          planning. The Projects will contribute to satisfying the new obligation to demonstrate how  
22          RTO resource adequacy obligations will be satisfied on a forward basis, as mandated by  
23          the statute.

1 Finally, my testimony discusses gas supply for the NGSC Project, and further, how  
2 the Company anticipates utilizing the Projects in the MISO Energy and Ancillary Service  
3 market.

4 **II. SATISFYING MISO RESOURCE ADEQUACY OBLIGATIONS**

5 **Q. Please provide a brief explanation of the MISO resource adequacy**  
6 **construct?**

7 A. In March 2008, the Federal Energy Regulatory Commission ("FERC")  
8 approved the MISO's initial voluntary capacity auction "to allow LSEs ("Load Serving  
9 Entities") with insufficient capacity to satisfy the resource adequacy requirements with  
10 planning resources from market participants that have excess planning resources."<sup>2</sup> This  
11 construct quickly transitioned into the MISO capacity market framework that is still largely  
12 in effect today, as FERC approved the MISO's filing for a mandatory, annual construct on  
13 October 1, 2012, with the intent "to achieve system reliability in operating and planning  
14 horizons at the lowest costs, *as well as to complement state resource adequacy planning*  
15 *processes*."<sup>3</sup> This construct established a Planning Resource Auction ("PRA") in advance  
16 of a single planning year, removed participation barriers, and created local capacity market  
17 signals.

18 A key aspect of the construct is the financial incentives. That is, by ensuring that  
19 generators were compensated for their reliability contributions, an incentive is created for  
20 the LSEs to procure and/or build adequate capacity. The LSEs are charged with the

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<sup>2</sup> Order on Resource Adequacy Proposal, ER11-4080-000, 139 FERC ¶ 6199, 62365 (June 11, 2012) (emphasis added).

<sup>3</sup> MISO, Filing to Enhance RAR By Incorporating Locational Capacity Market Mechanisms; ER11- 4081-000 at ¶Pg 3 (filed July 20, 2011). We generally refer to this construct as the MISO "Resource Adequacy Construct."

1 financial obligations of demonstrating resource adequacy compliance. Generators and  
2 other planning resources, whether owned by the LSEs or bilaterally purchased capacity,  
3 are paid the Auction Clearing Price ("ACP"). The financial consequences of the PRA are  
4 what create a financial incentive for LSEs to build or obtain sufficient local resources to  
5 ensure reliability.

6 In August 2022, FERC approved significant changes to the MISO capacity  
7 construct, changing the annual (single planning year) approach into four seasonal planning  
8 windows within each annual period, to identify the unique reliability needs of each season  
9 and align resource availability with seasonal needs. Each season has a unique Planning  
10 Reserve Margin ("PRM"),<sup>4</sup> and unique Zonal Import<sup>5</sup> and Export Limits. Additionally,  
11 the MISO accreditation rules for Capacity Resources changed from an annual Unforced  
12 Capacity ("UCAP") method to Seasonal Accredited Capacity ("SAC") method for thermal  
13 resources. The new seasonal construct, using accreditation values announced by the MISO  
14 in late 2022, did not begin until its use in the PRA for the 2023-24 Planning Year.<sup>6</sup>

15 In March 2024, the MISO again filed with FERC to make a significant change to  
16 the accreditation methodology for both thermal and renewable resources, introducing the  
17 Direct Loss of Load ("DLOL") methodology. This construct change has been approved,  
18 and the first auction utilizing this methodology will be in the PRA for planning year 2028-  
19 29.

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<sup>4</sup> The PRM is the percent of capacity above forecasted load needed to show resource adequacy.

<sup>5</sup> Capitalized terms/phrases used in my testimony that are not otherwise defined have the meanings given to them in the MISO's Energy Markets and Ancillary Services Tariff.

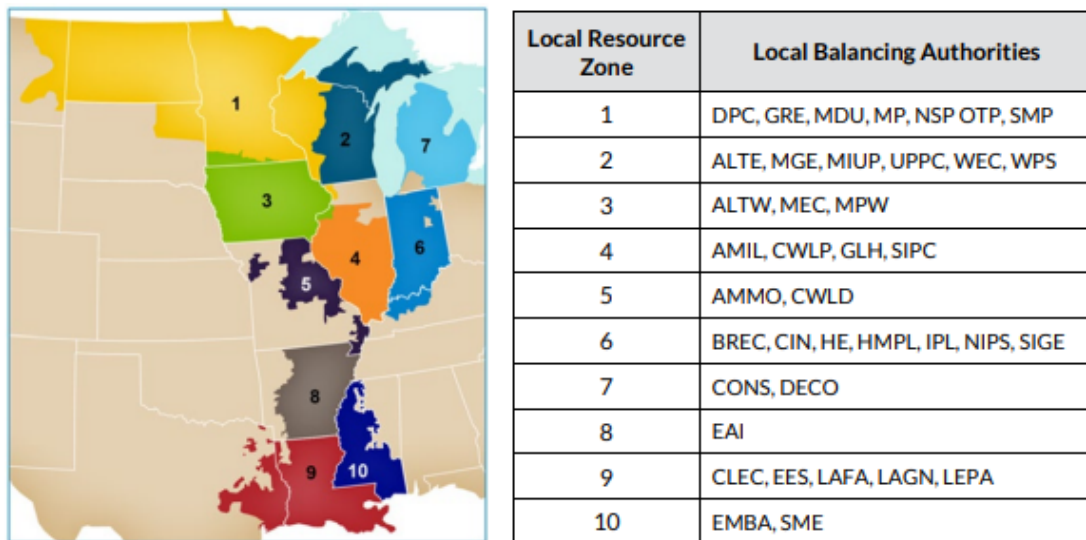
<sup>6</sup>The MISO Planning Years are from June 1 to May 31 of the following year.

**Q. You mention the local capacity market signals of the MISO's current resource adequacy rules. How does this work?**

A. The MISO PRA solves for two resource adequacy measures: (1) adequate capacity to meet forecasted load plus a PRMR for the entire MISO footprint, and (2) a LCR designed to assess the adequacy of capacity physically located in each Local Resource Zone. The MISO has ten zones, as shown in Figure 1 below, which generally follow the lines of state boundaries, service territories, and geographic dividers, among other factors.

The purpose of solving for zonal LCR is to reflect the value and deliverability of capacity in different locations, a value that is measured by the auction clearing price. In a broader sense, the LCR is designed to ensure sufficient generation is sited in proximity to electric loads. This has been a particular concern for LSEs with load in import-constrained zones that rely on resources outside that zone, or for restructured jurisdictions, in particular, which may not otherwise have sufficient incentives to ensure adequate resources.

**Figure 1: Map of the MISO's Local Resource Zones<sup>7</sup>**



<sup>7</sup> Zone 5 consists of Ameren Missouri's service territory in Missouri. "AMMO" refers to Ameren Missouri and "CWLD" refers to the City of Columbia, Missouri's water and light department.

1           **Q.     How does the MISO determine LCRs for each zone?**

2           A.     The MISO establishes the LCR for each zone based on the formula: "LCR  
3     = Local Reliability Requirement – Zonal Import Ability – Controllable Exports." In this  
4     formula, the Local Reliability Requirement is the amount of UCAP megawatts required to  
5     yield a 0.1 day-per-year Loss of Load expectation ("LOLE"). This LOLE planning  
6     standard is an industry benchmark, based on forecast modeling, for electric system  
7     reliability planning, and a 0.1 LOLE represents a system that fails to meet load on only 1  
8     day in 10 years.

9           **Q.     What accreditation as a MISO capacity resource will the Projects**  
10    **receive?**

11          A.     The MISO Tariff states that new generation resources "*...will have a SAC*  
12    *based on its respective seasonal Resource Class-level UCAP...*"<sup>8</sup> This will vary by season.

13          The NGSC and the BESS Projects must be commercially operable by September  
14    1, 2028, per the allowed timeline for MISO replacement capacity, in order to utilize the  
15    Rush Island transmission interconnection without working through the MISO  
16    interconnection queue. The BESS Project is planned to reach commercial operation by  
17    April 1, 2028, but the NGSC will be targeting a September 1, 2028, date. Therefore, the  
18    first season for which the entirety of the Projects may be marketable in the MISO PRA is  
19    Fall 2028. As previously stated, this will be the first PRA that utilizes the DLOL capacity  
20    accreditation methodology.

21          The latest expectation for NGSC class-average DLOL accreditation for dual fuel  
22    combustion turbine units in that timeframe shows accreditation values of 87%, 84%, 79%,

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<sup>8</sup> <https://docs.misoenergy.org/miso12-legalcontent/TariffEffectiveVersion.pdf> Schedule 53A, VII. "SAC" is a generator's "Seasonal Accredited Capacity."



and 77%, respective of seasons (from Summer to Spring).<sup>9</sup> For BESS accreditation, MISO's 2024 Regional Resource Assessment,<sup>10</sup> projects 2030 DLOL seasonal accreditation values for four-hour batteries of 96.1%, 99.8%, 79.5%, and 97.3%, respective of seasons (from Summer – Spring).

**Figure 2: Forecasted MISO Capacity Accreditation**

| <b>BIG HOLLOW FORECASTED MISO CAPACITY ACCREDITATION</b> |              |              |              |              |
|----------------------------------------------------------|--------------|--------------|--------------|--------------|
|                                                          | SUMMER       | FALL         | WINTER       | SPRING       |
| Installed NGSC                                           | 673          | 697          | 798          | 697          |
| Installed BESS                                           | 400          | 400          | 400          | 400          |
|                                                          |              |              |              |              |
| NGSC Accred %                                            | 87.0%        | 84.0%        | 79.0%        | 77.0%        |
| BESS Accred %                                            | 96.1%        | 99.8%        | 79.5%        | 97.3%        |
|                                                          |              |              |              |              |
| NGSC DLOL Capacity                                       | 585.5        | 585.5        | 630.4        | 536.7        |
| BESS DLOL Capacity                                       | 384.4        | 399.2        | 318.0        | 389.2        |
| <b>Total DLOL Capacity</b>                               | <b>969.9</b> | <b>984.7</b> | <b>948.4</b> | <b>925.9</b> |

**Q. Based on the MISO's published class-average accreditations, does this align with the Company's IRP modeling underlying its recently submitted 2025 Preferred Resource Plan?**

**A.** While there is not exact uniformity, the Company's IRP modeling of NGSC and BESS accreditation aligns well with the MISO-published projections. All the accreditation values will be subject to revision prior to when both the NGSC and BESS

<sup>9</sup> <https://cdn.misoenergy.org/PY%2025-26%20Indicative%20DLOL%20Results657893.pdf> Page 3 table referencing Dual Fuel Oil/Gas.

<sup>10</sup> <https://cdn.misoenergy.org/20241106%20RASC%20Item%2010%202024%20RRA%20Update658159.pdf> Pg 25

1 will be commercially operable in 2028. However, the accreditation information provided  
2 above reflects the best available information.

3 **Q. Please describe Ameren Missouri's forecasted position for the next few**  
4 **MISO PRAs.**

5 A. Using loads for the 2025 Preferred Resource Plan's 2-gigawatt large load  
6 addition case, as shown in Figure 3, the Company forecasts its MISO capacity position to  
7 vary by season. Focusing on the next three Planning Years of 2026-27 through 2028-29,  
8 this forecast indicates the Company would be short when looking at Company-owned  
9 resources in every season beginning Winter 2026-27 and until the Big Hollow projects are  
10 commercially operable and marketable in the PRA.

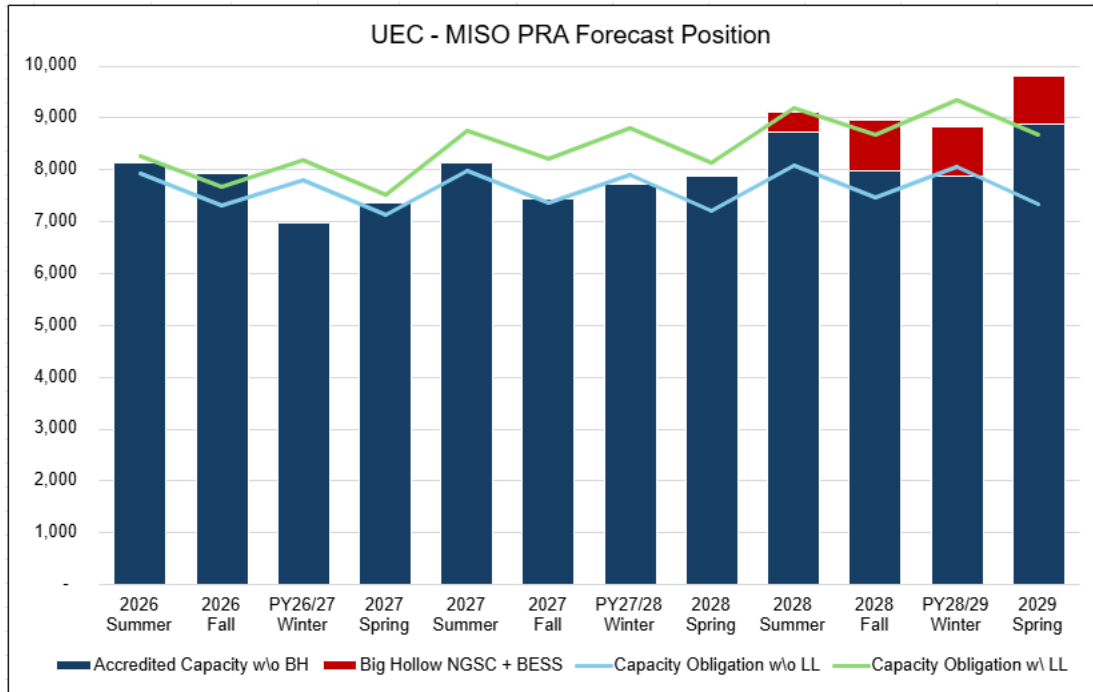
11 It is important to note that this forecast includes new generation projects that are  
12 currently in the development phase, such as the Castle Bluff combustion turbine facility,  
13 and the Vandalia, Bowling Green, plus Split Rail solar facilities, and some projects for  
14 which the Company has not yet filed a CCN application. It also includes a ramp-up  
15 assumption for new large loads (as defined by the Company's large load tariff case filed  
16 with the Commission on May 14 of this year<sup>11</sup>). This assumption is also consistent with  
17 the 2-gigawatt scenario included in the Company's 2025 Preferred Resource Plan filing,  
18 and includes incremental large load impacts of 300 MW in 2026, 700 MW in 2027, and  
19 1,000 MW in 2028.

20 The 2026 and 2027 forecasts do not include any capacity from the Big Hollow  
21 NGSC or BESS, as they will not be marketable at this time.

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<sup>11</sup> File No. ET-2025-0184.

**Figure 3: UEC Seasonal MISO PRA Forecast Through Spring 2029**



**Q. What does this forecast tell us about the need for the Projects?**

A. That one of the reasons the Big Hollow Projects are needed is to address a shortfall in accredited capacity that would otherwise exist. Specifically, prior to Big Hollow NGSC and BESS capacity, the Company is forecasting an average short PRA position of 686 MW per season, from Winter 2026-27 through Spring 2028. A small Summer 2028 shortfall of 87 MW still exists, due to only the Big Hollow BESS becoming marketable in that season. When the Big Hollow NGSC becomes marketable in Fall 2028, the seasonal position returns to a modest surplus.

**Q. How will the Projects contribute to PRA positions post-Spring 2028?**

A. As noted, starting in Fall 2028-2029 when both Projects are marketable, the shortfall will turn into a modest surplus. As shown in Figure 2, the average seasonal accreditation is 957.2 MW combined for the NGSC and BESS projects. This capacity addition nearly offsets the 1,000 MW large load ramp assumption in 2028, although that

1 large load assumption must be grossed up for MISO PRM and the estimated reliability  
2 procurements that now occur in the PRA as a function of the sloped demand curve. These  
3 adders bring the 1,000 MW load assumption up to 1,300 MW by Winter 2028-29. Mr.  
4 Michels' Direct Testimony discusses the pace at which customer growth will consume this  
5 additional capacity in the timeframe beyond the 2028-29 planning year.

6 **Q. Does the Company anticipate that MISO accreditation values will**  
7 **fluctuate year-to-year?**

8 A. Yes, the Company expects the potential for volatile accreditation to persist  
9 under the new DLOL approach. With DLOL the Intermediate Seasonal Accredited  
10 Capacity ("ISAC") is calculated by weighing Tier 1 hours at 20% and Tier 2 hours at  
11 80%<sup>12</sup>. The SAC for each unit is calculated by distributing the class-level value from the  
12 DLOL model among the units, proportional to their class-level ISAC value, in which the  
13 sum for all units equals the class-level value. Lastly, each unit's percentage credit is  
14 calculated by dividing the unit's SAC by its ICAP value.

15 **Q. What does this potential for volatile year-over-year MISO**  
16 **accreditation changes suggest in terms of whether the MISO's accreditation methods**  
17 **should be used for the Company's resource planning?**

18 A. As discussed by Company witness Michels in his Direct Testimony, while  
19 the Company takes steps to align IRP capacity modeling with MISO accreditation  
20 processes, exact uniformity in these models is not appropriate. This is because the MISO  
21 SAC and DLOL processes are focused on producing resource accreditation for a specific

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<sup>12</sup> MISO factors in Tier 1 and Tier 2 Resource Adequacy (RA) hours for calculating seasonal accreditation. Tier 1 determines each resource's real-time offered availability during normal operating condition hours, and Tier 2 determines each resource's real-time offered availability during hours with the most difficult operating conditions, including declared maximum generation events.

1 three-month period, largely based on historical performance. The focus of the Company's  
2 IRP is to demonstrate consistent planning levels that can be used to determine resource  
3 investment across a 20-year horizon. However, a 20-year view of dispatchable generation  
4 should not be subject to the same potential volatility that is seen in the MISO processes  
5 because doing so could distort the need picture, e.g., suggest a need where one does not  
6 actually exist, or vice-versa. The MISO UCAP methodology generally produced the least  
7 volatile accreditation results. Utilizing an approach better resembling the UCAP  
8 accreditation process for IRP modeling allows for simple adjustments to normalize  
9 abnormal historical events. Currently, the best reflection of the UCAP accreditation  
10 process by season is represented by MISO's 2023-2024 PRA values, which minimize the  
11 effect of hourly historical performance.

12 **Q. You've addressed the Big Hollow Projects' contribution to meeting the**  
13 **MISO load/PRM requirements. Do the Big Hollow Projects satisfy other needs?**

14 A. Yes. In the MISO's 2024-25 PRA, Zone 5 (Missouri) witnessed price  
15 separation due to failure to satisfy its LCR. With the Projects being located at the Rush  
16 Island site in Missouri, the Projects will contribute to satisfying the LCR for the zone.

17 **Q. What do the results of MISO's 2025-26 PRA tell us about the state of**  
18 **resource adequacy in MISO?**

19 A. PRA results for the 2025-26 planning year demonstrated adequate resources  
20 to maintain reliability across all seasons and zones. However, a reduced capacity surplus  
21 driven by capacity additions not keeping pace with generation retirements and reduced  
22 accreditations was reflected in a higher summer price signal, i.e., a \$666.50 MW-Day  
23 clearing price. Essentially, every available capacity megawatt in the Central and North

1 regions of MISO was utilized to satisfy the PRMR for summer. When comparing offered  
2 versus cleared supply across the entirety of MISO, this auction witnessed a reduction of  
3 uncleared capacity in every season<sup>13</sup> compared to the two prior PRA results. This  
4 demonstrates that nearly all MISO capacity resources are required to maintain a reliable  
5 system, and reinforces the need to increase capacity, as MISO demand is expected to grow  
6 in future planning years.

7 **Q. Is this PRA picture of resource adequacy risk a good reflection of the**  
8 **Company's capacity position for the next several planning years?**

9 A. Yes, as shown in Figure 3, the Company pivots from long to short  
10 depending upon season, although the proposed Projects definitely help address these  
11 concerns. Since 2021, the Company has added 700 megawatts of wind generation, 500+  
12 megawatts of new solar generation, has initiated construction on an additional 400  
13 megawatts of new solar to go into service by 2026, and has initiated construction on the  
14 approximately 800-megawatt Castle Bluff natural gas simple cycle project. Although these  
15 totals are for installed capacity and not MISO-accredited capacity values, these projects go  
16 a long way towards replacing the approximate 2 gigawatts of dispatchable coal generation  
17 (Meramec and Rush Island) capacity that was retired in recent years.

18 **Q. Please summarize your opinion regarding the Projects' role in**  
19 **satisfying the Company's obligations in the MISO PRA.**

20 A. The Projects mitigate Ameren Missouri's exposure to the PRA, will help  
21 satisfy the Zone 5 LCR requirements, and will enable the Company to reliably serve  
22 customer load growth.

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<sup>13</sup> [https://cdn.misoenergy.org/2025%20PRA%20Results%20Posting%2020250529\\_Corrections694160.pdf](https://cdn.misoenergy.org/2025%20PRA%20Results%20Posting%2020250529_Corrections694160.pdf)  
Pgs 22-25.

1           **III.    NEW MISSOURI UTILITY LEGISLATIVE REQUIREMENTS**

2           **Q.    Please explain the relevant provision of the recently signed Missouri**  
3 **legislation regarding utilities, referred to here as Senate Bill 4.**

4           A.    On April 9th, 2025, Missouri Governor Kehoe signed Senate Bill 4 ("SB  
5 4") into law, creating certain obligations for electrical corporations in relation to their  
6 resource planning activities, among several other features that modify and create new  
7 provisions relating to utilities. Specifically, the legislation states "*(T)he electrical*  
8 *corporation shall submit such documentation, which shall include its actual capacity*  
9 *position for the upcoming planning year and a reasonable forecast of its capacity position*  
10 *for the three subsequent planning years consistent with resource adequacy requirements*  
11 *of the appropriate regional transmission organization...*".<sup>14</sup> This legislation will become  
12 effective August 28, 2025. While this provision may still be the subject of a rulemaking at  
13 the Commission, the Company anticipates making an annual filing, beginning in 2026, to  
14 provide the requested information.

15           **Q.    Will the Projects be included in the capacity position filed with the**  
16 **Commission in satisfaction of the SB 4 requirements?**

17           A.    If the Commission approves the CCN's for the Projects, the Company will  
18 include the respective MISO capacity accreditation contributions in its capacity position  
19 starting when that capacity is marketable in the MISO market, which we expect to be as  
20 early as Fall 2028-29. Thus, the Projects will assist the Company in making the  
21 demonstration required by SB 4 without reliance on market or bilateral capacity purchases.

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<sup>14</sup> <https://legiscan.com/MO/text/SB4/id/3187021> Page 68, lines 6-12

1                                    **IV.     GAS SUPPLY AND MISO UTILIZATION**

2                    **Q.     Has the Company prepared reliable natural gas arrangements to**  
3 **support this operation?**

4                    A.     As it did for the Castle Bluff NGSC plant, for which the Commission  
5 approved a CCN last year and which will be commercial in October 2027, the NGSC will  
6 connect directly to an interstate natural gas pipeline; Energy Transfer's Mississippi River  
7 Transmission ("MRT") pipeline. The Company will utilize a combination of Firm  
8 Transportation ("FT") and Interruptible Transportation ("IT") contracts with MRT. In  
9 addition, the Company also intends to utilize some third-party capacity releases and  
10 pipeline storage services to deliver natural gas to the Big Hollow NGSC. Since the Big  
11 Hollow NGSC should be utilized to the greatest extent during the summer months, this  
12 aligns with the planned reliance on IT, as IT is available to a greater degree in non-winter  
13 months.

14                    It is expected that the Company's use of the FT will be curtailed during extreme  
15 cold weather events, as it is typical for interstate pipelines to issue System Protection  
16 Warnings or Operational Flow Orders due to the high volumes of gas being delivered  
17 through the pipelines. With such an order in effect, the pipeline requirement to flow gas  
18 ratably across the day typically prohibits CTG operation, since the Company's CTGs do  
19 not receive full 24-hour commitments from the MISO.

20                    To keep the NGSC available for operation when the pipelines have issued such an  
21 order, the NGSC will have on-site storage that will hold sufficient fuel-oil for 72-hour  
22 operation of turbines during winter conditions.



1           **Q.     How was the volume of fuel-oil storage determined?**

2           A.     A. The 72-hour storage capability was largely determined by a review of  
3 historic runtimes of existing fuel-oil generation during winter months. In the months  
4 containing winter storms Uri and Elliott, the maximum hours of runtime for any of the  
5 Company's existing fuel-oil generators was narrowly over 50 hours total. Ameren Missouri  
6 concluded that 72 hours of fuel-oil capability would satisfy the energy demand from these  
7 generators during a severe winter storm. Barring back-to-back extreme winter storm  
8 events, the Company would have time to replenish some, or all, of the depleted fuel-oil  
9 inventory before another winter storm arrived.

10          **Q.     What is the Company's expectation for the BESS operation in the**  
11 **MISO Energy and Ancillary Services market?**

12          A.     BESS is a dispatchable resource, which is registered as an Energy Storage  
13 Resource ("ESR") in the market. As explained in MISO BPM-002-r25,<sup>15</sup> this registration  
14 requires the Market Participant to manage the BESS commitments and operation in the  
15 Day-Ahead and Real-Time markets. This includes selecting the Commitment Status of  
16 'Continuous' which enables the ESR to be committed for a combination of energy and  
17 operating reserves.

18          Based on these operating parameters, BESS operations can both meet load needs  
19 in times of high peak demand and arbitrage energy prices, which is a strategy of charging  
20 batteries when electricity prices are low and discharging them when prices are high, and to  
21 financially capitalize on the price fluctuations. With the rapid expansion of wind and solar  
22 generation across the MISO, the Company anticipates ample opportunity to charge the

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<sup>15</sup> <https://cdn.misoenergy.org/BPM-002%20Energy%20and%20Operating%20Reserve%20Markets49546.zip> Section 4.2.6.3.3

1 BESS and be available for discharge during peak events. Peak events may take the form  
2 of high system load, or large ramps due to changes in MISO interchange schedules, or  
3 general system variations. Having a BESS project that was fully charged at low market  
4 prices allows the Company to meet peak demand conditions and do so in a manner that is  
5 likely to result in favorable pricing and revenues during those discharge events.

6 Customer rates will benefit from this arbitrage both as base rates are reset and on  
7 an ongoing basis via the Company's fuel adjustment clause. This is because prices tend to  
8 be high during times of the greatest system needs, allowing BESS to be dispatched during  
9 those times using the lower cost energy that charged them.

10 **Q. How does the expectation of BESS operation compare to the current**  
11 **operation of Taum Sauk?**

12 A. While both Taum Sauk pump-storage and the BESS will arbitrage prices in  
13 the market, the resources have some key differences. Taum Sauk is registered in the market  
14 as "Generation Resource," while the BESS will be registered as an ESR. Generation  
15 Resources offer their operational parameters into the Day-Ahead and Real-Time markets,  
16 and typically allow the MISO to optimize their utilization, i.e., decide which are the best  
17 hours to operate. As discussed, the ESR registration will require the Company to manage  
18 the commitments status for charge, discharge, and overall operation of the BESS. While  
19 the operational strategy may evolve with market conditions, the BESS may be able to pivot  
20 between charge and discharge quicker than Taum Sauk's ability to change the directional  
21 flow of water. The BESS may also possess more flexible attributes, in terms of number of  
22 starts, ramp timing, ability to discharge across of broader operating range, than what we  
23 experience with Taum Sauk. Increased operational flexibility generally translates into

1 more opportunities to arbitrage the market. One example of this BESS flexibility is the  
2 ability to provide offline supplemental services throughout more of the operating day, when  
3 compared to Taum Sauk. Taum Sauk, which consists of two ~200 MW units, is only  
4 capable of providing offline supplemental from a single unit at a time, and only when the  
5 unit is offline, i.e., not pumping. In contrast, the BESS should be able to provide offline  
6 supplemental for all 400 MWs and be able to provide the service even when the BESS is  
7 charging – since the BESS will be able to stop that action within the required response  
8 time.

## 9 V. CONCLUSION

10 **Q. In summary, what is your recommendation to the Commission in this**  
11 **case?**

12 **A.** I recommend the Commission approve a CCN for the Big Hollow projects  
13 because they represent an expeditious approach to developing MISO accredited capacity  
14 that can meet the Company's growing load obligations.

15 **Q. Does this conclude your Direct Testimony?**

16 **A.** Yes, it does.

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

My name is Andrew M. Meyer, 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.

Andrew Meyer

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