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MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. EA-2024-0237

DIRECT TESTIMONY

OF

ANDREW MEYER

ON

BEHALF OF

UNION ELECTRIC COMPANY,

D/B/A AMEREN MISSOURI

**St. Louis, Missouri
June 2024**

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DIRECT TESTIMONY

OF

ANDREW MEYER

FILE NO. EA-2024-0237

1 **I. INTRODUCTION**

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

3 A. Andrew 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, NERC¹ compliance
17 oversight, and operational responsibility for the renewable generation fleet.

¹ North American Electric Reliability Corporation.

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

3 A. I earned Bachelor of Science degrees in Business Administration
4 (Management Emphasis) and Agricultural Economics from the University of Missouri –
5 Columbia. I was employed by Continental Grain Co. prior to joining Ameren. In 1999, I
6 joined Ameren's independent marketing affiliate, Ameren Energy, Inc. Ameren Missouri
7 assumed this corporate function in 2004. I have worked in several different capacities on
8 the trading floor and in RTO stakeholder relations. My experience also includes a steady
9 progression of leadership responsibilities for related activities involving commodity
10 trading and procurement, as well as wholesale market operations.

11 **II. PURPOSE OF TESTIMONY AND SUMMARY**

12 **Q. What is the purpose of your direct testimony in this proceeding?**

13 A. The purpose of my direct testimony is to support the Company's application
14 for a Certificate of Convenience and Necessity ("CCN") for the Castle Bluff Energy Center
15 (the "Project"), which is comprised of a grouping of simple cycle turbines located at the
16 former Meramec Energy Center location. As discussed by Company witness Matt Michels,
17 the primary driver of the need for the Project is to ensure reliability in extreme weather
18 conditions, especially in the winter. Given those needs, I will discuss why the Project will
19 be capable of operation using both natural gas and fuel oil. I will also discuss the year-
20 round benefits of the Project, including how it will be utilized in both the MISO Planning
21 Resource Auctions ("PRA") and in the MISO Energy & Ancillary Services Market.
22 Finally, I will discuss the electric interconnection and fuel supply benefits of siting the
23 Project at the former Meramec coal plant site.

1 **Q. Please summarize the key conclusions in your testimony.**

2 A. My key conclusions are as follows:

- 3 • The Project is needed to ensure reliability and resiliency in the energy supply
4 during extreme weather events, primarily during the winter.
- 5 • The Project will qualify for MISO capacity resource accreditation and thus
6 count towards the Planning Reserve Margin Requirement ("PRMR") (i.e., the
7 peak load forecast in MW under normalized conditions plus a reserve margin
8 in MW) for future seasonal PRAs.
- 9 • Another ancillary benefit of the Project is that due to its physical location at the
10 former Meramec Energy Center site, it will help to satisfy the Local Clearing
11 Requirement ("LCR") for Zone 5 (Eastern Missouri) in future MISO PRAs.
- 12 • Construction of the Project at the former Meramec Energy Center site will
13 provide benefits in terms of electric interconnection and fuel supply.

14 **III. RELIABILITY AND RESILIENCY OF ENERGY SUPPLY**

15 **Q. You have testified that the Project will enhance Ameren Missouri's**
16 **ability to provide reliable energy during extreme weather events, especially those**
17 **occurring in winter. Why is this a concern?**

18 A. During winter storms Uri in 2021 and Elliott in 2022, the Company
19 provided reliable service. However, there was significant reliance on the MISO market for
20 purchased energy to serve the load in the Company's service territory. Throughout winter
21 storm Uri, which spanned February 13-17, 2021, the Company was a net buyer in the MISO
22 Day-Ahead Market of an average 945 megawatts per hour. This reliance on the market
23 during Uri was largely the result of a generator rewind forced outage at the Callaway

1 Energy Center. The largest hourly amount purchased in the Day-Ahead Market was 1,497
2 megawatts in Hour Ending 5 of February 16, 2021.

3 **Q. Why focus on Day-ahead market purchases?**

4 A. MISO operates a two-settlement market construct, i.e., both a Day-Ahead
5 and Real-Time Market. The majority of the Company's and its customers financial
6 exposure is typically addressed in the Day-Ahead Market. The Company procures the
7 energy to meet the forecasted load in the Day-Ahead Market, and similarly, the majority
8 of the generation commitments by MISO occur via the Day-Ahead Market processes. The
9 Company may still incur Real-Time Market financial exposures when either load or
10 generation deviate from the Day-Ahead Market schedules.

11 **Q. Did the Company also rely on the market during winter storm Elliott?**

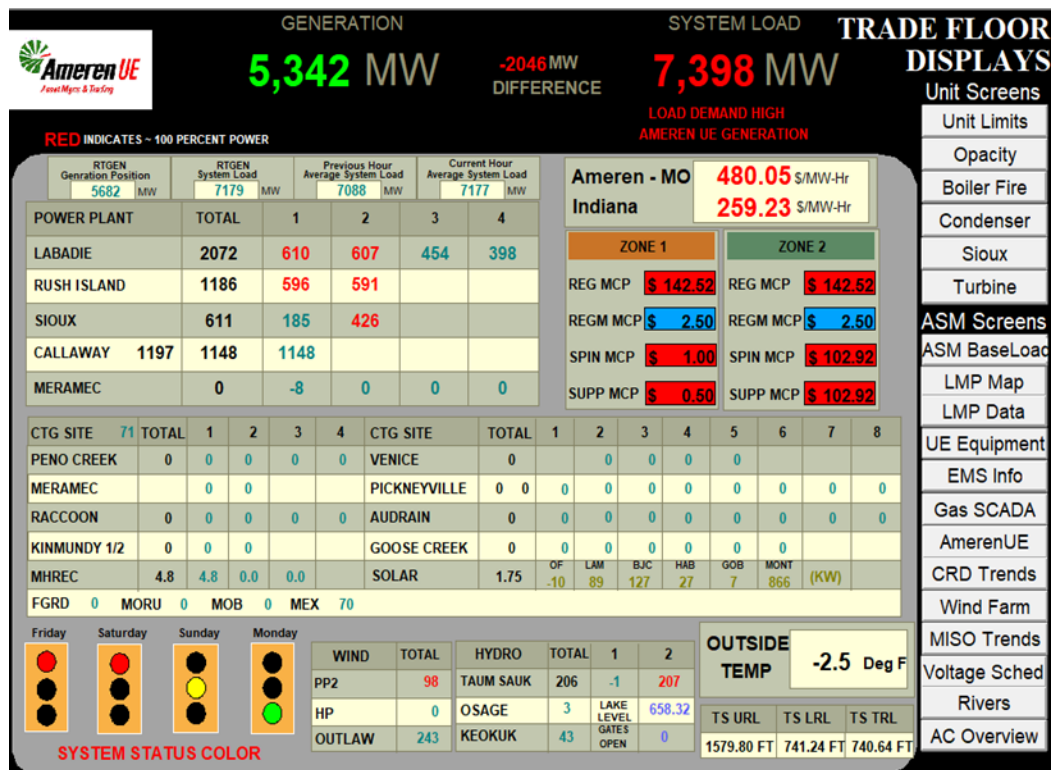
12 A. Throughout winter storm Elliott, which spanned December 21-26, 2022, the
13 Company was a net buyer in the MISO Day-Ahead Market of an average of 258 megawatts
14 per hour. These market purchases were the result of widespread CTG unavailability across
15 the Company's fleet and the untimely outages of baseload coal units during this storm.

16 **Q. The Project's simple cycle capacity is greater than the average 258
17 megawatt buying position during winter storm Elliott. Were there any moments
18 during the storm when the Company was importing more than this volume?**

19 A. Yes, the following instantaneous graphic, Figure 2, demonstrates the
20 severity of the Company's reliance on MISO market purchases during winter storm Elliott.
21 It compares the Company's generation total to the Control Area load, which is inclusive of
22 line losses and some Missouri municipal and electric cooperative loads. The
23 'GENERATION' data point shows 5,342 megawatts, while the 'SYSTEM LOAD' data

1 point shows 7,398 megawatts, for a difference of 2,046 megawatts that were being
 2 imported, or bought, from the market; that is, we were exposed to the market, assuming
 3 power was available, for nearly 30% of our needs.² This instance of extreme market
 4 dependence was recorded on the morning of December 23, 2022, and was an impetus for
 5 the Company's initiative to identify approximately 2,000 megawatts of generation available
 6 to serve winter peak demands. The Company explicitly evaluated its specific needs under
 7 extreme weather through its Integrated Resource Plan ("IRP") analysis, as described in Mr.
 8 Michels' direct testimony.

9 **Figure 2: Instantaneous Overview of Ameren Missouri Control Area**



² The changing MISO generation fleet, which is shifting from dispatchable generation to greater percentages of intermittent resources, calls into question the Company's ability to rely on the market for this volume of purchases in the future.

1 **Q. Regarding these extreme weather events, wasn't it the case that several**
2 **of the Company's existing simple cycle energy centers experienced forced outages**
3 **during extreme winter weather events due to fuel limitations?**

4 A. Yes. The Company operates simple cycle gas turbines across Missouri and
5 Illinois that are supplied fuel from four interstate pipelines: Panhandle, Mississippi River
6 Transmission ("MRT"), Natural Gas Pipeline Co., and Trunkline. During extreme cold
7 weather events, it is typical for these interstate pipelines to issue System Protection
8 Warnings ("SPWs") or Operational Flow Orders ("OFOs") due to the high volumes of gas
9 being delivered through the pipelines. During extreme cold weather events when these
10 declarations are issued, the net effect is that pipelines are required to take certain actions:
11 (1) curtail all schedules utilizing Interruptible Transportation, and (2) require all shippers
12 to adhere to tariff provisions requiring ratable flows. It is the ratability provision that
13 generally requires the Company's simple cycle fleet to be made unavailable for operation.
14 The Company's Firm Transportation contracts could be utilized to make a small number of
15 CTGs available for ratable, 24-hour operation. However, even on critical winter days,
16 MISO does not commit our CTG fleet for full 24-hour operation. Generally, MISO has
17 preferred to commit these generators for winter morning and evening peaks. Since this gas
18 flow would conflict with the pipeline's ratability requirements, the generators are
19 unavailable (which, under NERC reporting guidelines, counts as a "forced outage").

20 These ratability provisions, combined with MISO's unit commitment trends, are
21 also the reason that procuring Firm Transportation ("FT") contracts for the entire capacity
22 of these energy centers is not economically practical, assuming these pipelines have, or
23 could develop, enough FT capacity to supply the Company's simple cycle generation fleet.

1 Since the ratability provisions of the pipeline tariffs do not align with MISO's unit
2 commitment practices, the Company would not be allowed to fully utilize this additional
3 FT capacity in the winter.

4 **Q. How then will this Project, which relies on natural gas as a fuel source,**
5 **help address Ameren Missouri's concern in providing reliable energy during extreme**
6 **weather events?**

7 A. Because peak winter day natural gas supply issues may be present on the
8 pipeline, the Project is being designed with dual-fuel capability to run on both natural gas
9 and fuel oil. Fuel oil tanks will be installed on-site to ensure that the units are available
10 during extreme cold weather events. When pipelines declare SPWs or OFOs, the Project
11 will be able to pivot to fuel-oil operation and generate reliable energy during winter peak
12 loads. The Project will have on-site storage that will hold sufficient fuel-oil for the 72-
13 hour operation of the turbines.

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

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

1 **Q. With an 816-megawatt winter rating, the Project capacity does not**
2 **entirely cover the short energy position experienced during these storms. Are other**
3 **winter resources being planned?**

4 A. As provided for by the Company's 2023 IRP Preferred Resource Plan, the
5 Company has initiated several dispatchable generation projects in addition to the Project
6 to address the approximate 2,000-megawatt instantaneous winter short position identified
7 in Figure 2.³ First, a project was commissioned to restore the dual-fuel capability at Peno
8 Creek Energy Center. This was intended to address the routine unavailability of these units
9 due to previously discussed pipeline restrictions during cold weather events. With four
10 units each rated at 51 megawatts, this fuel-oil firing capability restored 204 megawatts of
11 energy production that would not currently be operational during extreme weather. This
12 project is complete, and the units have already been committed by MISO to operate on fuel
13 oil in January 2024.

14 Similarly, a project was commissioned to restore the dual-fuel capability at
15 Kinmundy Energy Center. With two units each rated at 125 megawatts, this fuel-oil firing
16 capability restored 250 megawatts of energy production that likely would not currently be
17 operational during extreme weather. This project is also complete.

18 A third project has been commissioned to develop dual-fuel capability at Audrain
19 Energy Center. With eight units each rated at 90 megawatts during the winter, this fuel-oil
20 firing capability will add 720 megawatts of energy production that currently would not be

³ As mentioned previously, Mr. Michels addresses need from a planning perspective in his direct testimony, reflecting MISO accreditation values for resources, expected peak demands, and MISO required planning reserve margins.

1 operating during extreme weather. The anticipated completion date of this project is the
2 fourth quarter of 2026.

3 The sum of these three dual-fuel projects is 1,174 megawatts, which historically
4 were unavailable due to pipeline restrictions during cold weather events, now will be
5 available to serve load. Lastly, the Project for which a CCN is requested in this case will
6 add 816 megawatts of dual-fueled simple cycle generation during the winter, bringing the
7 winter total to 1,990 megawatts of restored availability to existing resources and new
8 dispatchable winter generation, which is the approximate amount of generation necessary
9 to mitigate the winter short position that we experienced during winter storm Elliot, as
10 shown in Figure 2.⁴

11 **Q. Is construction of the Castle Bluff Project necessary to allow Ameren**
12 **Missouri to meet its obligation to provide reliable energy to its customers in extreme**
13 **weather events?**

14 A. Most certainly. The construction of these dual-fuel simple cycle generation
15 units will allow the Company to reliably serve its customers during extreme weather
16 events, especially in the winter.

17 **IV. THE ROLE OF THE PROJECT IN**
18 **THE MISO'S RESOURCE ADEQUACY CONSTRUCT**

19 **Q. Please provide a brief explanation of the MISO resource adequacy**
20 **construct?**

21 A. In March 2008, the Federal Energy Regulatory Commission ("FERC")
22 approved MISO's initial voluntary capacity auction "to allow LSEs (Load Serving Entities)

⁴ Note that the referenced capacity values reflect the full rated output of the specified resources. The capacity position analysis in Mr. Michels' direct testimony reflects accredited capacity and consideration of MISO planning reserve margins consistent with the Company's IRP planning.

1 with insufficient capacity to satisfy the resource adequacy requirements with planning
2 resources from market participants that have excess planning resources."⁵ This construct
3 quickly transitioned into the MISO capacity market framework that is still largely in effect
4 today, as FERC approved MISO's filing for a mandatory, annual construct on October 1,
5 2012, with the intent of "achieving system reliability in operating and planning horizons at
6 the lowest costs, *as well as to complement state resource adequacy planning processes.*"⁶
7 This construct established a PRA in advance of a single planning year, removed
8 participation barriers, and created local capacity market signals.

9 A key function of both of these constructs was financial; that is, by ensuring that
10 generators were compensated for their reliability contributions, an incentive is created for
11 the LSEs to procure and/or build adequate capacity. The LSEs are charged with the
12 financial obligations of demonstrating resource adequacy compliance. Generators and
13 other planning resources, whether owned by the LSEs or bilaterally purchased capacity,
14 are paid the Auction Clearing Price ("ACP"). The financial consequences of the PRA are
15 what create an incentive for LSEs to build or obtain sufficient local resources to ensure
16 reliability.

17 In August 2022, FERC approved significant changes to the MISO capacity
18 construct, deconstructing the annual approach into four seasonal planning windows to
19 identify the unique reliability needs of each season and align resource availability with
20 seasonal needs. Each season has a unique Planning Reserve Margin ("PRM")⁷ and unique
21 Zonal Import & Export Limits. Additionally, the MISO accreditation rules for Capacity

⁵ Order on Resource Adequacy Proposal, ER11-4080-000, 139 FERC ¶ 6199, 62365 (June 11, 2012).

⁶ MISO, Filing to Enhance RAR By Incorporating Locational Capacity Market Mechanisms; ER11-4081-000 at ¶Pg 3 (filed July 20, 2011).

⁷ The PRM is the percent of capacity above forecasted load needed to show resource adequacy.

1 Resources changed from an annual Unforced Capacity ("UCAP") method to Seasonal
2 Accredited Capacity ("SAC") method for thermal resources. The new seasonal construct,
3 using accreditation values announced by MISO in late 2022, did not begin until its use in
4 the PRA for the 2023-24 Planning Year.⁸

5 In March 2024, MISO again filed with FERC to make a significant change to the
6 accreditation methodology for both thermal and renewable resources, introducing the
7 Direct Loss of Load ("DLOL") methodology. MISO claims there is a load and resource
8 alignment benefit of using the same methodology for both accrediting resources and
9 producing the appropriate reserve margin for the load. This change would also unify the
10 accreditation methodology for thermal and renewable resources. MISO has asked for an
11 effective date of September 1, 2024, with the first auction utilizing this methodology
12 proposed for Planning Year 2028-29.

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

15 A. The MISO PRA solves for two resource adequacy measures: (1) adequate
16 capacity to meet forecasted load plus a PRMR for the entire footprint; and (2) A Local
17 Clearing Requirement ("LCR"), designed to assess the adequacy of capacity physically
18 located in each Local Resource Zone. MISO has 10 zones, as shown in Figure 1, which
19 generally follow the lines of state boundaries, service territories, and geographic dividers,
20 among other factors.

21 The purpose of solving for zonal LCR is to reflect the value and deliverability of
22 capacity in different locations, a value that is measured by the auction clearing price. In a

⁸The MISO Planning Years are from June 1 to May 31 of the following year.

1 broader sense, the LCR is designed to ensure sufficient generation is sited in proximity to
2 electric loads. This has been a particular concern for LSEs with load in import-constrained
3 zones that rely on resources outside that zone, or for restructured jurisdictions, in particular,
4 which may not otherwise have sufficient incentives to ensure adequate resources.

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

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

12 **Figure 1: Map of the MISO's Local Resource Zones**



1 **Q. As discussed in Mr. Michels' testimony, the primary need for the Castle**
2 **Bluff project is to address extreme winter weather events. But will it also be utilized**
3 **in the MISO PRA?**

4 A. Yes, the Project will be a capacity resource that will be utilized in future
5 PRAs. The Project will consist of four units, with a winter nameplate capacity rating of
6 204 megawatts each, for a total of 816 megawatts. Applying a winter class average
7 unforced capacity percentage of 10.53%, produced by MISO for the 2024-25 PRA,⁹ the
8 Project would have an accredited capacity of 730 megawatts that would count toward the
9 PRMR.¹⁰

10 **Q. The MISO PRA for 2024-25 resulted in Zone 5 pricing separating from**
11 **the rest of the MISO zones, with noticeably higher clearing prices for Fall 2024 and**
12 **Spring 2025. Will the Project help to solve the issues causing Zone 5 prices to spike?**

13 A. Yes, with the Project being located at the site of the former Meramec Energy
14 Center, it will physically reside in Zone 5. As such, the Project will contribute to satisfying
15 the LCR for the zone.

16 **Q. Why did Zone 5 prices separate to the high side in the 2024-25 PRA?**

17 A. In the 2024-25 PRA, Zone 5 failed to satisfy its LCR in the Fall and Spring,
18 missing the requirement by 872.3 and 196.4 Zonal Resource Credits ("ZRCs"),
19 respectively. In similar fashion to how Castle Bluff will help the Company satisfy its full
20 PRMR in the future, an ancillary benefit of the Project will be its significant contribution
21 to allowing Zone 5 to meet its LCR requirements.

⁹ <https://cdn.misoenergy.org/LOLE%20Study%20Report%20PY%202024-2025631112.pdf>

¹⁰ As Mr. Michels explains in his direct testimony, the Company has used values from MISO's 2023-2024 PRA as the basis for its IRP planning analysis and the analysis presented in his direct testimony.

1 **Q. You've made several references to the MISO capacity resource**
2 **accreditation process. How does MISO accredit resources for PRA participation?**

3 A. Prior to FERC's recent approval of the seasonal PRA construct and SAC,
4 MISO utilized a three-year historical view of UCAP to determine accreditation. The
5 UCAP accreditation method was based on annual performance. MISO would utilize
6 historic performance data for forced outages to convert the installed nameplate capacity of
7 a resource to UCAP to reflect a resource's distinct operating characteristics and expected
8 availability, including deliverability to load, during the coincident peak period.

9 With the introduction of SAC methodology for thermal units, MISO still utilizes
10 three years of operational data, respective of seasons, for calculating accreditation.
11 However, MISO also factors in Tier 1 and Tier 2 Resource Adequacy (RA) hours for
12 calculating seasonal accreditation. Tier 1 determines each resource's real-time offered
13 availability during normal operating condition hours, and Tier 2 determines each resource's
14 real-time offered availability during hours with the most difficult operating conditions,
15 including declared maximum generation events. Tier 2 is more heavily weighted so that
16 most of a resource's accreditation will be based on availability during times of reliability
17 need. Beginning with the 2025-26 PRA, the Tier 2 hours will account for an 80%
18 weighting in the accreditation of thermal resources.

19 **Q. Does the SAC methodology lead to volatile accreditation results?**

20 A. Yes, the process has already yielded volatile year-over-year accreditation
21 results for some of the Company's resources, including the Callaway Energy Center. With
22 the MISO methodology heavily weighted on availability during difficult operating
23 conditions, it is possible for a resource to have high average seasonal availability; but due

1 to an untimely forced outage during an RA hour, a resource could lose significant capacity
2 accreditation value due to the Tier 2 weighting process. This hypothetical accreditation
3 impact would last for three PRAs.

4 **Q. Does the MISO's Direct LOL ("DLOL") proposal also utilize this RA**
5 **weighted approach?**

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

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

17 A. As discussed by Company witness Michels in his direct testimony, while
18 the Company takes steps to align IRP capacity modeling with MISO accreditation
19 processes, exact uniformity in these models is not appropriate. This is because the MISO
20 SAC and DLOL processes are focused on producing resource accreditation for a specific
21 three-month period. The focus of the Company's IRP is to demonstrate consistent planning
22 levels that can be used to determine resource investment across a 20-year horizon.
23 However, a 20-year view of dispatchable generation accreditation should not be subject to

1 the same potential volatility that is seen in the MISO processes because doing so could
2 distort the need picture, e.g., suggest a need where one does not actually exist, or vice-
3 versa. The MISO UCAP methodology generally produced the least volatile accreditation
4 results. And utilizing the UCAP accreditation process for IRP modeling allows for simple
5 adjustments to normalize abnormal historical events.

6 **Q. Please summarize your opinion regarding the Project's role meeting**
7 **Company needs relating to the MISO PRA.**

8 A. The Project mitigates Ameren Missouri's exposure to the MISO PRA and
9 will help cure the Zone 5 price separation.

10 **V. ADVANTAGES TO USING MERAMEC ENERGY CENTER SITE**

11 **Q. You have also testified that construction of the Project at the former**
12 **Meramec Energy Center site will provide benefits in terms of electric interconnection**
13 **and fuel supply. What are those benefits?**

14 A. First, construction of the Project at the former Meramec Energy Center site
15 allows Ameren Missouri to utilize the existing interconnection rights of the Meramec
16 Energy Center steam units in the process MISO refers to as Generating Facility
17 Replacement in Attachment X Generator Interconnection Procedures ("GIP") of the MISO
18 Tariff. This procedure allows for replacement of an existing generation facility with one
19 or more new generating units at the same electrical Point of Interconnection as those being
20 decommissioned and electrically disconnected. Utilization of the existing Interconnection
21 rights is extremely beneficial to the Project, as it allows for MISO review and approval
22 outside of the annual MISO Generator Interconnection Definitive Planning Study, which

1 has suffered in recent years from delays due to numerous new interconnection requests,
2 overwhelming the process.

3 **Q. How is this replacement approach under the MISO process possible if**
4 **the Meramec steam units ceased operation on December 31, 2022?**

5 A. When the Meramec units ceased operation, they entered a 36-month
6 suspension status with MISO. The Company had until the end of the 24th month of this
7 suspension (December 2024) to file the Attachment X generator replacement application
8 with MISO to utilize the existing interconnection rights. However, the Company has
9 completed this action of submitting the Attachment X application on April 12, 2024. If the
10 Company had not filed a generator replacement application, the Company would have lost
11 the Meramec Interconnection rights at the end of the 36-month Attachment Y suspension
12 window.

13 **Q. Does MISO study the generator replacement Interconnection request**
14 **before approving it?**

15 A. Yes, and the study process generally takes a year. By the end of the 36-
16 month suspension window of the Meramec steam units, or possibly sooner, considering the
17 application has already been submitted, the Company will have a new Generator
18 Interconnection Agreement in hand for the Project. The Project's 816-megawatt capacity
19 will fit within the Interconnection rights of the Meramec steam units, and the Project will
20 have the same point of interconnection as the Meramec steam units, which are two critical
21 components of receiving approval.

1 **Q. How long will the Company have to complete construction of the**
2 **Project?**

3 A. The MISO generator replacement process will allow construction timing
4 flexibility that should align well with the Project's currently estimated commercial
5 operation target of October 31, 2027.

6 **Q. Are there other benefits associated with the decision to site the Castle**
7 **Bluff generation at the former Meramec Energy Center?**

8 A. Yes. Other benefits associated with use of the former Meramec site include,
9 but are not limited to, the netting of emissions from the previous air permits, land control,
10 and proximity of transmission connection. These aspects are all discussed more thoroughly
11 in Mr. Stumpf's testimony.

12 **Q. Once constructed, will the Project possess fuel arrangements that allow**
13 **for reliable operation?**

14 A. Yes. The Project will connect directly to an interstate natural gas pipeline;
15 Energy Transfer's MRT pipeline. The MRT pipeline supplies St. Louis, Missouri, with gas
16 supplies from east Texas, Oklahoma, and Louisiana, including Haynesville, Fayetteville,
17 and SCOOP (South Central Oklahoma Oil Province) and STACK (Sooner Trend Anadarko
18 Basin Canadian and Kingfisher Counties) shale plays, as well as production from the Gulf
19 Coast and Northeast Marcellus/Utica shale plays.

20 The Company will utilize a combination of FT contracts with MRT and some
21 utilization of MRT's Interruptible Transportation. In addition, the Company also intends to
22 utilize some third-party capacity releases and pipeline storage services to deliver natural
23 gas to the Project. The Company has been a shipper on this pipeline for many years and

1 has no reason to expect that this source of fuel will be anything other than reliable for the
2 Spring, Summer, and Fall seasons each year.

3 As explained earlier, however, peak winter day natural gas supply issues may be
4 present on the pipeline, so it is for this reason that the Project is being designed to run on
5 both natural gas and fuel oil, as I previously explained.

6 **Q. What difference will these benefits from utilizing the former Meramec
7 Energy Center site make to the Project?**

8 A. As I have described, they will reduce both the cost and the time necessary
9 to place the Project in operation, which is a benefit to customers.

10 **VI. CONCLUSION**

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

13 A. I recommend the Commission approve a CCN for the Project because it is
14 a needed dispatchable energy resource addition to the Company's generation portfolio.

15 **Q. Does this conclude your direct testimony?**

16 A. Yes, it does.

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

In the Matter of the Application of Union Electric)
Company d/b/a Ameren Missouri for Permission and)
Approval and Certificate of Public Convenience and) File No.: EA-2024-0237
Necessity Authorizing it to Construct a Renewable)
Generation Facility)

AFFIDAVIT OF ANDREW MEYER

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

Andrew Meyer, being first duly sworn on his oath, states:

My name is Andrew 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.

/s/ Andrew Meyer

Andrew Meyer

Sworn to me this 6th day of June 2024.