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Andrew M. Meyer
Rebuttal Testimony
File No. ER-2022-0337

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File No.: ER-2022-0337
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MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. ER-2022-0337

REBUTTAL TESTIMONY

OF

ANDREW MEYER

ON

BEHALF OF

UNION ELECTRIC COMPANY

D/B/A AMEREN MISSOURI

**St. Louis, Missouri
February, 2023**

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REBUTTAL TESTIMONY

OF

ANDREW MEYER

FILE NO. ER-2022-0337

1 **I. PURPOSE OF TESTIMONY**

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

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

6 **Q. Are you the same Andrew Meyer that filed direct testimony in this**
7 **proceeding?**

8 A. Yes, I am.

9 **Q. What is the purpose of your surrebuttal testimony in this proceeding?**

10 A. The purpose of my testimony is to address the following testimony:

11 1. Staff witness Claire M. Eubanks' recommended adjustment to Rush
12 Island rate base, based on her claim that Rush Island is "not fully
13 available."¹

14 2. Staff witness Alan Bax's calculated Voltage Adjustment Factors
15 ("VAFs").

16 3. Staff witness Amanda C. Connor's recommended modifications to
17 the Fuel Adjustment Clause ("FAC").

18 4. Staff witness Matthew R. Young recommended coal inventory.

¹ File No. Claire Eubank's Direct Testimony (January 10, 2023), p. 13, l. 2-3.

1 **Q. Do you have any schedules supporting your surrebuttal testimony?**

2 A. No.

3 **II. RUSH ISLAND OPERATIONS**

4 **Q. Staff witness Claire M. Eubanks recommends excluding a portion of**
5 **the Company's investment in Rush Island from rate base. How did Staff calculate this**
6 **reduced rate base amount?**

7 A. Staff calculated the difference between two production cost modeling
8 approaches; one based on economic commitments in the Midcontinent Independent System
9 Operator ("MISO") Energy & Ancillary Services Market ("Market"), and another based on
10 forecasted System Support Resource ("SSR") Operating Guide commitments in the MISO
11 Market.

12 **Q. Is the MISO market the only way that Rush Island produces revenue**
13 **for the customers?**

14 A. No. Both Rush Island units also participate in the MISO Planning Resource
15 Auction ("PRA") for capacity.

16 **Q. Did the Rush Island units clear in the MISO PRA for Planning Year**
17 **2022-23?**

18 A. Yes. Both units cleared in the PRA at their full accredited capacity, which
19 produced an annual Planning Year commitment, from June 2022 through May 2023. And
20 since the Auction Clearing Price for that PRA settled at the highest possible value of
21 \$236.66 per MW-Day, the Rush Island units received \$95.1M of capacity revenue from
22 that auction. The units also cleared at their full accredited capacity for Planning Year June

1 2021 to May 2022, meaning they are available at their full capacity when called upon by
2 MISO throughout the test year and true-up period in this case.

3 **Q. Was this commitment for the entire Planning Year and the resulting**
4 **\$95.1M of capacity revenue taken into consideration by Staff when making its rate**
5 **base recommendation?**

6 A. No, but it clearly should have been considered. The fact that both units are
7 committed as MISO capacity resources for every hour of the Planning Year contradicts the
8 conclusion that the units are not fully available or otherwise not used and useful.

9 **Q. Will the Rush Island units participate in the MISO PRA for Planning**
10 **Year 2023-24?**

11 A. Yes. In the upcoming MISO PRA for PY 2023-24, which will occur this
12 spring, the Company is preparing to submit offers for the Rush Island units. The window
13 to submit offers into the MISO PRA for PY23-24 closes on March 31, 2023. The Company
14 will know if the Rush Island units have cleared in this PRA when results are released on
15 April 28, 2023.

16 **Q. Are the units expected to clear in the upcoming PRA?**

17 A. Yes, since the Company intends to self-schedule both Rush Island units in
18 the upcoming seasonal PRA (i.e., bid at \$0), we know that the units will clear for certain
19 seasons and thus receive the clearing price from the 2023-2024 PRA auction. The
20 Company will self-schedule the units in the Summer 2023 seasonal auction, and likely will
21 take the same approach in the Fall 2023 and Winter 2023-24 seasonal auctions. The
22 Company is still weighing options for how best to utilize the Rush Island units for the
23 Spring 2024 auction.

1 **Q. Setting aside Staff's capacity factor argument, does Staff identify any**
2 **specific component or system at Rush Island that individually is not fully used and**
3 **useful?²**

4 A. No. Staff's recommendation is based solely on capacity factor variations.
5 Staff did not identify any part of the plant that is not fully operational and used for service
6 because there are none. Specifically, each component of the plant is operational, and is
7 operated, each time the units are committed by MISO. These systems, including fans,
8 feedwater pumps, boiler components, fuel handling and feeder equipment, turbines,
9 generators, and so on, are fully used and utilized.

10 **Q. Has the Company historically had generating units whose annual**
11 **capacity factor has substantially differed from one period to the next?**

12 A. For a coal plant, a good recent example is the Meramec Energy Center. For
13 decades, the Meramec steam units were operated as baseload generation. However, for the
14 last several years, the units did not operate near their historic capacity factors. The average
15 capacity factor for Meramec units 1-4, for 2017 through 2022, were 1%, 2%, 8%, and 14%,
16 respectively. However, during this time the units were accredited as MISO capacity
17 resources and participated in the Planning Resource Auctions through Planning Year 2021-
18 22. The units cleared in these auctions and were used to serve the Company's capacity
19 obligations, thus providing a capacity revenue stream for customers and mitigating
20 exposure to the auction clearing prices, as well as being available to ensure reliability as
21 needed.

² Company witness John Reed addresses the ratemaking and regulatory policy considerations that demonstrate why Staff's proposed adjustment should be rejected, given that Rush Island is fully operational, and is actually used for service.

1 **Q. Has the Company historically had generating units whose annual**
2 **capacity factor has substantially differed from one period to the next?**

3 A. For a coal plant, a good recent example is the Meramec Energy Center.
4 For decades, the Meramec steam units were operated as baseload generation with
5 relatively high net capacity factors across the year. However, for the last several years,
6 the units did not operate near their historic capacity factors. The average capacity factor
7 for Meramec units 1-4, for 2017 through 2022, were 1%, 2%, 8%, and 14%, respectively.
8 However, during this time the units were accredited as MISO capacity resources and
9 participated in the Planning Resource Auctions through Planning Year 2021-22
10 (Meramec retired at the end of 2022). The units cleared in these auctions and were used
11 to serve the Company's capacity obligations, thus providing a capacity revenue stream for
12 customers and mitigating exposure to the auction clearing prices, as well as being
13 available to ensure reliability as needed.

14 Another example of units that operate at a low net capacity factor, but which are
15 an important part of the Company's fleet, are the Company's combustion turbine
16 generator ("CTG") units. Overall, the CTG fleet has historically operated at a net
17 capacity factor of less than 10% across the year, and when they do operate it tends to be
18 during system peaks rather than during the shoulder months.³

³ Staff witness Eubank's observation that Rush Island only ran three times between September 1, 2022 and November 15, 2022, i.e., during shoulder months, doesn't mean Rush Island was not providing capacity on Ameren Missouri's system during that entire period, or that the units were not available to run. In fact, the CTG fleet's capacity is sold into MISO's Planning Reserve Auction each year and counts toward Ameren Missouri's MISO resource adequacy requirement despite the fleet's overall low net capacity factor.

1 **Q. You referenced that Rush Island is operating as an SSR under an**
2 **Operating Guide. Please provide a brief explanation of what that means.**

3 A. As indicated in monthly reports the Company files in File No. EO-2022-
4 0215, Rush Island has been designated as an SSR pending its retirement in the 2024-2025
5 timeframe because it is needs to dispatch at certain times to ensure reliable transmission
6 system operations. MISO has developed an Operating Guide governing MISO's dispatch
7 of the units.

8 **Q. What operations have occurred under the Operating Guide?**

9 A. In the five months since the SSR contract began, The Rush Island units have
10 operated for a combined 1,195 hours and produced 583,461 megawatt-hours of energy.
11 This energy production, combined with ancillary and capacity sales, has produced revenues
12 of \$69.3 million.

13 **Q. Will the Rush Island SSR contracts be extended beyond the initial one-**
14 **year term that ends September 1, 2023?**

15 A. The transmission reliability projects that necessitated the SSR status for the
16 Rush Island units will not be fully complete prior to September 2023. In fact, it is expected
17 that one of the STATCOM projects may not complete until after Spring 2024 and could
18 possibly extend further due to possible supply chain issues for equipment necessary to
19 complete the projects. Knowing that the reliability project completion dates will extend
20 beyond the SSR contract termination date, it is expected that the SSR contract will be
21 extended until the transmission project completion dates.

1

III. VOLTAGE ADJUSTMENT FACTORS

2

Q. What are voltage adjustment factors?

3

A. Under the Company's Rider FAC, voltage adjustment factors are applied to
4 different sets of customers taking service at different voltage levels to recognize the fact
5 that the initial FAR rate determined pursuant to the FAC tariff is based on a sales level that
6 is inclusive of distribution system line losses. In order to make the rate applicable to
7 metered usage of customers that does not include such distribution system line losses, the
8 rate must be adjusted by an appropriate loss factor that is specific to the voltage level at
9 which customers take service, which impacts the amount of losses that are incurred in
10 providing that service. The factors recommended by the Company are based on a periodic
11 line loss study conducted as required by the Fuel Adjustment Clause ("FAC") rules. The
12 most recent study was conducted in 2019, in accordance with those rules.

13

**Q. Is there a disagreement between the Company and the Staff regarding
14 the appropriate voltage adjustment factors to use??**

15

A. Staff's direct testimony would suggest there is. However, upon examining
16 it more closely it appears that Staff simply made a data entry error by inadvertently picking
17 up the wrong loss rates. It is my understanding that Staff intends to correct that error in
18 subsequent testimony, at which time, Staff's factors will match the Company's factors.

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IV. FUEL ADJUSTMENT CONTINUATION

Q. Staff witness Conner's Direct Testimony recommends continuation of the FAC on the terms proposed by Ameren Missouri and lists measures which she asks the Commission require Ameren Missouri to follow. Does Ameren Missouri agree?

A. Yes. Those 17 measures are already being taken by Ameren Missouri and Ameren Missouri has no objection to continuing them.

Q. Are the Company and the Staff otherwise in agreement on the calculation of the Base Factor for Rider FAC?

A. We are in agreement on the terms of Rider FAC, but there remain differences on what the base factors should be. Given that Staff used a different time period for normalizing inputs to its production cost model, and other net base energy cost ("NBEC") components and did not use the test year period used by Ameren Missouri, some differences are to be expected. I expect these timing differences to resolve naturally during True-Up phase of the case, when both parties use the same normalization period. Some further differences have been identified that result from errors in the calculation of model inputs. The Company is working with Staff to correct these issues and expect these to be resolved prior to the filing of respective True-Up period testimonies. Should the Company determine necessary corrections have not been made, these would be addressed in subsequent testimony.

In addition, one adjustment needs to be made to address the potential inclusion of virtual transaction margins in the calculation of NBEC.

1 **Q. In your direct testimony, you explained that the Company did not**
2 **include a normalized level of physical bilateral trading contract and financial swap**
3 **margins in its recommended net off-system sales due to generating units that will be**
4 **retired or impacted by a transition to retirement during the period when rates set in**
5 **this case will be in effect. Has Staff included a normalized level of physical bilateral**
6 **trading contract and swap margins in their recommended net off-system sales?**

7 A. No, not that I can ascertain.

8 **Q. Is it still your position that such margins should not be included in**
9 **net off-system sales in this case?**

10 A. Yes, with one exception. Upon further review and consideration, I
11 recommend that a normalized level of margins related to virtual transactions in the MISO
12 market be included in net off-system sales.

13 **Q. Why would it be appropriate to include the normalized margins for**
14 **virtual transactions?**

15 A. It is appropriate to include them because unlike the other physical
16 bilateral contracts and financial swap transactions, the underlying reason that they are
17 entered into would not reasonably be expected to be impacted by the retirement of the
18 Meramec Energy Center or the SSR operations at the Rush Island Energy Center associated
19 with its transition to retirement. As such, it is reasonable to expect that these transactions
20 would have occurred, even had Meramec been retired and Rush Island operations been
21 constrained during the test year (and true-up period).

1 **Q. Please explain further.**

2 A. A virtual transaction is a bid or offer to transact energy in MISO's Day
3 Ahead Market, that is not backed by physical load or generation. Ameren Missouri uses
4 virtual transactions to mitigate its price exposure for the energy needed to pump back its
5 Taum Sauk Pumped Storage Hydro Facility. This is necessary because the MISO market
6 rules do not allow for the clearing of "negative generation" in the Day Ahead market,
7 leaving exposure to real-time prices for pumping. We therefore use virtual transactions to
8 set the price of the energy that will be used for pumping. This emulates what would happen
9 if the unit were able to clear this pumping energy in MISO's Day Ahead market directly.

10 Since these transactions are overwhelmingly associated with Taum Sauk pump
11 schedules, they would not reasonably have been expected to be impacted by the retirement
12 of the Meramec Energy Center or the SSR operations at the Rush Island Energy Center
13 associated with its transition to retirement.

14 **Q. Have you determined what amount would be appropriate to include**
15 **in net off-system sales revenues?**

16 A. Yes. As part of its true-up filing, Ameren Missouri will include \$1.7
17 million in margins for these normalized virtual transactions in net-off system sales
18 revenues. This will serve to reduce NBEC by the same amount.

1 negotiations between the railroads and multiple bargaining units that had to be resolved by
2 Congressional action late last year.

3 **Q. How have the railroads addressed their staffing issues?**

4 A. In regard to the staffing deficit, both the Union Pacific and BNSF railways
5 executed aggressive hiring programs in 2022 and have established similar 2023 hiring
6 goals. The railways have also reached agreement with their represented workers.

7 **Q. Does this conclude your rebuttal testimony?**

8 A. Yes, it does.

