# MISSOURI PUBLIC SERVICE COMMISSION

# STAFF REPORT

**UNION ELECTRIC COMPANY,**
**d/b/a Ameren Missouri**

**CASE NO. EA-2024-0237**

***Jefferson City, Missouri***
***September 13, 2024***

** Denotes Confidential Information **

*** Denotes Highly Confidential Information ***

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## I. EXECUTIVE SUMMARY

On June 7, 2024, Union Electric Company, d/b/a Ameren Missouri ("Ameren Missouri" or "Company") filed an application requesting[1] the Commission:

- Grant Ameren Missouri a Certificate of Convenience and Necessity ("CCN") under subsection 1 of Section 393.170 authorizing Ameren Missouri to construct, install, own, operate, maintain and otherwise control and manage an electric generating facility to be constructed in St. Louis County, Missouri (the "Castle Bluff Project");
- Grant a variance from the requirement in 20 CSR 4240-20.045(6)(J) allowing the Company to submit an overview of its plans for restoration of safe and adequate service after significant, unplanned/forced outages ninety (90) days prior to the time when the Castle Bluff Project will be placed in-service; and
- Authorize Construction Accounting allowing the Company to accrue Allowance for Funds Used During Construction on the Project and to defer the depreciation expense of the Project during the period commencing when the costs of the Project are booked to plant in-service and ending the effective date of new rates in the Ameren Missouri electric general rate proceeding when the investment in the Project is included in plant-in-service for ratemaking purposes.

Staff reviewed the Application and supporting direct testimony of Ameren Missouri witnesses Matt Michels, Andrew Meyer, Chris A. Stumpf, Steven A. Wills, and Mitchell Lansford and submits this Rebuttal Report in response.

Based on Staff's review, Staff recommends the Commission grant Ameren Missouri a CCN for the Castle Bluff Project, subject to the following conditions:

[1] Application Page 1.

- Ameren Missouri shall provide Staff the completed Replacement Impact Study, Reliability Assessment Study, and if required by MISO[2], Facilities Study. If the results of the required study materially change the total cost of the project by increasing total interconnection costs more than 15% above modeled interconnection costs, Ameren Missouri shall notify the Commission by a filing in this case.
- Staff and the Company filing a set of in-service criteria prior to the start of construction of this project.
- Ameren Missouri shall notify Staff if Ameren Missouri changes the operations from being economically dispatched in the Day-ahead and Real-time Markets
- Staff recommends the Commission condition any approval of the current CCN with a condition requiring quarterly reporting of progress of the construction. This report shall include, but not be limited to quarterly progress reports on permitting, plans, specifications, and construction progress for the project be included in the CCN.
- Ameren Missouri shall provide all cold weather readiness reporting for these units, and develop and implement a policy to determine if tuning is necessary and provide that policy to Staff.
- Ameren Missouri's operating air permit shall allow for tuning on both fuels.
- Ameren Missouri shall submit an overview of its plans for restoration of safe and adequate service after significant, unplanned/forced outages ninety (90) days prior to the time when the Castle Bluff Project will be placed in-service.

Staff further recommends the Commission deny Ameren Missouri's request for Construction Accounting.

*Staff Witness: Kimberly K. Bolin*

[2] Midcontinent Independent System Operator, Inc. ("MISO").

## II. APPLICATION REQUIREMENTS

The filing requirements for CCN applications for the authority to construct an asset are contained in Commission rule 20 CSR 4240-20.045(6). Ameren Missouri outlines the specific requirements in Section III of its Application. Staff has reviewed the Application and supporting testimony, which contain the filing requirements, except in instances where Ameren Missouri requested a variance from the rule to provide the remaining information at a later date.

The Project consists of four 200 MW simple cycle combustion turbines ("CTGs") to be located at the former Meramec Energy Center site and will connect to Ameren Missouri's 138 kV transmission system. Ameren Missouri has included a description of the site as well as a map of the unit's expected location within Schedule C of its Application.[3] Ameren Missouri represents that no third parties own any utility infrastructure or rail lines that cross the proposed site.[4] Further specifications are available as part of Schedule CS-D1 of Ameren Missouri witness Chris A. Stumpf's direct testimony[5,6]. Ameren Missouri estimates that construction will begin around March 2026[7], and the plant to be in-service by October 31, 2027.[8] Ameren Missouri claims that there will be no common plant used in the construction of this facility.[9]

The proposed Castle Bluff Project is expected to cost approximately $900 million for the four simple cycle combustion turbines.[10] Ameren Missouri plans to initially use short term debt to finance the project, and later transition this into a mix of long term debt and common equity as the project proceeds.[11] Ameren Missouri has also expressed interest in utilizing construction accounting in order to recover the cost of the plant once it is placed in-service but before it is reflected in rates.[12] Staff's position on these issues will be further discussed in the following sections of this report. According to the application, the project is a part of the Ameren Missouri's

[3] Required by rule 20 CSR 4240-20.045(6)(A).
[4] Required by rule 20 CSR 4240-20.045(6)(B).
[5] Ameren Missouri's Application indicates the specifications are contained in CS-D2.
[6] Required by rule 20 CSR 4240-20.045(6)(C).
[7] According to the Response to Staff Data Request No. 0039, Ameren Missouri also stated that a more precise date would be available by the end of September 2024, as that was when EPC bids were due.
[8] Further information concerning the planning and construction schedule is available on Page 5 of Ameren witness Chris A. Stumpf's direct testimony, this is required by rule 20 CSR 4240-20.045(6)(D).
[9] Required by rule 20 CSR 4240-20.045(6)(E).
[10] From Application, as well as Stumpf's Public Testimony, Page 3 Line 21.
[11] Public Response to Staff Data Request No. 0008.
[12] Required by rule 20 CSR 4240-20.045(6)(F).

preferred resource plan, with a focus on extreme weather situations.[13] Staff further discusses this issue later in this report.

Ameren Missouri used competitive bidding to select the turbines and transformers, as well as the Engineering, Procurement, and Construction contract to be used in construction. The methodology used as well as the scorecards used by Ameren Missouri were provided to Staff in response to Staff Data Request No. 0012.[14] Ameren Missouri plans to manage the site similarly to other simple cycle CTGs that it owns.[15] Ameren Missouri has not provided an affidavit verifying that all affected landowners have been notified, as the entirety of the project will occur on property owned by Ameren Missouri, thus no landowners will be affected.[16]

Ameren Missouri has requested a variance from 20 CSR4240-20.45(6)(J), which requires "An overview of plans for restoration of safe and adequate service after significant, unplanned/forced outages of an asset." Ameren Missouri requests to be allowed to submit these restoration plans 90 days prior to Castle Bluff's in service date of October 31, 2027. This is not the first variance request to this portion of the rule that Ameren Missouri has made and the Commission approved; therefore, Staff recommends the Commission order Ameren Missouri to provide the restoration plans at least 90 days prior to the project's in-service date.

*Staff Witness: Brodrick Niemeier*

## III. TARTAN CRITERIA DISCUSSION

When considering a request for a CCN, the Commission has generally applied criteria originally developed in a CCN case filed by the Tartan Energy Company[17] and referred to now as the "Tartan criteria." The Tartan criteria contemplate:

- the need for service;
- the utility's qualifications;
- the utility's financial ability;
- the economic feasibility of the proposal; and,
- promotion of the public interest.

[13] Required by rule 20 CSR 4240-20.045(6)(G).
[14] Required by rule 20 CSR 4240-20.045(6)(H).
[15] Required by rule 20 CSR 4240-20.045(6)(I).
[16] Required by rule 20 CSR 4240-20.045(6)(K).
[17] In the Matter of the Application of Tartan Energy Company, LLC, d/b/a Southern Missouri Gas Company, 3 Mo P.S.C.3d 173, 177 (1994).

These factors are an over-arching general framework to organize discussion of the evidence in review of the various types of CCN applications that come before the Commission. Each CCN case must be evaluated in light of the regulatory context and operating circumstances of a project. The Commission's inquiry does not end at a surface level Tartan analysis.

***Is the service needed?***

In evaluating whether the service is needed Staff considers the following questions:

a. Is the project both important to the public convenience and desirable for the public welfare?

b. Or, is the project effectively a necessity because the lack of the service is such an inconvenience?

Ameren Missouri presents its argument that the Project is needed[18] covering five topics to which Staff will respond individually:

1. Extreme weather and the potential exposure to energy markets;
2. Contribution toward resource adequacy;
3. Future customer demand;
4. Mitigate risk related to reliance on coal-fired generation; and
5. Complement to renewable energy resources.

For the reasons discussed in detail below, Staff agrees that the Project's contribution toward Ameren Missouri's resource adequacy demonstrates that the Project is effectively a necessity because the lack of the service is such an inconvenience.

**Extreme Weather**

As discussed below, Staff recommends the Commission determine that the project is needed for purposes of the Tartan evaluation. In his direct testimony, Ameren Missouri witness Mr. Michels discusses an Ameren Missouri evaluation of extreme weather events and he concludes that this project is needed for extreme weather events.[19] Staff has not fully vetted all assumptions

[18] EA-2024-0237 Application Page 5.
[19] EA-2024-0237 Matt Michels Direct Page 3 Line 6 - Page 9 Line 2.

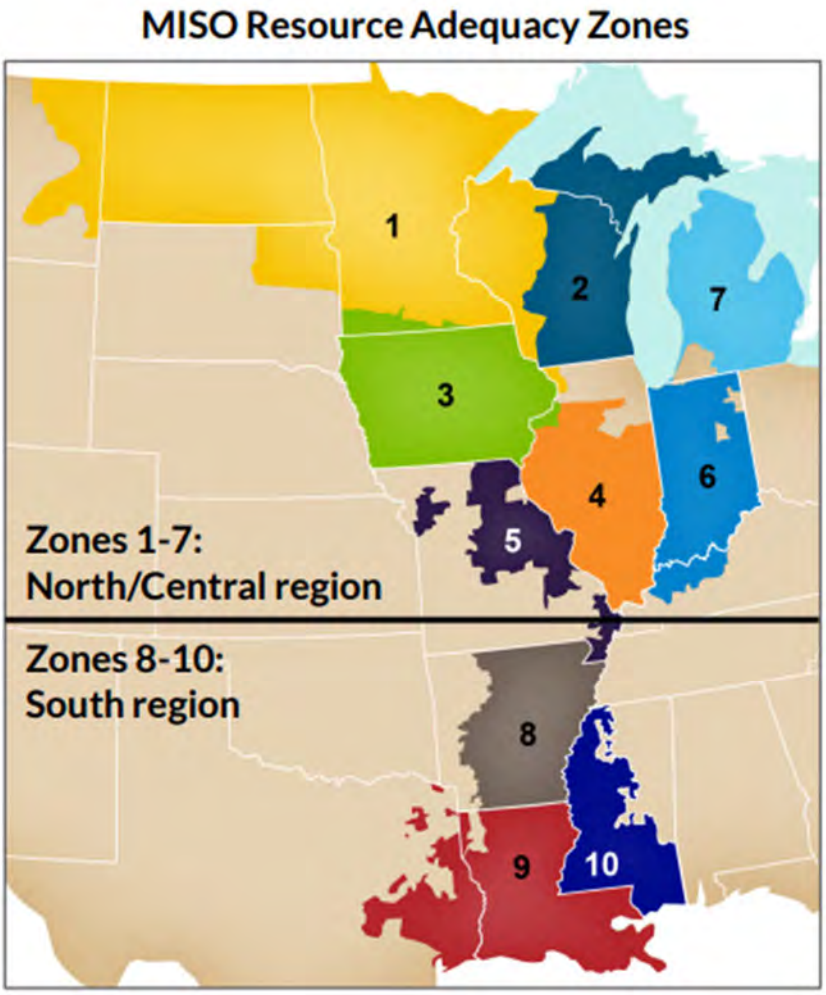
used in Ameren Missouri's extreme weather scenario. Staff cautions that even if the Commission grants the CCN for the proposed resource and this resource addition allows Ameren Missouri's resource portfolio to have above the sufficient level of generation for the Ameren Missouri load and reserve margin in any and every given hour for an extreme weather event, if another entity in MISO does not have sufficient capacity for their load and reserve margin during an extreme weather event, MISO can and may call for load shedding of Ameren Missouri load. In other words, even with the approval of this CCN, Ameren Missouri cannot guarantee that its customers will have all load met in the event of extreme weather conditions. Below, Staff recommends a condition regarding winter weather operations.

**Resource Adequacy**

Resource adequacy is the ability of the electric system to meet the energy needs of electricity consumers by having sufficient generation to meet projected electric demand. MISO evaluates its system by local resource zone to ensure there is sufficient capacity for the local resource zone for the expected load including a reserve margin; this is referred to as the Local Clearing Requirement. Additionally, MISO utilizes a capacity auction (Planning Resource Auction ("PRA")) to give price signals when additional capacity is need.

While MISO requires load serving entities within each local resource zone to have sufficient resources to meet load and required reserves, surplus resources may be shared among load serving entities with resource deficits to meet reserve requirements. Ameren Missouri is the primary load serving entity in load zone 5, and has ownership in generation assets in local resource zone 4. A map[20] showing the different zones is shown below.

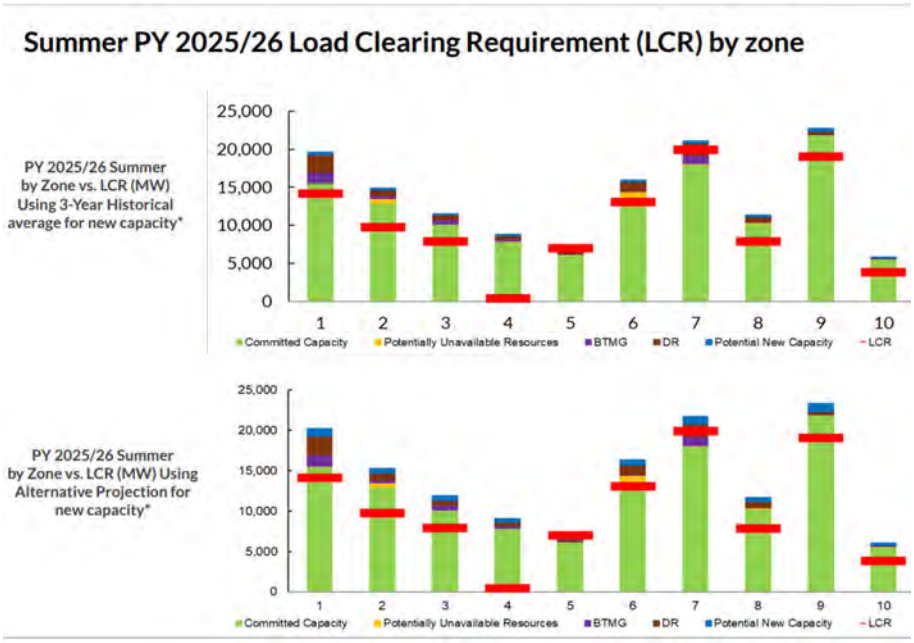
[20] https://cdn.misoenergy.org/2024%20PRA%20Results%20Posting%2020240425632665.pdf
MISO Planning Resource Auction Results for Planning Year 2024-25 Dated April 25, 2024 Slide 3.



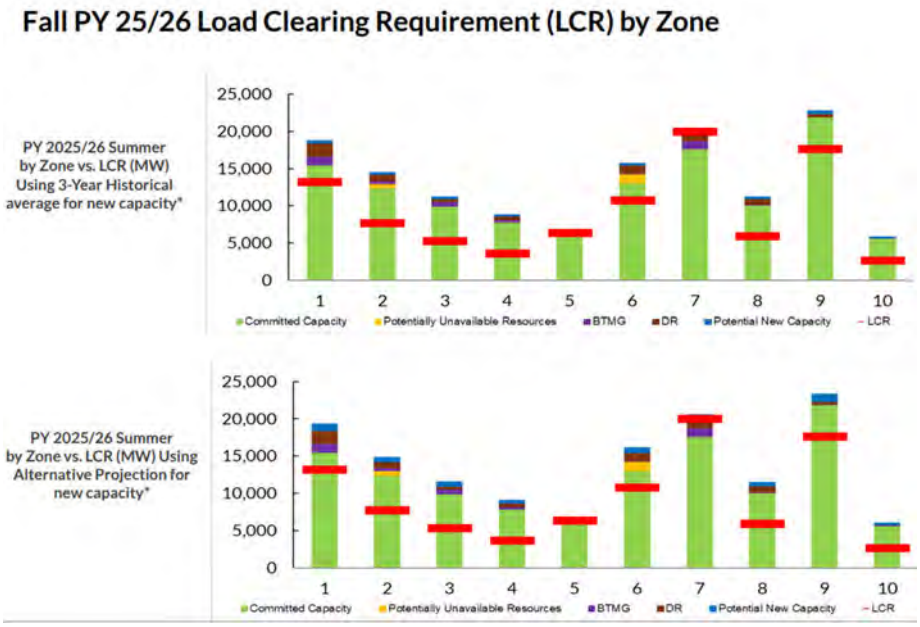

The Organization of MISO States ("OMS") and MISO performs an annual survey evaluating anticipated resources by zone over a five-year horizon. The current survey provides the local clearing requirement by zone for the 2025/2026 planning year.

The charts below[21] show that, excluding the winter season, the expectation is that local resource zone five (5) is close to the load clearing requirement for planning year 2025/2026. Note these charts do not include imports and interzonal transfers.

21 https://cdn.misoenergy.org/20240620%20OMS%20MISO%20Survey%20Results%20Workshop%20Presentation635585.pdf 2024 OMS-MISO Survey Results Dated June 20, 2024 Slide 26.

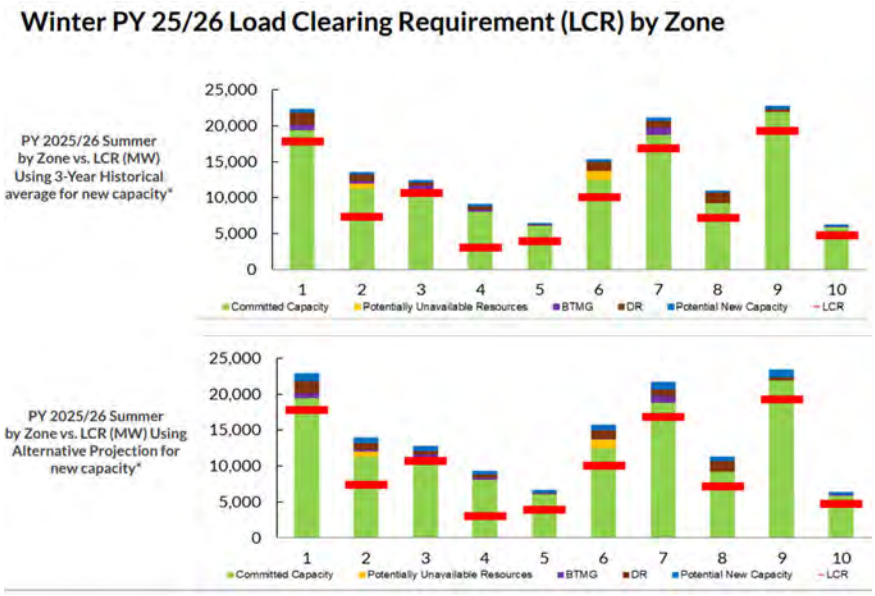



Below are the results of the OMS survey for Fall 2025/2026 by zone[22].

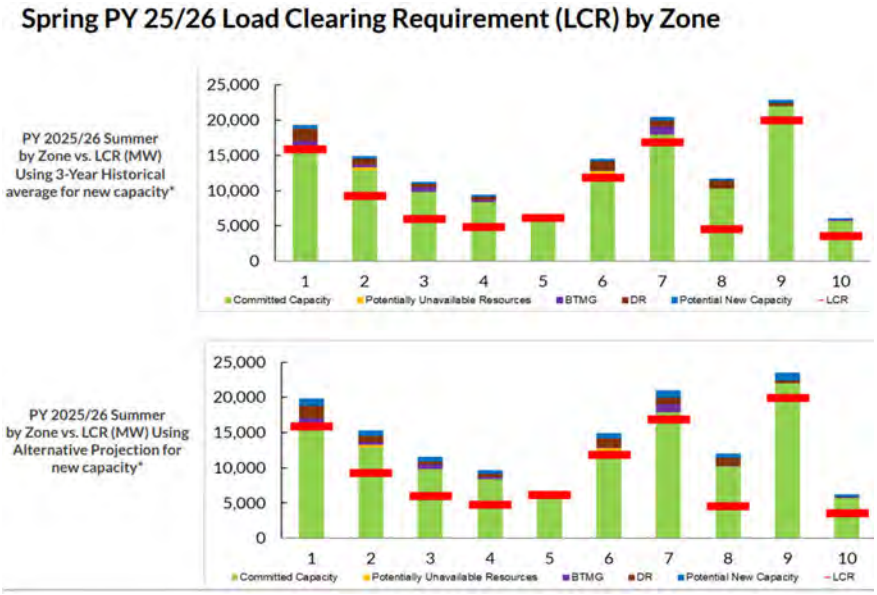



22 https://cdn.misoenergy.org/20240620%20OMS%20MISO%20Survey%20Results%20Workshop%20Presentation635585.pdf 2024 OMS-MISO Survey Results Dated June 20, 2024 Slide 27.

Below are the results of the OMS survey for winter 2025/2026 by zone[23].




Below are the results of the OMS survey for spring 2025/2026 by zone[24].




[23] https://cdn.misoenergy.org/20240620%20OMS%20MISO%20Survey%20Results%20Workshop%20Presentation635585.pdf 2024 OMS-MISO Survey Results Dated June 20, 2024 Slide 28.

[24] https://cdn.misoenergy.org/20240620%20OMS%20MISO%20Survey%20Results%20Workshop%20Presentation635585.pdf 2024 OMS-MISO Survey Results Dated June 20, 2024 Slide 29.

As the Commission is well aware, MISO's capacity auction for Spring and Fall 2024-2025 resulted in a capacity auction price of $719.81 MW-Day for zone 5, as shown below. [25]

**2024 PRA Results**

| Zone | Local Balancing Authorities | Summer | Fall | Winter | Spring |
|---|---|---|---|---|---|
| | | | *(Price $/MW-Day)* | | |
| 1 | DPC, GRE, MDU, MP, NSP, OTP, SMP | 30.00 | 15.00 | 0.75 | 34.10 |
| 2 | ALTE, MGE, UPPC, WEC, WPS, MIUP | 30.00 | 15.00 | 0.75 | 34.10 |
| 3 | ALTW, MEC, MPW | 30.00 | 15.00 | 0.75 | 34.10 |
| 4 | AMIL, CWLP, SIPC, GLH | 30.00 | 15.00 | 0.75 | 34.10 |
| 5 | AMMO, CWLD | 30.00 | 719.81 | 0.75 | 719.81 |
| 6 | BREC, CIN, HE, IPL, NIPS, SIGE | 30.00 | 15.00 | 0.75 | 34.10 |
| 7 | CONS, DECO | 30.00 | 15.00 | 0.75 | 34.10 |
| 8 | EAI | 30.00 | 15.00 | 0.75 | 34.10 |
| 9 | CLEC, EES, LAFA, LAGN, LEPA | 30.00 | 15.00 | 0.75 | 34.10 |
| 10 | EMBA, SME | 30.00 | 15.00 | 0.75 | 34.10 |
| ERZ | KCPL, OPPD, WAUE (SPP), PJM, OVEC, LGEE, AECI, SPA, TVA | 30.00 | 15.00 | 0.75 | 34.10 |

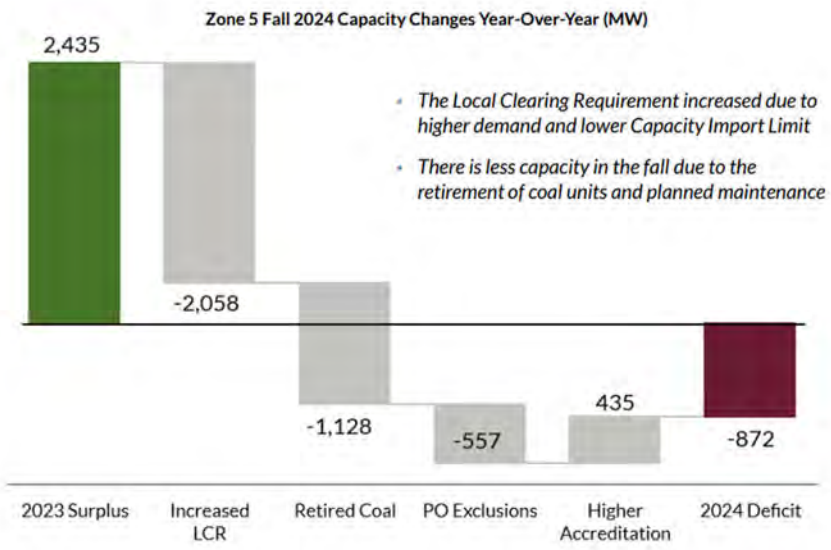
Highlighted values are CONE pricing

If the auction does not have enough installed capacity, the auction uses a price for the Cost of New Entry ("CONE").[26] The CONE for 2024-2025 capacity auction was priced at $719.81/MW-Day. The local resource zone five (5) for MISO north priced at $719.81 MW-Day shows that as a whole, MISO local resource zone five (5) is short on capacity in fall and spring.

As shown below[27], there are multiple items that play a role in why local resource zone five (5) is short in fall 2024. First Rush Island is presumed to be retired[28] and there are coal plants

[25] https://cdn.misoenergy.org/2024%20PRA%20Results%20Posting%2020240425632665.pdf.
MISO Planning Resource Auction Results for Planning Year 2024-25 Dated April 25, 2024 Slide 3.
[26] Cost of New Entry is an industry-wide term, used to indicate the current, annualized, capital cost of constructing a power plant. https://cdn.misoenergy.org/20221012%20RASC%20Item%2004c%20CONE%20Update626542.pdf slide 4.
[27] https://cdn.misoenergy.org/2024%20PRA%20Results%20Posting%2020240425632665.pdf.
MISO Planning Resource Auction Results for Planning Year 2024-25 Dated April 25, 2024 Slide 5.
[28] Staff has pointed out in EF-2024-0021, Rush Island and Ameren's decision making in Rush Island major boiler modifications, subsequent litigation, and its planning for the outcome of the litigation may impact this decision as well as future decisions. Staff has also pointed out in EF-2024-0021 that the modeling performed by Ameren Missouri with regard to an early retirement of Rush Island may have been better. Please see Claire M. Eubanks' testimony in EF-2024-0021 for more information on those aspects.

in local resource zone five (5) that will be down for maintenance. There are accreditation changes for some plants in the Ameren Missouri fleet. Finally, there is an expected higher demand for electricity as well as limitation on the power coming into local resource zone five (5).

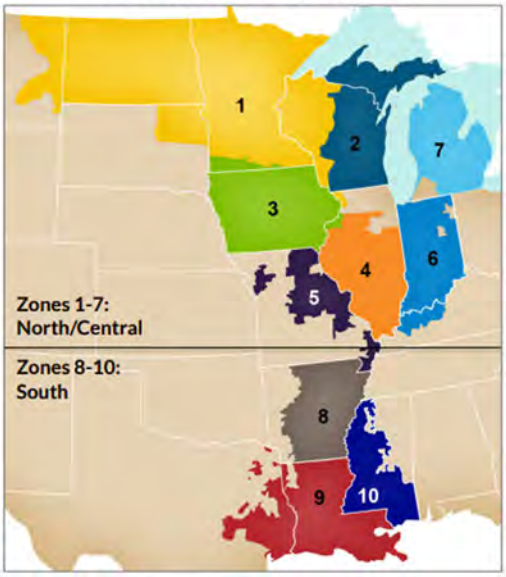



For 2023, as shown below[29], local resource zone 5 priced out at $15.00 or less, depending on season.

2023 PRA Results

| Zone | Local Balancing Authorities | Price $/MW-Day Summer | Fall | Winter | Spring |
|---|---|---|---|---|---|
| 1 | DPC, GRE, MDU, MP, NSP, OTP, SMP | $10.00 | $15.00 | $2.00 | $10.00 |
| 2 | ALTE, MGE, UPPC, WEC, WPS, MIUP | $10.00 | $15.00 | $2.00 | $10.00 |
| 3 | ALTW, MEC, MPW | $10.00 | $15.00 | $2.00 | $10.00 |
| 4 | AMIL, CWLP, SIPC, GLH | $10.00 | $15.00 | $2.00 | $10.00 |
| 5 | AMMO, CWLD | $10.00 | $15.00 | $2.00 | $10.00 |
| 6 | BREC, CIN, HE, IPL, NIPS, SIGE | $10.00 | $15.00 | $2.00 | $10.00 |
| 7 | CONS, DECO | $10.00 | $15.00 | $2.00 | $10.00 |
| 8 | EAI | $10.00 | $15.00 | $2.00 | $10.00 |
| 9 | CLEC, EES, LAFA, LAGN, LEPA | $10.00 | $59.21 | $18.88 | $10.00 |
| 10 | EMBA, SME | $10.00 | $15.00 | $2.00 | $10.00 |
| ERZ | KCPL, OPPD, WAUE (SPP), PJM, OVEC, LGEE, AECI, SPA, TVA | $10.00 | $15.00 | $2.00 | $10.00 |

MISO Resource Adequacy Zones




[29] https://cdn.misoenergy.org/2023%20Planning%20Resource%20Auction%20(PRA)%20Results628925.pdf slide 4.

While Ameren Missouri has received Commission approval for a number of additional solar facilities, these additions may not be sufficient to address the capacity needs in local resource zone 5. Ameren Missouri Witness Mr. Andrew Meyer states "The Project mitigates Ameren Missouri's exposure to the MISO PRA and will help cure the Zone 5 price separation."[30] Staff agrees that this project will help future local resource zone 5 PRA results.

For these reasons, Staff agrees that the Project is effectively a necessity because the lack of the service is such an inconvenience.

**Future Customer Demand**

Ameren Missouri witness Michels states "Ameren Missouri and much of the United States have seen a rapid increase in interest from prospective customers who are searching for sites for new large data centers, with peak demands in the hundreds of megawatts each."[31] Mr. Michels gives two examples of large data centers that may locate in Ameren Missouri territory in Missouri. "The first is ** [redacted] **, which plans to build a ** [redacted] ** MW data center"[32] and "The second is ** [redacted] **, which plans to build a ** [redacted] ** MW data center".[33] Staff is aware of these projects as well as other potential projects that may elect to site in the region if their needs or requirements are met or fulfilled by the region. Needs or requirements may include available capacity in the region.

**Risk of Reliance on Coal**

Mr. Michels states the US EPA has continued to promulgate rules affecting fossil fueled resources, especially coal-fired generators. Staff provides the following overview of environmental policies, regional and national, that may impact Ameren Missouri's current and future generation fleet.

The Climate and Equitable Jobs Act ("CEJA") is recent legislation that became law in Illinois. This legislation has timelines for retirements of fossil generation types starting in 2030 and extending to 2045. Additionally, CEJA limits the emissions of Carbon Dioxide and

[30] EA-2024-0237 Andrew Meyer Direct Page 16 Lines 8 - 9.
[31] EA-2024-0237 Matt Michels Direct Page 10 Lines 11 – 13.
[32] EA-2024-0237 Matt Michels Direct Page 10 Lines 22 – 23.
[33] EA-2024-0237 Matt Michels Direct Page 11 Line 3.

copollutants.[34] Copollutants are other deemed pollutants that are created with the Carbon Dioxide through the combustion process. These may include sulfur dioxide, nitrogen oxides, and others.

All of Ameren Missouri's fossil generation assets in Illinois[35] will have limitations on emissions and depending on certain factors in the legislation, may be required to retire earlier than expected prior to the legislation passage. Both of these impact Ameren Missouri with the potential for early retirements as well as limiting the output of the natural gas generation facilities in Illinois.

As of August 4, 2023, the "Good Neighbor rule" of the Clean Air Act is in effect. This rule will limit nitrogen emissions in Missouri and 21 other states, by implementing an allowance-based trading program. Ameren Missouri anticipates the rule to result in reductions in output of coal plants, in Missouri, during May through September each year without additional nitrogen controls.[36]

On December 23, 2020, the Environmental Protection Agency decided to retain the existing ozone National Ambient Air Quality Standard ("NAAQS"). The existing primary and secondary standards, established in 2015, are 0.070 parts per million (ppm), as the fourth-highest daily maximum 8-hour concentration, averaged across three consecutive years. Missouri Department of Natural Resources ("MDNR") and Ameren Missouri have finalized consent decrees for a number of its coal plants which are included in the proposed Missouri State Implementation Plan Revisions for the 2015 Ozone Standard.

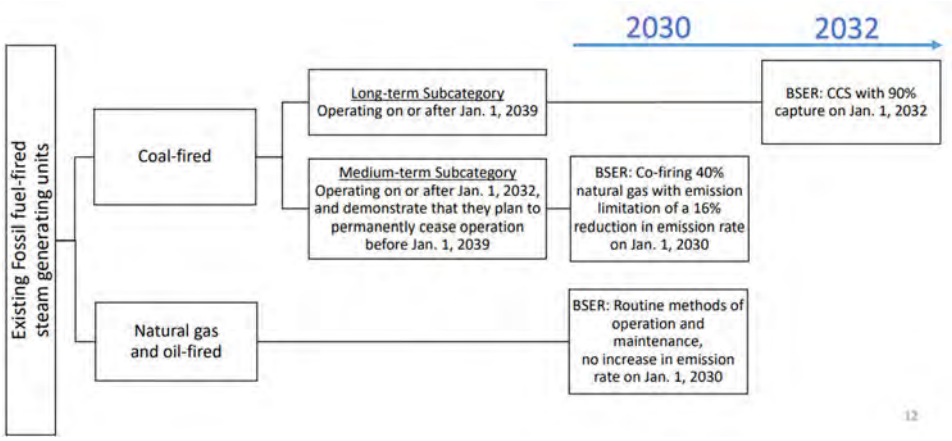
On April 25, 2024 the EPA announced a series of new final rules. These final rules include[37]:

- A final rule for existing coal-fired and new natural gas-fired power plants that would ensure that all coal-fired plants that plan to run in the long-term and all new baseload gas-fired plants control 90 percent of their carbon pollution.
- The Mercury and Air Toxics Standards (MATS) for coal-fired power plants, tightening the emissions standard for toxic metals by 67 percent and finalizing a 70 percent reduction in the emissions standard for mercury from existing lignite-fired sources.

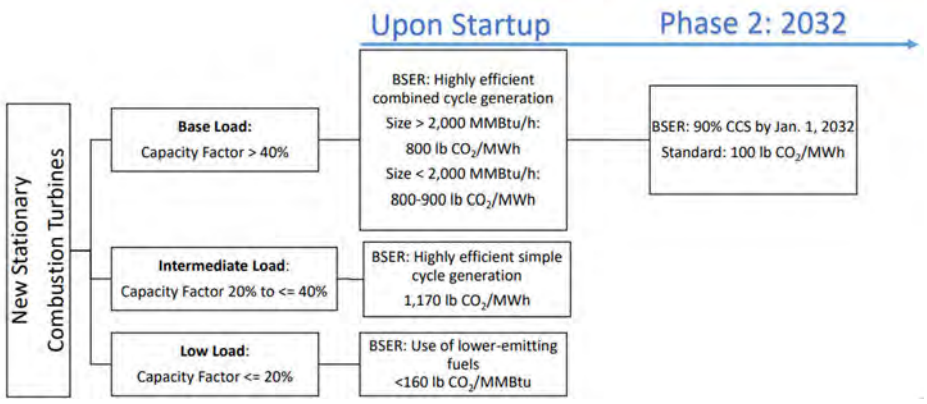
[34] As of the effective date of the Act, no unit may emit, in any 12-month period, CO2e or copollutants in excess of that unit's existing emissions for those pollutants.
[35] The Ameren Missouri facilities physically located in Illinois and capacities are the Venice Energy Center (489 MW), the Raccoon Creek Energy Center (304 MW), Pinckneyville Energy Center (316 MW), Goose Creek Energy Center (438 MW), and the Kinmundy Energy Center (210 MW).
[36] EA-2023-0286 Matt Michels Direct Page 32 Lines 3 - 10.
[37] https://www.epa.gov/newsreleases/biden-harris-administration-finalizes-suite-standards-reduce-pollution-fossil-fuel.

- A final rule to reduce pollutants discharged through wastewater from coal-fired power plants by more than 660 million pounds per year.
- A final rule that will require the management of coal ash that is placed in areas that were unregulated at the federal level until now, including at previously used disposal areas that may leak and contaminate groundwater.

The current version of the EPA's Green House Gas ("GHG") rule will impact fossil plant operations. Coal plants will be required to retire by 2032 without investment in the Best System of Emission Reduction ("BSER") technology of Carbon Capture and Sequestration ("CCS") or converting to fire or co-fire on natural gas.[38]




The final rule did not include standards for existing natural gas-fired Combustion Turbine Generator facilities. Ameren Missouri proposes to construct new simple cycle combustion turbines, and as shown below[39], the rule has restrictions on new stationary combustion turbine facilities based on capacity factor.




[38] https://www.epa.gov/system/files/documents/2024-04/cps-presentation-final-rule-4-24-2024.pdf Slide 12.
[39] https://www.epa.gov/system/files/documents/2024-04/cps-presentation-final-rule-4-24-2024.pdf Slide 10.

**Complement Renewables**

Mr. Michels says that the addition of this project would help balance any variability in wind and/or solar resources.[40] Staff does agree generally that the addition of fast starting, quick ramping resources can help complement wind and solar resources to meet the load for a given hour.

*Staff Witness: Shawn E. Lange, PE*

***Is the applicant qualified to provide the service?***

The Commission has generally applied the Tartan criteria to determine whether to issue a certificate of convenience and necessity for public service. Central to these criteria is evaluating the applicant's qualifications to provide the specified service. When assessing Ameren Missouri's suitability for constructing, installing, owning, operating, maintaining, and otherwise controlling the Castle Bluff Project, Staff considered Ameren Missouri's experience and expertise with other similar energy generation facilities.

Ameren Missouri's ownership, operation, and construction of numerous energy facilities, along with serving over 1.2 million customers, demonstrates its experience and expertise in managing and maintaining energy generation facilities. Ameren Missouri currently owns and operates 43 simple cycle combustion turbine generator units at 12 locations.

Therefore, Ameren Missouri is qualified to construct, install, own, operate, maintain, and otherwise control the Castle Bluff plant.

*Staff Witness: Malachi Bowman*

***Does the applicant have the financial ability to provide the service?***

Staff presents evidence and provides a recommendation regarding the financial ability of the Ameren Missouri to construct, install, own, operate, maintain, and otherwise control and manage an electric generating facility to be constructed in St. Louis County, Missouri (the "Castle Bluff Project" or the "Project"). The Castle Bluff Project is an approximately 800 megawatt (MW) multi-unit simple cycle natural gas electric generation facility with fuel oil

[40] EA-2024-0237 Matt Michels Direct Page 17 Line 11 – Page 18 Line 2.

backup capability and will connect to Ameren Missouri's 138kV transmission system via the repurposing of the existing switchyard at the facility.[41]

Ameren Missouri intends to finance the Castle Bluff Project initially with short-term debt as expenditures are incurred, prior to financing it on a long-term basis with a mix of debt and equity roughly in proportion to its targeted capital structure, consisting of approximately 52% common equity and 48% long-term debt.[42] In its most recent rate case, Ameren Missouri proposed a ratemaking capital structure consisting of 51.997% common equity, 0.539% preferred stock, and 47.463% long-term debt projected at December 31, 2024.[43]

In the Application, it is stated:

> The Company's existing rate base – financed by an appropriate balance of debt and equity – exceeds $11 billion, and its planned capital additions over the coming five years exceed $11 billion. Moreover, the Company has sufficient access to capital markets based on, among other things, its stable credit ratings of Baa1 and BBB+, per Moody's and Standard & Poor's credit rating agencies, respectively. Ameren Missouri is able to finance the Castle Bluff Project.[44]

According to Mr. Steven Wills, there is little question regarding Ameren Missouri's financial wherewithal to undertake the Castle Bluff Project because (1) Ameren Missouri's existing rate base exceeds $11 billion; (2) planned capital additions for the coming five years (not including the Castle Bluff Project) also exceed $11 billion; and (3) Moody's and Standard & Poor's assigned stable credit ratings of Baa1 and BBB+, respectively.[45]

With consideration of Ameren Missouri's financial capacity, the Applicant has the financial ability to provide the service. Ameren Missouri plans to spend $9 billion through 2025 on grid modernization, transmission system build-out, and renewable generation capacity.[46] Standard & Poor's ("S&P") expects an average of $1.7 billion in capital spending per year through 2024. Ameren Missouri is a wholly owned subsidiary of Ameren Corporation ("Ameren Corp."). Ameren Missouri currently has access of up to $1 billion of committed credit

[41] Paragraph 7, The Application.
[42] Staff Data Request No.0008.
[43] Schedule DTS-D1, Darryle T. Sagel's Direct Testimony, File No. ER-2024-0319.
[44] Paragraph 37, The Application.
[45] Page 9 Lines 14 - 18, Steven M. Wills' Direct Testimony.
[46] RatingsDirect, Union Electric Company, S&P Global Ratings. March 23, 2023.

via its $1.4 billion Missouri credit facility that it shares with its parent, Ameren Corp.[47] Over the next five years, S&P expects Ameren Corp.'s elevated capital spending to reflect roughly $19.7 billion in capital spending through 2024 across its electric transmission and electric and gas distribution businesses.[48] Overall, S&P expects Ameren Missouri's capital spending will account for about 60% of its parent, Ameren Corp.'s, 2024-2028 capital spending plan.[49]

S&P and Moody's rated both Ameren Missouri and Ameren Corp. as investment grade. S&P rated both Ameren Missouri and Ameren Corp. as "BBB+", while Moody's rated them as "Baa1".[50] In addition Staff found no material change in Ameren Missouri's financial risk profile due to the Castle Bluff Project upon investigating the financial impact of the Castle Bluff Project.[51] Considering the proposed cost and financial impact of the Castle Bluff Project, it is reasonable to conclude that Ameren Missouri has the financial ability to construct, operate, and maintain the Castle Bluff Project.

*Staff Witness: Seoung Joun Won, PhD*

***Is the applicant's proposal economically feasible?***

An important aspect of determining whether a project is economically feasible it to determine:

a. Is the project of sufficient importance to warrant the expense of making it?
b. Or, is the project such an improvement as to justify or warrant the expense of making the improvement?

It is reasonable to assume that Ameren Missouri has selected a reasonable solution to the necessity identified, including selection of the type of facility, the operational characteristics of the facility, the acquisition of the facility, and transmission necessary to use the projects to meet the need identified. Based upon these facts, as well as those identified elsewhere in this report and the expediency of the needs identified, Staff concludes that the project is of sufficient importance to warrant the expense of making it.

[47] Staff Data Request No.0007.
[48] Ameren Corporation, RatingsDirect, S&P Global Ratings. March 23, 2023.
[49] Ameren Corporation, RatingsDirect, S&P Global Ratings. March 20, 2024.
[50] S&P Capital IQ Pro.
[51] Staff Data Request Nos. 0001 and 0002.

**IRP and Alternative Resource Plans**

In Mr. Michels direct testimony he describes the results of the analysis of alternative resource plans that resulted from a Stipulation and Agreement filed in Case No. EA-2023-0286. Upon further review of the workpapers provided in support of the alternative scenarios, it appears that the analysis for Staff/OPC[52] Scenario 3[53] misrepresents Staff's proposed alternative which was intended to convert two simple cycle ("SC") units into one combined cycle ("CC") unit. It is clear that Ameren Missouri added the additional cost and generation of a new combined cycle unit as well as an earlier SC unit on top of the Scenario 3 description of generation units. This provides context as to why Ameren Missouri's overview[54] shows Staff-OPC Scenario 3 is by far the most expensive and most reliable (in terms of loss-of-load expectation) scenario in Ameren's analysis. In Ameren's analysis of Staff-OPC Scenario 3[55], and summarized in *Table 1*, the *New SC* capacity that begins in 2028 is not added or subtracted in the calculation of *Total Intermediate/Peaking/Intermittent Capacity*. Additionally, Ameren's calculation of *Total Intermediate/Peaking/Intermittent Capacity* includes the capacity from *Staff SCN3-SCtoCC* beginning in 2028, on top of the capacity from the *New CC.*

**Table 1 - Ameren Missouri Total Generation Capacity (Summer)**

**

[redacted]

**

With the unnecessary inclusion of the *New CC* capacity, the capacity position represented in Ameren's analysis is much longer than what Staff intended. Referring to the summer data

[52] Office of the Public Counsel ("OPC").
[53] *Matt Michels Direct Testiony-CONF.pdf*; Page 15 Lines 16 - 20 and Page 17 Lines 1 - 4.
[54] *Schedule MM-D4 – Staff-OPC Scenario Analysis Overview.pdf.*
[55] *Capacity Revenue Calculations_Staff-OPC Scenario3.xlsx*.

represented in *Table 1* and *Figure 1*, we would expect the Capacity Position- Long/(Short) to be lower by 1092 MW starting in 2033 than what is currently graphed. This same trend is consistent for the other seasons included in Ameren Missouri's analysis.

**Figure 1 - Ameren Missouri Capacity Position (Summer)**

** [redacted] **

Part of Staff's rationale for requesting additional scenarios in the IRP was to test alternative generation addition scenarios that may functionally address many of the needs identified for Ameren Missouri ratepayers. It is possible that a combined cycle combustion turbine may have provided a more economical solution to some of the identified needs, but the alternative resource plans provided in Ameren Missouri's most recent IRP, including those alternatives discussed in Mr. Michels direct testimony in this case, do not provide a realistic comparison of ratepayer impacts of doing so.

## Fuel Assumptions

Ameren Missouri asserts that several of its existing simple cycle energy centers experienced forced outages during extreme winter weather events[56] due to

[56] Mandate from a pipeline (the regulated entity) that results from a mismatch between the amount of gas being supplied to its system, and the demand required by the market it serves. ** [redacted] **

** [redacted][57]. ** Ameren Missouri asserts that ** [redacted][58]. ** Because of those potential ** [redacted][59] **.

Staff's review of the 2023 IRP was unable to find supportive reference for Castle Bluff ** [redacted][60]. [redacted][61] [redacted][62], [redacted][63] [redacted] ** The type of NG transportation, contracted prices for fuel, fuel quantity, and operational characteristics[64] will impact the ongoing cost of any natural gas fired generation facility.

*Staff Witnesses: J Luebbert, Francisco Del Pozo, and Marina Stever*

***Does the service promote the public interest?***

The public interest assessment involves a reconsideration of the other Tartan Criteria. Staff considers the evaluation of the separate Tartan criteria and whether, on balance, the project promotes the public interest. Additionally, Staff reviews the project and whether there are any considerations not covered by the other Tartan Criteria that should be considered in the public interest assessment. More specifically, Staff evaluated the Project considering the questions below:

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[57] ** [redacted] ** Line 1 through Line 6 of Page 6 of Direct Testimony of Andrew Meyer.
[58] Page 3 Line 8 of Direct Testimony of Matt Michels.
[59] Line 8 Page 7 of Direct Testimony of Andrew Meyer.
[60] ** [redacted] **
[61] Data Request Nos. 0029, 0030, 0031, 0033, 0034 and 0035.
[62] ** [redacted] **
[63] ** [redacted] **
[64] *Firm Gas Estimates_CONF.xlsx*, 2023 IRP.

a. Has the Applicant provided sufficient evidence for the Commission to conclude:

1. The Applicant is managing the expense of the project despite its importance or necessity;

2. The Applicant has selected a reasonable solution to the necessity identified, including selection of the type of facility, the operational characteristics of the facility, the acquisition of the facility, and the acquisition of fuel and transmission necessary to use the projects to meet the need identified.

b. Are there conditions or mechanisms that can be imposed to overcome any deficits in the answers to the prior questions?

c. Has the Applicant presented an adequate direct case to demonstrate each question enumerated?

In this case Staff has a number of recommended conditions to address concerns that arose in evaluating whether granting a CCN in this case is necessary and convenient for the public interest and to address future reporting that Staff requires to assist the Commission in fulfilling its mission to ensure safe and adequate utility services at just and reasonable rates. These conditions will be discussed in more detail in the following sections and are related to the following topics:

- In-Service Criteria
- Project Interconnection Costs and Studies
- Winter Weather Operations
- Construction Reporting

## In-Service Criteria

In-service criteria are a set of operational tests or operational requirements developed by the Staff to determine whether a new unit is "fully operational and used for service." The phrase "fully operational and used for service" comes from Section 393.135, RSMo. 2000, a statute that was adopted by Initiative, Proposition No. 1, on November 2, 1976. Section 393.135, RSMo. provides as follows:

> Any charge made or demanded by an electrical corporation for service, or in connection therewith, which is based on the costs of construction in progress upon any existing or new facility of the electrical corporation, or any other cost associated with owning, operating, maintaining, or financing

> any property before it is **fully operational and used for service**, is unjust and unreasonable, and is prohibited. [Emphasis added.]

Staff recommends several criteria, which, in combination, are needed to determine that a unit is "fully operational" and "used for service." Certain criteria apply to every type of project, to ensure that all major construction work is complete. Other criteria are developed for the specific characteristics of the generating facility or retrofit. Certain fundamental tests are included to prove whether the unit can start properly, shut down properly, operate at its full design capacity, or operate for a period of time without tripping off line. Other items Staff would consider are whether the full output of the unit can be delivered into the electrical distribution/transmission system. An additional factor the Staff will consider is whether testing was performed pursuant to any contract and whether testing was performed prior to the company's accepting the unit from the contractor. In other words, the in-service criteria should be designed to demonstrate to the Commission that Missouri ratepayers are getting what they ultimately will pay for through rates.

Ameren Missouri, in the testimony of its witness Chris Stumpf, proposes three (3) changes to the typical in-service criteria that Staff has previously recommended for simple cycle CTGs. The three changes are related to air permit requirements versus contractual guarantees, the capacity factor used for testing, and MISO interconnection agreement.

Ameren Missouri witness Stumpf suggests that the in-service criteria demonstrate the CTG units comply with air permit requirements for operation rather than the contractual guarantees Ameren Missouri and its contractor(s) have agreed to.[65] Staff is concerned with this proposed change for multiple reasons. First, the actual operating air permit may not be available until November 2028. Staff is unable to agree to an in-service criterion based on information that may not to be available until November 2028. Secondly, the plant that Ameren Missouri and ultimately the Ameren Missouri ratepayers will pay for is what is defined in the contract that was provided as part of Ameren Missouri witness Stumpf's CS-D1. If Ameren Missouri was solely and only looking for assets that meet the air permit requirements then the cost of those assets may be different. Typically, when a utility requires stricter contractual guarantees, the cost of the contract

[65] EA-2024-0237 Chris A. Stumpf Direct Page 12 Line 20 – Page 13 Line 4.

is reflective of those requirements. Further, the contractual guarantees cover *** [redacted]. *** While Staff hopes that the contractual agreements are met and Staff does understand and is sympathetic to the overall contractual timing vs. project timing issue by Mr. Stumpf, Staff finds it a bridge too far to require adherence to permit requirements that may not be known until November 2028 when the contractual guarantees are available that Ameren Missouri negotiated. Further, Staff reviewed the last few sets of CTG additions by regulated utilities in the state, and the respective in-service criteria used included an evaluation of whether the unit was in compliance with all contract guarantees.

Another proposed change by Mr. Stumpf was to lower the required capacity factor down from fifty percent to thirty percent over the seventy-two-hour test period. Mr. Stumpf pointed to operating costs and fuel costs as reasons to cut back on the capacity factor. What Mr. Stumpf failed to mention is that the revenues associated with the generation during testing have historically been a benefit to the utility as testing occurs prior to the Commission's finding the unit is fully operational and useful for service (and thus included in base rates).

The final proposed change was to include the language "per the MISO Interconnection Agreement" in the following criterion: "Sufficient transmission interconnection facilities shall exist for the total plant design net electrical capacity at the time the unit is declared fully operational and used for service." Staff is in agreement with this suggested change.

Staff's traditional in-service criteria used for CTGs is located in attached Appendix 2. Staff does not recommend the Commission adopt Ameren Missouri's recommended in-service criteria at this time. Staff recommends the Commission condition the CCN approval on Staff and the Company jointly filing a set of in-service criteria prior to the start of construction of this project.

**Interconnection**

The final cost of interconnecting a new generating facility is not known until the RTO/ISO generator interconnector process is complete. Interconnection studies provide information about how the system will handle the level of proposed new generation. For example, in Case No. EA-2019-0021 regarding the Brickyard Hills wind farm, the project had not completed the

interconnection process. The final level of interconnection costs was at a point where Ameren Missouri decided to walk away from the project.

In this case Ameren Missouri is utilizing the Generating Facility Replacement process outlined in MISO's Open Access Transmission Tariff, Attachment X Generator Interconnection Procedures. Doing so allows Ameren Missouri to utilize the existing interconnection rights of the Meramec Energy Center steam units. A Replacement Impact Study, a Reliability Assessment Study, and if required by MISO, a Facilities Study, must be performed for Ameren Missouri's Generation Replacement Request.

Ameren Missouri has not yet received the Replacement Impact Study or Reliability Assessment Study results.[66] MISO has 180 calendar days to perform these studies from the date the application was submitted, which was on April 11, 2024. If there are adverse impacts or reliability concerns identified, the Interconnection customer then has 30 calendar days to decide to proceed or withdraw. If needed, the MISO has 90 calendar days to perform an Interconnection Facility Study following the steps previously discussed. The last step of the process allows MISO 30 calendar days to tender a Generator Interconnection Agreement ("GIA") after the final Facility Study report is provided to the Interconnection customer.[67]

Concerning interconnection costs, Staff recommends the Commission condition the approval of this CCN as follows: Ameren Missouri shall provide Staff the completed Replacement Impact Study, Reliability Assessment Study, and if required by MISO, a Facilities Study. If the results of the required study materially change the total cost of the project by increasing total interconnection costs more than 15% above modeled interconnection costs, Ameren Missouri shall notify the Commission by a filing in this case.

**Operations**

One of the main reasons that Ameren Missouri states that the proposed project is necessary is two recent severe winter storms, conditions which are reasonably expected to recur over time

[66] EA-2024-0237 Ameren Missouri Response to Staff Data Request No. 0021.
[67] EA-2024-0237 Ameren Missouri Response to Staff Data Request No. 0021.

and which both threaten system reliability and create significant exposure to energy markets beyond the Company's historical market exposure.[68]

While this project may be beneficial during emergency times, it can also provide generation at any time during the year when market prices are such that it is economical to operate the unit or to use the unit to provide ancillary services into the market. Staff is concerned that the language used by Ameren Missouri in this case to illustrate need is based largely on demand. While demand overall is a need driver, Staff is unaware of a reason that it would not be prudent for Ameren Missouri to bid the unit for dispatch by MISO for energy in the Day-ahead and Real-time markets, and for the provision of any applicable ancillary services. Staff's understanding is that Ameren Missouri's intent[69] is to submit a Generation Offer for the proposed project in the Day-ahead and Real-time markets for each operating day; therefore, Staff recommends the Commission include a condition that Ameren Missouri notify Staff if Ameren Missouri changes the operations from being economically dispatched in the Day-ahead and Real-time Markets.

**Construction Reports**

As with most any construction project, there are required permits that must be obtained in order to go forward or perhaps complete the project. The Permits as well as the anticipated timeline for the proposed project are shown below[70].

[68] EA-2024-0237 Application Page 5.
[69] EA-2024-0237 Ameren Missouri Response to Staff Data Request No. 0037.
[70] EA-2024-0237 Ameren Missouri Response to Staff Data Request No. 0024.

| Agency | Permit or Regulatory Scope | Anticipated Due Date Assumes a Construction Start of July 2026 |
|---|---|---|
| Missouri Department of Natural Resources (MoDNR) | Spill Prevention, Containment, and Countermeasure Plan (SPCC) | July 2026 |
| EPA – Regional Administrator and County | Facility Response Plan | July 2026 |
| Federal Aviation Administration (FAA) | Use of Temporary Construction Crane | TBD if Required |
| Federal Aviation Administration (FAA) | Obstruction Evaluation For Permanent Structures | TBD if Required |
| Missouri Department of Natural Resources (MoDNR) | Land Disturbance | 60 Days Prior to Construction |
| St. Louis County / Missouri Department of Natural Resources (MoDNR) | Section 5 Construction Air Permit | December 2024 |
| St. Louis County / Missouri Department of Natural Resources (MoDNR) | Part 70 (Title V) Operating Air Permit | November 2028 |
| Missouri Department of Natural Resources (MoDNR) | Stormwater Pollution Prevention Plan (SWPPP) | 60 Days Prior to Construction |
| Missouri Department of Natural Resources (MoDNR) | National Pollutant Discharge Elimination System Permit (NPDES) | Revision Only – July 2026 |
| Missouri Department of Natural Resources (MoDNR) | National Pollutant Discharge Elimination System Permit (NPDES) – Construction Permit for Basin | Not Required for this Project |
| Missouri Department of Transportation (MoDOT) | Highway Permits | TBD if Required |
| Missouri Department of Natural Resources (MoDNR) | Underground Storage Tank (UST) | TBD if Required |
| Missouri Department of Agriculture | Above Ground Storage Tank | TBD if Required |
| Midcontinent Independent System Operator (MISO) | Generator Interconnection Agreement | February 2027 |
| St. Louis County Department of Transportation and Public Works | Commercial Building Permit | March 2026 |
| St. Louis County Department of Transportation and Public Works | Land Disturbance Permit | 90 Days Prior to Construction |
| St. Louis County Department of Transportation and Public Works | Special Use Permit(s) | TBD if Required |
| Mehlville Fire Department | Fire Permit | July 2026 |
| | All other permits | TBD if Required |

Any delay in acquiring the required permits may impact the timeline of the project. Staff recommends the Commission condition any approval of the current CCN with a condition requiring quarterly reporting of progress of the construction. This report shall include, but not be limited to, quarterly progress reports on permitting, plans, specifications, and construction progress for the project be included in the CCN.

**Combustion Turbine Generator ("CTG") Winter Operations**

Combustion turbines may have emission limitation or operating permits that limit the amount of emissions during times of the year. Combustion turbine tuning is necessary to keep operating parameters in an acceptable range. These operating parameters may include:

- Fuel pressure and flow
- Air mass flow
- Compressor inlet guide vane position
- Compressor bypass valve position
- Compressor outlet pressure
- Turbine exhaust pressure
- Turbine exhaust temperature and temperature spread
- Turbine exhaust outlet O2, CO and NOx
- Combustion vibration

Extreme weather events in winter may include longer periods of colder temperatures. Colder air is denser which may impact the emissions of the unit or may impact the unit such that it cannot operate.

Staff asked Ameren Missouri for its CTG tuning procedure in Staff Data Request No. 0015.1. In its response, Ameren Missouri stated:

> Ameren Missouri does not have a procedure for tuning of CTGs. Historically, our CTG fleet has operated primarily for summer peak load conditions, and we have not needed to perform tuning. As our dual fuel sites (such as Castle Bluff) are developed, and winter operation of these sites becomes part of our generation profile, we will work with the CTG Original Equipment Manufacturer ("OEM") to determine the need for seasonal tuning.

Ameren Missouri represents the Castle Bluff Project is necessary for capacity during the extreme weather events (i.e. situations in which there may be longer periods of extreme cold weather paired with situations in which there may be low pipeline pressure and/or low fuel availability). However, Ameren Missouri does not intend to tune the generators for winter operations until winter operations become part of their generation profile. This seems to imply that Ameren Missouri won't do anything with regard to tuning those units until those units run in winter.

Staff's concern does not solely apply to Castle Bluff.

> Ameren Missouri has restored oil-fired backup capabilities at its Peno Creek and Kinmundy Energy Centers to ensure those units can operate under extreme weather conditions when supplies of natural gas may be constrained, adding an estimated 47 MW and 40 MW, respectively, to the Company's winter accredited capacity. The Company is also in the process of adding oil-firing capability at its Audrain Energy Center, adding an estimated 312 MW of winter accredited capacity, with an expected completion of late 2026.[71]

The modifications to the Missouri-located CTG units was to contribute winter capacity requirements, and in doing so may be able to contribute to capacity requirements during extreme weather events.

Staff is aware of units in the Midwest region that were not able to operate during Winter Storm Uri due in part because they did not have testing and tuning done on fuel oil in winter. It is rather disconcerting that Ameren Missouri is saying we need these because of the extreme weather events that typically happen in the winter but Ameren Missouri doesn't have policies or procedures in place to determine if tuning is necessary and perhaps won't until those units have run in winter. Staff recommends the Commission condition any CCN granted in this proceeding on Ameren Missouri's providing all cold weather readiness reporting for these units, and developing and implementing a policy to determine if tuning is necessary and providing that policy to Staff. Staff recommends the Commission condition any CCN granted in this proceeding on Ameren Missouri seeking and obtaining an Operating Air Permit[72] that allows for tuning on both fuels.

[71] EA-2024-0237 Matt Michels Direct Page 8 Lines 7 - 12.
[72] Ameren Missouri will be issued an Operating Air Permit by Missouri Department of Natural Resources and/or St. Louis County.

In Summary, Staff recommends the Commission condition any CCN granted in this case on the following:

- Ameren Missouri shall provide Staff the completed Replacement Impact Study, Reliability Assessment Study, and if required by MISO, Facilities Study. If the results of the required study materially change the total cost of the project by increasing total interconnection costs more than 15% above modeled interconnection costs, Ameren Missouri shall notify the Commission by a filing in this case.
- Staff and the Company filing a set of in-service criteria prior to the start of construction of this project.
- Ameren Missouri shall notify Staff if Ameren Missouri changes the operations from being economically dispatched in the Day-ahead and Real-time Markets
- Staff recommends the Commission condition any approval of the current CCN with a condition requiring quarterly reporting of progress of the construction. This report shall include, but not be limited to quarterly progress reports on permitting, plans, specifications, and construction progress for the project be included in the CCN.
- Ameren Missouri shall provide all cold weather readiness reporting for these units, and develop and implement a policy to determine if tuning is necessary and provide that policy to Staff.
- Ameren Missouri's operating air permit shall allow for tuning on both fuels.
- Ameren Missouri shall submit an overview of its plans for restoration of safe and adequate service after significant, unplanned/forced outages ninety (90) days prior to the time when the Castle Bluff Project will be placed in-service.

*Staff Witness: Shawn E. Lange, PE*

## IV. REQUEST FOR CONSTRUCTION ACCOUNTING

Staff recommends that the Commission deny Ameren's request to reflect construction accounting for the Castle Bluff Project. Construction accounting would allow the Company to continue to accrue Accumulated Funds Used During Construction ("AFUDC") and to defer the depreciation expense from the time the plant is in service to when the plant is included in rates.

At the beginning of a construction project, an electric utility is allowed to accrue carrying costs, or interest, according to a specified formula enumerated in the USOA, Electric Plant Instructions, Paragraph 17. The carrying costs are referred to as AFUDC and are based on a formula that considers the capital structure using the utility's amount of outstanding Construction work in progress (CWIP), short-term and long-term debt, and equity. The cost of debt and equity is also part of this calculation. The resulting carrying costs from this formula are capitalized to the account and added to the CWIP balance as any other cost of construction. The purpose of AFUDC is to compensate the utility for its cost of money, obtained from both debt holders and shareholders, while an asset is being constructed. AFUDC is a deferred return of construction costs while the project is under construction. Utilities are allowed to accrue for AFUDC until the time the plant addition goes into service and recover those costs over the life of the plant like all other costs relating to the construction project. Under construction accounting once the project is completed and dedicated to utility service, AFUDC ceases to be accrued.

A utility's cost of service related to plant-in-service consists of two parts: a return of investment (depreciation), and a return on investment (Rate of Return). Due to the regulatory process, there is a period of time between the completion of construction of an asset and the recovery of the return of and return on utility plant in service through a rate case. All other things being equal, the utility will realize an earnings shortfall related to the specific asset in this time period. The use of construction accounting attempts to "bridge the gap" in that time period after construction is complete but before construction costs are reflected in the cost of service through new rates, and eliminates the earnings shortfall described above. Once an asset's construction is completed, the utility is required to depreciate that asset to account for the ongoing reduction of useful life and return the plant investment to investors and shareholders. Under continuation of construction accounting, the utility is allowed to accrue a regulatory asset for the exact amount of the depreciation. The utility also accrues a carrying cost on the balance of the asset as a regulatory

asset, typically at the same rate as AFUDC. Both of these accruals cease on the effective date of new rates that reflect the return of and return on (depreciation and return on investment) the plant-in-service in question. If Ameren Missouri could time its rate case perfectly with the in-service dates of its major construction projects, there would never be a need for construction accounting. Ameren Missouri's request for construction accounting is essentially intended to make the Company whole for this imperfect timing.

The resulting regulatory asset is usually amortized to expense in the cost of service over a period of time to be recovered in rates ratably, generally over the life of the asset. However, this mitigation does not come without a cost to customers; under continuation of construction accounting, each day the implementation of new rates is delayed additional depreciation and carrying costs will be accrued and potentially recovered through rates. In other words, while it may appear that the delay of a rate increase would benefit customers, in fact, those same customers will be financing the delay.

Starting on page 4 and continuing on page 5 of Ameren Missouri witness Mitchell J. Lansford's Direct Testimony he cites several previous cases as examples of the Commission granting construction accounting. Staff has agreed to construction accounting in the context of stipulations and agreements under different circumstances and under different terms and conditions than what Ameren Missouri is proposing in this application. For example, in Case No. ER-2010-0036, the *First Nonunanimous Stipulation and Agreement* which was approved by the Commission allowed AmerenUE to defer the depreciation expense of the Sioux scrubbers "during the period commencing when the costs of the Sioux scrubbers are booked to plant-in-service and ending the earlier of; (a) the effective date of new rates in AmerenUE' s next general rate proceeding or (b) January 1, 2012."

Also, in Case No. ER-2010-0356, the Stipulation and Agreement/Proposed Procedural Schedules the signatories agreed to the following:

> **Construction Accounting** – The Signatory Parties agree that GMO should be allowed to treat the Iatan 2 project under "Construction Accounting" to the effective date of new rates in the 2010-11 Rate Case. Construction Accounting will be the same treatment for expenditures and credits consistent with the treatment for Iatan 2 prior to the Iatan 2's commercial in service operation date. Construction Accounting will include treatment for test power and its valuation consistent with the treatment of such power prior to Iatan 2's commercial in service operation date with the exception

> that such power valuation will include off-system sales. The AFUDC rate that will be used during this period will consistent with the AFUDC rate calculation in Paragraph III.B.1.g. of the KCPL Experimental Alternative Regulatory Plan, as amended by the July 26, 2005 Response to Order Directing Filing of the Signatory Parties in Case No. EO-2005-0329, [i.e., a 2.5% or 250 basis point reduction in the equity portion of the AFUDC rate (or a construction accounting equity costs rate of 7.7%)]. See July 28, 2005 Report and Order in Case No. EO-2005-0329, page 18. The amortization of the amounts deferred under this Construction Accounting method will be determined by the Commission in the 2010-11 Rate Case. The non-GMO Signatory Parties reserve the right to contest amounts deferred under this Paragraph, not Construction Accounting itself, in the event that any non-GMO Signatory Party contends imprudence, unreasonableness, or no benefit to customers of costs relating to the construction of Iatan 2. Such challenge would be limited to the amount of the costs deferred related to the quantification of impudence, unreasonableness, or no benefit to customers claimed by the challenging party.

The Non-Unanimous Stipulation and Agreement in Case No ER-2010-0130 also had the provision that the carrying costs to be applied for construction account would reflect a 7.75% return on equity As can be seen in these examples, Staff has agreed to construction accounting in the past; however, other terms and conditions were agreed to other than what Ameren is proposing in this application, such as a reduction in the return on equity to be used for carrying costs and a date in which the construction accounting would end if the Company did not timely file a rate case.

Gas fired generating plant does not qualify for Plant-In Service Accounting (PSIA). Per 393.1400 (3), "all rate base additions, except rate-base additions for new coal-fired generating units, new nuclear generating units, new natural gas units…." qualify for PISA treatment. PISA provides the utilities an incentive to invest in renewable generating plant and grid modernization projects. By requesting construction accounting Ameren is asking for an incentive to build a gas fired generation plant.

Staff does not recommend the use of construction accounting because Ameren Missouri does not need an incentive to construct this project. Per the Direct Testimony of Ameren Missouri witnesses Steven M. Wills[73] and Matt Michels[74] Ameren Missouri needs to build the Castle Bluffs gas-fired generating unit due to the closure of Ameren Missouri's coal-fired generating plants to

[73] Pages 3 - 4 Direct Testimony of Steven M. Wills.
[74] Pages 3 - 13 Direct Testimony of Matt Michels.

address reliability concerns associated with extreme winter weather events. Ameren Missouri also lists three other reasons the project is needed in its Application in the case. Ameren Missouri needs to complete the project in order to provide safe and adequate service to the ratepayers. Ameren Missouri should not have to have an incentive, such as construction accounting, to do what is needed to do.

If the Commission were to decide that the use of construction accounting was appropriate Staff would recommend that the Commission order a lower ROE, such as 250 basis point reduction in the equity portion of the AFUDC rate and establish an ending date of no later than March 31, 2028 for the deferring of the AFUDC and depreciation.

*Staff Witness: Kimberly K. Bolin*

Appendix 1 - Staff Credentials

Appendix 2 - Combustion Turbine Unit In-Service Test Criteria

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

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|---|---|---|
| In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and Certificates of Public Convenience and Necessity Authorizing it to Construct a Simple Cycle Natural Gas General Facility | ) ) ) ) ) ) | Case No. EA-2024-0237 |

**AFFIDAVIT OF KIMBERLY K. BOLIN**

STATE OF MISSOURI )
) ss.
COUNTY OF COLE )

**COMES NOW KIMBERLY K. BOLIN,** and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff's Report*; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Kimberly K. Bolin
**KIMBERLY K. BOLIN**

**JURAT**

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 12th day of September 2024.

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: July 18, 2027
Commission Number: 15207377

Dianna L. Vaught
Notary Public

**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 Certificates of Public Convenience and Necessity Authorizing it to Construct a Simple Cycle Natural Gas General Facility | ) ) ) ) ) ) | Case No. EA-2024-0237 |

**AFFIDAVIT OF MALACHI BOWMAN**

STATE OF MISSOURI )
) ss.
COUNTY OF COLE )

**COMES NOW MALACHI BOWMAN,** and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

**MALACHI BOWMAN**

**JURAT**

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 12th day of September 2024.

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: July 18, 2027
Commission Number: 15207377

Notary Public

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

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| In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and Certificates of Public Convenience and Necessity Authorizing it to Construct a Simple Cycle Natural Gas General Facility | ) ) ) ) ) ) | Case No. EA-2024-0237 |

**AFFIDAVIT OF FRANCISCO DEL POZO**

STATE OF MISSOURI )
) ss.
COUNTY OF COLE )

**COMES NOW FRANCISCO DEL POZO,** and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

**FRANCISCO DEL POZO**

**JURAT**

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 12th day of September 2024.

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: July 18, 2027
Commission Number: 15207377

Diana L. Vaught
Notary Public

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

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| In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and Certificates of Public Convenience and Necessity Authorizing it to Construct a Simple Cycle Natural Gas General Facility | ) ) ) ) ) ) | Case No. EA-2024-0237 |

**AFFIDAVIT OF SHAWN E. LANGE, PE**

STATE OF MISSOURI )
) ss.
COUNTY OF COLE )

**COMES NOW SHAWN E. LANGE, PE,** and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Shawn E. Lange
**SHAWN E. LANGE, PE**

**JURAT**

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 12th day of September 2024.

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: July 18, 2027
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Dianna L. Vaught
Notary Public

**BEFORE THE PUBLIC SERVICE COMMISSION**

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**AFFIDAVIT OF J LUEBBERT**

STATE OF MISSOURI )
) ss.
COUNTY OF COLE )

**COMES NOW J LUEBBERT,** and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

**J LUEBBERT**

**JURAT**

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 12th day of September 2024.

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: July 18, 2027
Commission Number: 15207377

Notary Public

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

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| In the Matter of the Application of Union Electric Company d/b/a Ameren Missouri for Permission and Approval and Certificates of Public Convenience and Necessity Authorizing it to Construct a Simple Cycle Natural Gas General Facility | ) ) ) ) ) ) | Case No. EA-2024-0237 |

**AFFIDAVIT OF BRODRICK NIEMEIER**

STATE OF MISSOURI )
) ss.
COUNTY OF COLE )

**COMES NOW BRODRICK NIEMEIER,** and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Brodrick Niemeier
**BRODRICK NIEMEIER**

**JURAT**

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 12th day of September 2024.

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: July 18, 2027
Commission Number: 15207377

Dianna L. Vaught
Notary Public

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

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**AFFIDAVIT OF MARINA STEVER**

STATE OF MISSOURI )
) ss.
COUNTY OF COLE )

**COMES NOW MARINA STEVER,** and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff's Report*; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

**MARINA STEVER**

**JURAT**

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 12th day of September 2024.

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: July 18, 2027
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Notary Public

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

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**AFFIDAVIT OF SEOUNG JOUN WON, PhD**

STATE OF MISSOURI )
) ss.
COUNTY OF COLE )

**COMES NOW SEOUNG JOUN WON, PhD,** and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Report*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

**SEOUNG JOUN WON, PhD**

**JURAT**

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 13th day of September 2024.

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: July 18, 2027
Commission Number: 15207377

Notary Public