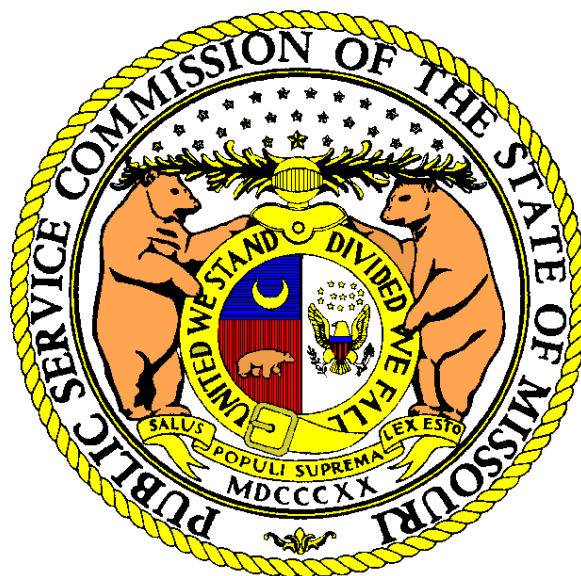


MISSOURI PUBLIC SERVICE COMMISSION

STAFF'S INITIAL INVESTIGATION REPORT



**RUSH ISLAND ENERGY CENTER
BELONGING TO UNION ELECTRIC COMPANY,
d/b/a AMEREN MISSOURI**

CASE NO. EO-2022-0215

*Jefferson City, Missouri
April 2022*

**** Denotes Confidential Information ****

1 **STAFF’S INITIAL INVESTIGATION REPORT**
2 **OF**
3 **RUSH ISLAND ENERGY CENTER**
4 **BELONGING TO UNION ELECTRIC COMPANY,**
5 **d/b/a AMEREN MISSOURI**

6 **Case No. EO-2022-0215**

7 **Executive Summary:**

8 On February 14, 2022, Staff filed a motion requesting the Commission to open an investigatory
9 docket related to matters concerning the potential early retirement of the Rush Island Energy
10 Center (“Rush Island”). In its *Motion to Open Investigation into Matters Concerning the*
11 *Rush Island Energy Center belonging to Union Electric Company, doing business as*
12 *Ameren Missouri*, Staff outlined its proposed scope to include:

- 13 • The impact of the retirement of Rush Island;
- 14 • Ameren Missouri’s plans, if any, to mitigate the effects of that retirement;
- 15 • The prudence of Ameren Missouri’s actions and decisions with respect to
16 Rush Island; and
- 17 • An accounting of all expenses suffered by the ratepayers, or likely to be
18 suffered by the ratepayers, due to any imprudence by Ameren Missouri.

19 The Commission ordered Staff to file an initial report regarding its investigation no later than
20 April 15, 2022. This report is Staff’s initial investigation report regarding the potential early
21 retirement of Rush Island and focuses on the impact of the early retirement of Rush Island.

22 **Introduction:**

23 Ameren Missouri (“Company”) has five traditional baseload generation sites. Rush Island,
24 one of four coal-fired power plants, is located in Jefferson County, Missouri. The other three
25 coal-fired power plants are Labadie (Franklin County, Mo.), Sioux (St. Charles County, Mo),

1 and Meramec (St. Louis County, Mo.)¹. Meramec is scheduled for retirement in 2022².
2 The last traditional baseload unit is Callaway, a nuclear generating plant located in Callaway
3 County, Mo.

4 Rush Island began operations in 1976 and has two 600-MW generating units, which burn
5 Sub Bituminous coal. Around 150 employees currently work for the Company at Rush Island.
6 Due to its incremental carbon emissions reduction goals by the years 2030, 2040, and 2050,
7 Ameren Missouri had initially scheduled Rush Island for retirement in the year 2039³.
8 In December 2021, however, Ameren Missouri announced its intention to retire Rush Island
9 in 2024.

10 **Clean Air Act Litigation:**

11 In 2011, the U.S. Environmental Protection Agency (“EPA”), represented by the
12 U.S. Department of Justice (“DOJ”), filed a lawsuit against Ameren, alleging that the Company
13 installed boiler equipment that raised emissions of sulfur dioxide without obtaining applicable
14 permits.⁴ The United States, on behalf of Environmental Protection Agency, brought action
15 against the Company, alleging it violated the CAA, the Missouri State Implementation Plan
16 (“SIP”), and the Company’s Title V permit when it undertook major modifications at its
17 coal-fired power plant without obtaining requisite permits.

18 Prevention of Significant Deterioration (“PSD”) is a Clean Air Act program that allows for
19 growth, without significant deterioration of air quality, in areas that are deemed to be clean with
20 regard to the six criteria air pollutants per the National Ambient Air Quality Standards
21 (“NAAQS”). The six criteria air pollutants as set by the EPA through NAAQS (required by the
22 CAA) are ground-level ozone, particulate matter, lead, carbon monoxide, nitrogen dioxide, and
23 sulfur dioxide. States are required to recommend to the EPA area designations in their

¹ Ameren Missouri—retrieved on 03/29/2022 from [Energy Centers - Ameren Missouri](#).

² The U.S. Energy Information Administration-- retrieved on 03/29/2022 from [electric generating capacity retirements in 2022](#).

³ Ameren Missouri 2020 IRP.

⁴ Case Number 4:2011cv00077- US District Court for the Eastern District of Missouri (Plaintiff: The United States of America- Defendant: Ameren Missouri).

1 respective jurisdictions with regard to criteria pollutants as “attainment,” “non-attainment,” and
2 “unclassifiable” of NAAQS.

3 If an area’s level of air pollution concentration is above a threshold set by the EPA for any of
4 the criteria air pollutants, that area should be classified as *non-attainment* with respect to that
5 specific criteria air pollutant (e.g., sulfur dioxide). If there is a sufficient amount of data
6 suggesting that the criteria air pollution concentrations are below the EPA’s thresholds, the area
7 should be classified as attainment of NAAQS for the specified air pollutants. If there is not
8 enough data and evidence to designate an area as either attainment or non-attainment, the area
9 should be designated as “unclassifiable.” As required by the CAA, a PSD demonstration/permit
10 is required for new major sources or major modifications at existing sources for pollutants
11 where the area in which the source is located is in attainment or unclassifiable with the NAAQS.
12 The CAA and Missouri SIP have offered slightly different definitions for “major modifications”
13 as it relates to PSD requirements, with the CAA statutory definition being more stringent, it
14 supersedes Missouri SIP’s definition.

15 In January 2017, a U.S. district court judge ruled that the Company violated the Clean Air Act
16 when it made upgrades to its Rush Island Power Plant.⁵ The Court of Appeals, Smith, Chief
17 Judge, held that: “(1) only federal CAA Prevention of Significant Deterioration (PSD)
18 regulation defining “major modification” applied to power company’s project, and definition
19 of “modification” in Missouri’s SIP did not apply.”

20 In 2019, the U.S. District Court for the Eastern District of Missouri ordered Ameren to obtain
21 applicable permits, install scrubbers and meet standards for sulfur dioxide emissions.⁶

22 MEMORANDUM OPINION & ORDER: IT IS HEREBY ORDERED
23 THAT Defendant Ameren shall apply for a Prevention of Significant
24 Deterioration permit for the Rush Island Energy Center within ninety
25 days of the date of this Order. Ameren must propose wet flue-gas
26 desulfurization as the technology-basis for its Best Available Control
27 Technology [BACT] proposal. IT IS FURTHER ORDERED THAT

⁵ Case Number 4:11 CV 77 RWS- US District Court for the Eastern District of Missouri (Plaintiff: The United States of America- Defendant: Ameren Missouri).

⁶ Case Number 4:11 CV 77 RWS- US District Court for the Eastern District of Missouri (Plaintiff: The United States of America- Defendant: Ameren Missouri). [11-077 - United States of America v. Ameren Missouri - Content Details - USCOURTS-moed-4_11-cv-00077-15 \(govinfo.gov\)](https://www.govinfo.gov/procurement/content/details/uscourts-moed-4_11-cv-00077-15).

1 Defendant Ameren shall operate Rush Island Units 1 and 2 in compliance
2 with an emissions limit that is no less stringent than 0.05lb SO₂/mm
3 BTU on a thirty-day rolling average within four and one half years of the
4 date of this Order. IT IS FURTHER ORDERED THAT Defendant
5 Ameren shall install a pollution control technology at least as effective
6 as dry sorbent injection at the Labadie Energy Center within three years
7 from the date of this Order. That technology shall remain in use at
8 Labadie until Ameren has achieved emissions reductions totaling the
9 same amount as the excess emissions from Rush Island, as defined in
10 this Order, through the time Ameren installs BACT at Rush Island. IT IS
11 FURTHER ORDERED THAT I will retain jurisdiction over this case
12 until Ameren has fully implemented the remedies set forth in this Order.
13 Signed by District Judge Rodney W. Sippel on 9/30/19. (ARL).

14 In 2021, the 8th Circuit U.S. Court of Appeals upheld the above ruling in part, concluding
15 “Accordingly, we affirm the judgment of the district court in all respects except as to the
16 injunctive relief entered against Ameren’s Labadie plant. We remand for further proceedings
17 consistent with this opinion.”⁷

18 On December 14, 2021, through a filing with the U.S. District Court for the Eastern District of
19 Missouri, Ameren Missouri announced its plan to retire the Rush Island Energy Center in 2024,
20 which is 15 years earlier than previously planned (i.e., 2039), requesting the Court to “[f]ind
21 that Ameren’s retirement of Rush Island in lieu of installing an FGD [Flue Gas Desulfurization]
22 complies with the SO₂ emissions limit required by the Remedy Ruling, with Rush Island’s
23 specific retirement date to be determined pursuant to MISO [Midcontinent Independent System
24 Operator] assessment.”⁸

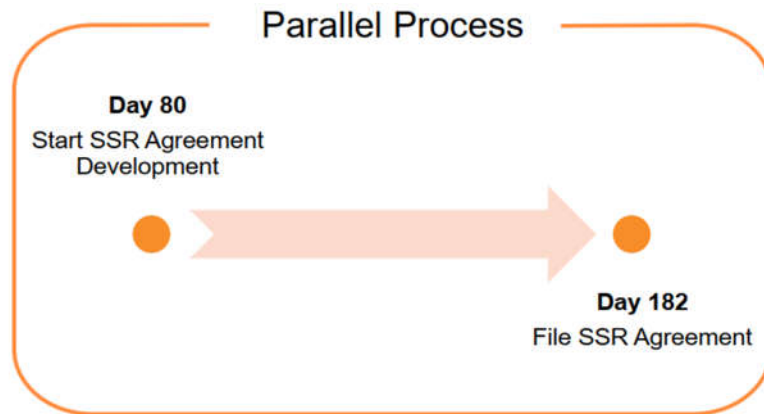
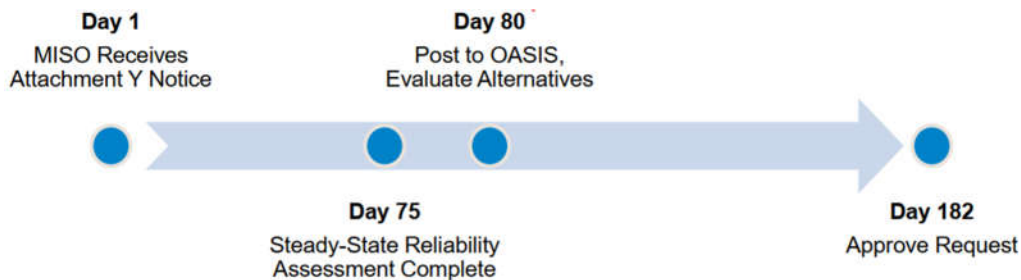
25 Ameren Missouri, in its December 14, 2021 filing with the Court, proposed that a specific
26 retirement date (to be no later than March 30, 2024) be decided when MISO’s reliability
27 assessment is completed in January 2022. The results of the MISO’s study, their interpretations,
28 and implications regarding the retirement of Rush Island are further discussed in detail in the
29 following section.

⁷ United States vs. Ameren Missouri, No. 19-3220 (8th Cir. 2021).

⁸ Civil Action No. 4:11-cv-00077-RWS- US District Court for the Eastern District of Missouri (Plaintiff: The United States of America; Plaintiff-intervener: Sierra Club- Defendant: Ameren Missouri).

MISO Generation Retirement Process:

MISO's retirement process, Attachment Y, requires a 26-week notice period (182 days). During this 26-week notice period, MISO will conduct a study ("Attachment Y Study") to determine whether all or a portion of the resource's capacity is necessary to maintain system reliability, such that system support resource ("SSR")⁹ status is justified. If so, and if MISO cannot identify an SSR alternative that can be implemented prior to the retirement or suspension effective date, then MISO and the market participant shall enter into an agreement to ensure that the resource continues to operate, as needed.¹⁰ The figures below show the MISO Attachment Y timeline:



⁹ Midcontinent Independent System Operator, Inc.'s (MISO) Open Access Transmission, Energy and Operating Reserve Markets Tariff (Tariff) defines SSR Units as "Generation Resources or Synchronous Condenser Units (SCUs) that have been identified in Attachment Y – Notification to this Tariff and are required by the Transmission Provider for reliability purposes, to be operated in accordance with the procedures described in Section 38.2.7 of this Tariff." MISO FERC Electric Tariff, Module A, § 1.S "System Support Resource (SSR)" (39.0.0).

¹⁰ FERC Docket No. EL14-34-003, et al. ORDER ON REHEARING AND CLARIFICATION AND ORDER ON REFUND REPORT (Issued September 22, 2016) Pg. 2 Paragraph 2.

1 Ameren Missouri reached agreement, with the DOJ and Sierra Club regarding the form of, and
2 language included in, the Attachment Y¹¹ for the Rush Island Energy Center that Ameren was
3 to file with MISO on March 1, 2022 or at a date specified by the court. The Attachment Y was
4 to specifically look at impacts on the system of suspending use of all or portions of Rush Island
5 units 1 and 2 on September 1, 2022.

6 If MISO concludes that there are no alternatives to the designation of Rush Island as an SSR,
7 Ameren requested that MISO further consider certain operating criteria or operating limitations
8 to minimize Rush Island operations to the greatest extent practicable in accordance with the
9 MISO tariff.¹² Specifically, Ameren requested MISO consider operation of:

- 10 • One of Rush Island's two units;
- 11 • One or both of Rush Island's units during only certain times, such as
12 peak winter or summer months and emergencies;
- 13 • One or both of Rush Island's units at less than full load; and
- 14 • One or both Rush Island units at minimum load necessary for stable
15 operations.

16 Although the Attachment Y results are not expected until mid-May, Staff has reviewed the
17 Attachment Y-2 study, which is further discussed in the following section.

18 **Attachment Y-2 Study:**

19 The MISO tariff describes a non-binding assessment called an Attachment Y-2 study.
20 An Attachment Y-2 filing leads to a non-binding determination from MISO as to whether the
21 generating asset is required for the reliability of the transmission system. With respect to
22 Rush Island, the underlying technical evaluations pursuant to both Attachment Y and

¹¹ Section 38.2.7 of MISO's Open Access Transmission, Energy, and Operating Reserve Markets Tariff

¹² Civil Action No. 4:11-cv-00077-RWS- US District Court for the Eastern District of Missouri (Plaintiff: The United States of America; Plaintiff-intervener: Sierra Club- Defendant: Ameren Missouri) NOTICE OF FILING AGREED FORM OF AMEREN'S ATTACHMENT Y.

1 Attachment Y-2 should be similar, if not identical.¹³ ** [REDACTED]

2 [REDACTED] **14

3 The Attachment Y-2 process is initiated by a request, made by a Load Serving Entity (“LSE”)
4 that the Transmission Provider conduct a study of the reliability impacts related to a potential
5 change of status of either a Generation Resource or a Synchronous Condenser Unit (“SCU”).
6 The LSE may request specific units of a Generation Resource be studied rather than the entire
7 resource. Attachment Y-2 studies include steady state analysis and a stability analyses with and
8 without the unit(s) that the study is evaluating.

9 Steady State analysis typically evaluate substation voltage and thermal loading of circuits under
10 system intact and contingent operations. Contingency analysis typically is performed on before
11 and after cases. The before and after results are compared to determine if there were any criteria
12 violations due to the unit(s) change of status.

13 MISO’s stability analysis will examine the impact of the Retiring Generating Facility by
14 evaluating local and regional stability performance on the MISO transmission system in the
15 bench, prior to operating status change, and study, post operating status change, cases. Fault
16 analysis will be performed on bench and study cases for the fault lists as specified by Ameren.
17 The results will be compared to determine if there are any criteria violations due to the unit(s)
18 change of status.

19 ** [REDACTED]

- 20 [REDACTED]
- 21 • [REDACTED]
- 22 [REDACTED]
- 23 [REDACTED]
- 24 [REDACTED]

¹³ Civil Action No. 4:11-cv-00077-RWS- US District Court for the Eastern District of Missouri (Plaintiff: The United States of America; Plaintiff-intervener: Sierra Club- Defendant: Ameren Missouri) AMEREN’S MOTION TO MODIFY REMEDY RULING Pg. 3 footnote 1.

¹⁴ Ameren Missouri Response to Staff Data Request No. 0002, mpac 0002 attach ammo_rush_island_att-y2_study_report_ceii_2022-01-31 conf.pdf Pg. ii.

- 1 • [REDACTED]
- 2 [REDACTED]
- 3 • [REDACTED]
- 4 [REDACTED]
- 5 • [REDACTED]
- 6 [REDACTED]
- 7 [REDACTED]
- 8 [REDACTED]
- 9 [REDACTED]
- 10 • [REDACTED]
- 11 [REDACTED]
- 12 [REDACTED]
- 13 • [REDACTED]
- 14 [REDACTED]
- 15 [REDACTED] **15

Attachment Y-2 Study Results:

- 17 ** [REDACTED]
- 18 [REDACTED]
- 19 [REDACTED]
- 20 [REDACTED] **16
- 21 ** [REDACTED]
- 22 [REDACTED]
- 23 [REDACTED]
- 24 [REDACTED]
- 25 [REDACTED]

¹⁵ Ameren Missouri Response to Staff Data Request No. 0002, mpsec 0002 attach ammo_rush_island_att-y2_study_report_ceii_2022-01-31 conf.pdf Pg. 18.

¹⁶ Ameren Missouri Response to Staff Data Request No. 0002, mpsec 0002 attach ammo_rush_island_att-y2_study_report_ceii_2022-01-31 conf.pdf Pg. ii.

1 [REDACTED]
2 [REDACTED]
3 [REDACTED]
4 [REDACTED]
5 [REDACTED] **17
6 ** [REDACTED]
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED] **18

Attachment Y-2 Study Concerns:

Ameren Missouri's concerns with the MISO's Attachment Y-2 study¹⁹ include:

- MISO's Attachment Y-2 study did not consider stability concerns when designating a unit as an SSR, even when the studied unit is needed to meet the stability requirements of the system.
- MISO's Attachment Y-2 study ignored the need for a mitigation project to meet system Transient Voltage Recovery, while acknowledging not meeting NERC TPL standard.
- MISO's Attachment Y-2 study did not use Local Planning Criteria when developing mitigations to identified reliability issues.
- MISO's Attachment Y-2 study was a limited study and was not comprehensive of the various sensitivities which could include higher load levels, Power flow bias across

¹⁷ Ameren Missouri Response to Staff Data Request No. 0002, mpsec 0002 attach ammo_rush_island_att-y2_study_report_ceii_2022-01-31 conf.pdf Pg. 20.

¹⁸ Ameren Missouri Response to Staff Data Request No. 0002, mpsec 0002 attach ammo_rush_island_att-y2_study_report_ceii_2022-01-31 conf.pdf Pg. 24.

¹⁹ Ameren Missouri Response to Staff Data Request No. 0003.

1 Ameren Missouri's system, different generation dispatch patterns and extreme
2 weather events.

- 3 • MISO's attachment Y-2 study did not consider any extreme contingencies in their
4 studies. For example loss of all lines in Right-Of-Way, loss of all generation at a plant,
5 loss of a substation etc. These contingencies will have to be considered as part of the
6 NERC TPL to ensure that these contingencies do not cause cascading outages that
7 could lead to system collapse.
- 8 • MISO's Attachment Y-2 and MTEP study dispatches generation in the 3+ year models
9 that have a prior Attachment Y filing. MISO suspends these units in the near-term
10 models and dispatches them in the out year models which could mask potential
11 reliability problems; MISO models as used by other Transmission Owners (TOs) have
12 Meramec units dispatched in the five (5) year out case. Meramec is scheduled to be
13 retired by December, 2022²⁰.
- 14 • MISO's Attachment Y-2 study did not consider the potential retirement of units outside
15 their territory even though the units have publicly announced of retirements such as
16 the Joppa units.

17 Ameren Missouri's biggest concern as related to Staff is that MISO did not consider Ameren
18 Missouri's LPC in the Y-2 study, for both the study scenarios and the mitigation measures.
19 MISO will include assessment of the LPC for the Attachment Y study.

20 **Future Transmission Projects due to the retirement of Rush Island 1 and 2:**

21 The MISO attachment Y-2 study highlighted several reliability issues on the Ameren Missouri
22 transmission system due to the retirement of Rush Island 1 and 2 that require mitigations.

23 Ameren Missouri has identified the following projects to mitigate the identified
24 reliability issues:²¹

- 25 • Installation of a capacitor bank -This project will help to alleviate unacceptable
26 voltages seen during the winter period and certain system operating conditions.
- 27 • Transformer replacement at Wildwood-This project will help to alleviate issues
28 leading to the Wildwood transformer becoming overloaded during winter months

²⁰ https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_6_06.

²¹ Ameren Missouri Response to Staff Data Request No. 0015.

1 under certain operating conditions. The only possible temporary mitigation is to reduce
2 Labadie generation by 125 MW.

- 3 • Bus tie position uprate at Rush Island-This project will mitigate a bus tie overload at
4 Rush Island, which occurs during the summer months. A possible temporary
5 mitigation is to re-dispatch greater than 192 MW of generation.
- 6 • Dynamic reactive source in the St. Louis metro area- This project will help to alleviate
7 issues that during the summer months, at times of air conditioning load, the system
8 does not meet the transient voltage recovery criteria²².

9 All the mitigation projects listed above need MISO approval. The timelines below start after
10 the MISO approval of the projects, assumed to be June 2022, and assume Rush Island units to
11 be offline:

- 12 • Ameren Missouri purports it will take approximately one (1) year to install the
13 capacitor bank.
- 14 • Ameren Missouri purports it will take approximately two (2) years to replace the
15 transformer at Wildwood.
- 16 • Ameren Missouri purports it will take approximately one (1) year to uprate the bus tie
17 at Rush Island.
- 18 • Ameren Missouri purports the installation of the dynamic reactive source will take
19 approximately 30 months.

20 ** [REDACTED]
21 [REDACTED]
22 [REDACTED]
23 [REDACTED]²³ [REDACTED]
24 [REDACTED] **

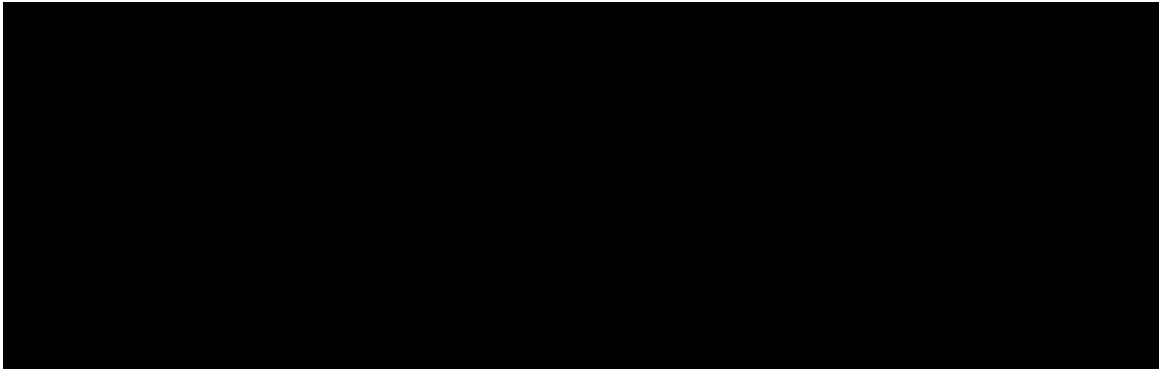
²² Transient Voltage Recovery is:

- Voltage that appears between the contacts of the circuit breaker after arc extinction during opening process while clearing a fault.
- The Rate of Rise of Recovery Voltage (RRRV) is defined as peak transient recovery voltage divided by the total time from zero voltage to peak voltage.
- Level of TRV and the RRRV are key factors in determining whether the fault can be cleared successfully. (<https://cigre-usnc.org/wp-content/uploads/2017/10/2-GOTF-Mark-McVey.pdf>).

²³ Ameren Missouri response to Staff Data Request No. 0009.

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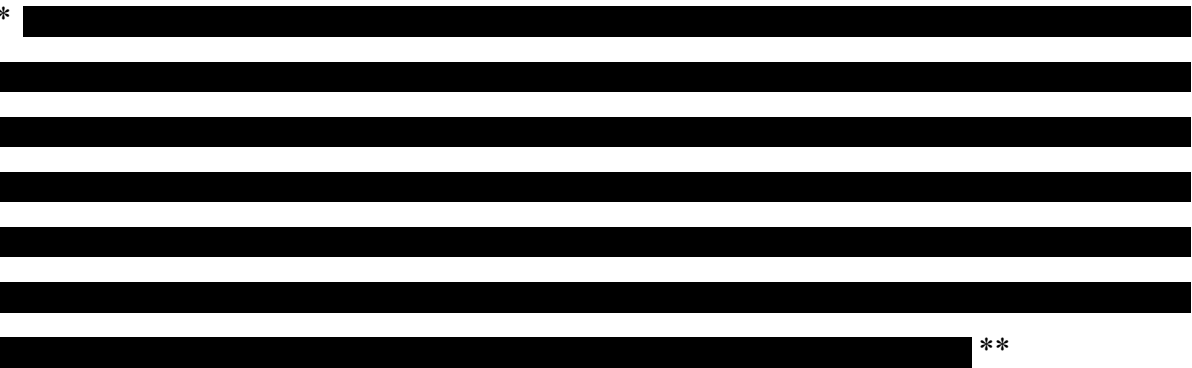
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In EO-2021-0021, Ameren Missouri's preferred plan includes energy efficiency and demand response programs, 5,400 MW of wind and solar generation by 2040, retirement of all Meramec units by the end of 2022, retirement of Sioux Energy Center at the end of 2028, retirement of two of the four units at Labadie Energy Center at the end of 2036, and retirement of Rush Island Energy Center at the end of 2039.²⁴

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Staff Investigation Next Steps:

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²⁴ EO-2021-0021 Ameren Missouri IRP Chapter 10, Pg. 26.

²⁵ Ameren Missouri Response to Staff Data Request No. 0002, mpse 0002 attach ammo_rush_island_att-
y2_study_report_ceii_2022-01-31 conf.pdf Pg. 20.

1 Ameren Missouri has an existing load reduction procedure governing its interactions with
2 MISO and any balancing authority. In response to data requests during the investigation into
3 impacts of Winter Storm Uri, Ameren Missouri noted the possibility to call for public appeals
4 for energy conservation and the potential to select customers for load shed in instances where
5 load reduction is required due to a predicted large area generation deficiency.²⁶ Staff continues
6 to recommend Ameren Missouri update its existing tariffs, including its Emergency Energy
7 Conservation Procedure, to cover curtailment situations other than fossil fuel shortages and
8 Missouri Energy Efficiency and Investment Act (“MEEIA”) programs.²⁷

9 ** [REDACTED]
10 [REDACTED]²⁸
11 [REDACTED]²⁹ [REDACTED]³⁰ [REDACTED]
12 [REDACTED]
13 [REDACTED] ** Based
14 on information provided by Ameren Missouri in Case No. ER-2021-0240, approximately
15 64 individual Ameren Missouri customers account for approximately 360 – 520 MW of load
16 coincident with Ameren Missouri’s monthly system peaks. Staff suggests that Ameren Missouri
17 begin discussions with these customers - ** [REDACTED]

18 [REDACTED]
19 [REDACTED]
20 [REDACTED]
21 [REDACTED]
22 [REDACTED]

²⁶ Response to Staff Data Request No. 0001 in AO-2021-0264. ** [REDACTED]
[REDACTED] **

²⁷ Staff Report in EO-2021-0358, Pg. 67.

²⁸ (1) Unplanned involuntary brownouts or blackouts (2) Implementation of involuntary brownouts or blackouts pursuant to a description of the sequence in which customers will be forced into outage, (3) Emergency shut off of willing customers, (4) Emergency voluntary curtailments, (5) Planned voluntary curtailments, and ** [REDACTED] **

²⁹ Brownout is a drop in the voltage levels in certain areas.

³⁰ Blackout is a total disruption of electrical services in an area.

1 [REDACTED] ** Further, Staff recommends that Ameren
2 Missouri examine its existing Missouri Energy Efficiency and Investment Act (“MEEIA”) Demand Response (“DR”) and load management programs, including, but not limited to
3 controllable thermostats, ** [REDACTED] **

4
5 On December 11, 2021, Ameren Missouri determined that its current preferred resource plan
6 was no longer appropriate and instead of costly updates to Rush Island, it should proceed to
7 retire Rush Island by a date to be determined by the Eastern District.³¹ 20 CSR 4240-22.080(12)
8 states in part that,

9 If, between triennial compliance filings, the utility’s business plan or
10 acquisition strategy becomes materially inconsistent with the preferred
11 resource plan, or if the utility determines that the preferred resource plan
12 or acquisition strategy is no longer appropriate... the utility, in writing,
13 shall notify the commission within sixty (60) days of the utility’s
14 determination and shall serve notice on all parties to the most recent
15 triennial compliance filing. The notification shall include a description
16 of all changes to the preferred plan and acquisition strategy, the impact
17 of each change on the present value of revenue requirement, and all other
18 performance measures specified in the last filing pursuant to 20 CSR
19 4240-22.080 and the rationale for each change.³²

20 The Company requested, and the Commission granted, a variance from the 60-day provision of
21 20 CSR 4240-22.080(12) to allow it until July 15, 2022, to file the information required by
22 20 CSR 4240-22.080(12).³³

23 Based on the MISO attachment Y study timelines, the steady-state reliability assessment will
24 be completed 75 days from when MISO receives the attachment Y notice. MISO has started
25 the study scope for the Attachment Y process on March 8, 2022 and a draft study
26 is currently expected May 13, 2022³⁴. Staff has requested the results of that study with
27 Staff Data Request No. 0003. The MISO Attachment Y study, the Court ruling, and Ameren

³¹ Case No. EE-2022-0192. Ameren Missouri’s Request for Variance and Waiver of 60-Day Notice Requirement.

³² EO-2018-0211 and EO-2022-0100 Staff Response to Public Counsel Motion Pg. 2.

³³ EO-2018-0211 and EO-2022-0100 Staff Response to Public Counsel Motion Pg. 2.

³⁴ Ameren Missouri Response to Staff Data Request No. 0001.

- 1 Missouri's filing and study showing all changes to its preferred plan may focus Staff's next
- 2 steps on its investigation.
- 3 Staff will continue to obtain and review information pertaining to the Rush Island generating
- 4 unit retirements and update the Commission of its findings.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Staff's Investigation of)
Matters Concerning the Rush Island Energy)
Center Belonging to Union Electric)
Company d/b/a Ameren Missouri)
File No. EO-2022-0215

AFFIDAVIT OF SAEID R. DINDARLOO, PhD, PE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW SAEID R. DINDARLOO, PhD, PE, and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Initial Investigation Report*; and that the same is true and correct according to his best knowledge and belief.

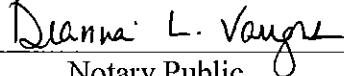
Further the Affiant sayeth not.



SAEID R. DINDARLOO, PhD, 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 15th day of April, 2022.



Notary Public

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: July 18, 2023
Commission Number: 15207377

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Staff's Investigation of)
Matters Concerning the Rush Island Energy)
Center Belonging to Union Electric) **File No. EO-2022-0215**
Company d/b/a Ameren Missouri)

AFFIDAVIT OF CLAIRE M. EUBANKS, PE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

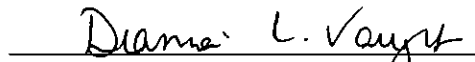
COMES NOW CLAIRE M. EUBANKS, PE, and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff's Initial Investigation Report*; and that the same is true and correct according to her best knowledge and belief.

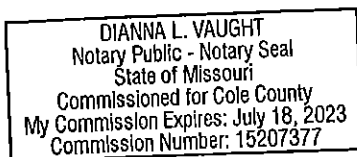
Further the Affiant sayeth not.


CLAIRE M. EUBANKS, 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 14th day of April, 2022.


Notary Public



BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Staff's Investigation of)
Matters Concerning the Rush Island Energy)
Center Belonging to Union Electric)
Company d/b/a Ameren Missouri)

File No. EO-2022-0215

AFFIDAVIT OF SARAH L.K. LANGE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

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

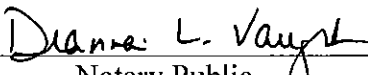
Further the Affiant sayeth not.



SARAH L.K. LANGE

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 15th day of April, 2022.



Notary Public

DIANNA L. VAUGHT Notary Public - Notary Seal State of Missouri Commissioned for Cole County My Commission Expires: July 18, 2023 Commission Number: 15207377

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Staff's Investigation of)
Matters Concerning the Rush Island Energy)
Center Belonging to Union Electric)
Company d/b/a Ameren Missouri) **File No. EO-2022-0215**

AFFIDAVIT OF SHAWN E. LANGE, PE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

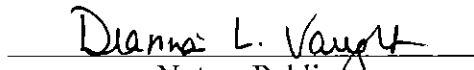
COMES NOW SHAWN E. LANGE, PE, and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff's Initial Investigation Report*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.


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 15th day of April, 2022.


Notary Public

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: July 18, 2023
Commission Number: 15207377