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Witness: Claire M. Eubanks, PE
Sponsoring Party: MoPSC Staff
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MISSOURI PUBLIC SERVICE COMMISSION

INDUSTRY ANALYSIS DIVISION

ENGINEERING ANALYSIS DEPARTMENT

SURREBUTTAL/TRUE-UP DIRECT TESTIMONY

OF

CLAIRE M. EUBANKS, PE

**UNION ELECTRIC COMPANY,
d/b/a AMEREN MISSOURI**

CASE NO. ER-2024-0319

*Jefferson City, Missouri
February 2025*

*** Denotes Highly Confidential Information ***

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1 My true-up direct testimony updates the adjustments related to bat curtailment based on
2 Staff's market price updates as part of its true-up audit.

3 **SURREBUTTAL TESTIMONY**

4 **High Prairie Bat Curtailment**

5 Q. Please explain the issue around the High Prairie wind farm and the witnesses
6 involved.

7 A. As the Commission is aware, Ameren Missouri has curtailed operations
8 overnight during bat season from April through October at the High Prairie renewable
9 generating facility. Ameren Missouri has implemented certain measures but progress has been
10 limited. This issue is further complicated by the recent turbine collapses at High Prairie.
11 The following witnesses discuss the issue of bat curtailment; however, Staff is only responding
12 to Ameren Missouri witnesses:

13 Staff

- 14 • Claire M. Eubanks - direct, rebuttal
15 • Shawn E. Lange - direct¹

16 Ameren Missouri

- 17 • Ajay K. Arora - rebuttal
18 • John J. Reed - rebuttal
19 • Steve Wills - rebuttal

20 MIEC

- 21 • Greg R. Meyer - direct

22 OPC

- 23 • Jordan Seaver - direct

24 Q. On page 24, line 21, of his rebuttal testimony, Mr. Arora argues that Staff agreed
25 that the decision to acquire High Prairie under the terms of the Build Transfer Agreement
26 (“BTA”) was prudent. Do you agree?

¹ As it relates to production cost modeling.

1 A. Yes. Staff is not alleging the signing of the BTA was imprudent, but what is
2 relevant to this issue are the decisions that Ameren Missouri has made which resulted in lower
3 production at High Prairie, Ameren Missouri's direct position in this case regarding production
4 levels of High Prairie, and the need for the Commission to order just and reasonable rates in
5 this case.

6 Q. What is the language from the CCN² stipulation with regards to decisional
7 prudence?

8 A. Paragraph 12, page 3, of the Third Stipulation and Agreement states:

9 12. Prudence: The Signatories agree that they shall not challenge the
10 prudence of the decision to acquire the facility under the terms of the
11 BTA, including Non-Compliant wind turbine generators under the
12 terms of the BTA, and to merge TG High Prairie, LLC into Ameren
13 Missouri if the acquisition of the facility closes pursuant to the BTA.
14 Nothing in this Stipulation limits the ability of any Signatory or other
15 party from challenging the prudency of the design, construction costs,
16 interconnection costs, and all other project related costs, including costs
17 impacted by construction duration.

18 Q. Did the stipulation and agreement address future ratemaking?

19 A. Yes, and it allows for future ratemaking positions to be proposed. In the general
20 provisions it states:

21 18. This Agreement is being entered into solely for the purpose of
22 settling the issues in this case explicitly set forth above. Unless
23 otherwise explicitly provided herein, none of the Signatories to this
24 Agreement shall be deemed to have approved or acquiesced in any
25 ratemaking or procedural principle, including, without limitation, any
26 cost of service methodology or determination, depreciation principle or
27 method, method of cost determination or cost allocation or revenue-
28 related methodology.

29 Q. Did Staff support the High Prairie project in the CCN case?

² Certificate of Convenience and Necessity ("CCN").

1 A. Yes. I, on behalf of Staff, recommended the Commission find the project under
2 the terms of the BTA in the public interest. Staff recognized that certain mitigation measures,
3 such as operating at a higher cut-in speed, would impact generation (and REC³) output and
4 therefore the economics of the project.⁴ However, Staff noted that Ameren Missouri considered
5 these risks in its RFP⁵ selection process and contract negotiations.

6 Q. On page 3, line 18, of Mr. Wills' rebuttal testimony he argues any adjustment
7 made to address High Prairie generation is "legally questionable" given the language of the
8 Renewable Energy Standard ("RES") statute. Do you agree?

9 A. No. Nothing in the RES statute requires the use of a Renewable Energy Standard
10 Rate Adjustment Mechanism ("RESRAM") by a utility nor does it change the Commission's
11 mandate to set just and reasonable rates. Mr. Wills points to the plain language of the RES
12 statute which requires the Commission to make rules to enforce the RES, including:

13 Provision for recovery outside the context of a regular rate case of
14 prudently incurred costs and the pass-through of benefits to customers
15 of any savings achieved by an electrical corporation in meeting the
16 requirements of this section.

17 Q. On page 8 of Mr. Wills' rebuttal testimony he presents an example of the
18 RESRAM interaction with base rates assuming increasing RES costs. Please explain the
19 interaction between the RESRAM and base rates.

20 A. The RESRAM is a periodic adjustment mechanism to recover RES compliance
21 costs and pass-through the benefits to the customers related to RES compliance outside of base

³ Renewable Energy Credit ("REC").

⁴ Case No. EA-2018-0202, Surrebuttal of Claire M. Eubanks, PE, Page 8, lines 4-13.

⁵ Request for Proposal ("RFP").

1 rates. If the Commission does not order an adjustment related to High Prairie there is no
2 accountability for Ameren Missouri to regain production.

3 The base amount for the RESRAM in Staff's case reflects Staff's modeled fuel run
4 using the operating profile for High Prairie assuming no overnight operations and Staff's
5 imputation of lost energy revenue, lost PTCs, and lost RECs. Staff is recommending the
6 Commission set the base amount for the RESRAM at this level as it is a reasonable expectation
7 based on historic generation at High Prairie. All else being equal, lower generation reflected
8 in the base amount means that the expected revenues are lower. In other words, all else
9 being equal, we expect there to be less benefits from High Prairie to offset renewable costs.
10 After rates are in effect from this case, Ameren Missouri will track the actual costs and benefits
11 against the base amount (converted to the Monthly Base Amount) over the accumulation period.
12 At the end of the accumulation period, the RESRAM rate will change based on whether there
13 was an over or under recovery. If the base amount in the RESRAM is artificially low (Ameren's
14 position at direct), there would more than likely be an under recovery and the RESRAM rate
15 will be adjusted upward for that under recovery in the next accumulation period. In other words,
16 customers may see a RESRAM credit for a few months but then later be hit with a RESRAM
17 charge. Either way customers pay the costs and receive the benefits from renewable resources.
18 Staff's position in this case is simply that customers are seeing less benefits because Ameren
19 Missouri voluntarily curtailed High Prairie overnight, hence the imputation of revenue in base
20 rates and the RESRAM base.

21 In the next rate case, if the bat mitigation measures result in higher production, Staff
22 would expect to see that in generation data and would reflect it in its production cost modeling
23 and in the base amount for the RESRAM.

1 Further, Ameren Missouri customers have been paying the return of and on
2 Ameren Missouri's investment in High Prairie since its inclusion in rates. Customers will
3 have to continue to bear the cost of the lost REC production through additional REC
4 purchases until production of High Prairie increases or until additional renewable resources are
5 producing energy.

6 Q. On page 9, lines 1-5, Mr. Wills implies that the RESRAM base amount proposed
7 by Staff is not in sync with the RES costs and benefits reflected in the revenue requirement that
8 underlies base rates. Do you agree?

9 A. No. The RESRAM base and RES-related costs and benefits reflected in the
10 revenue requirement are aligned in Staff's case.

11 Q. Mr. Wills argues against Staff's adjustment because if mitigation efforts are
12 completely effective customers will receive the benefits twice. First, is High Prairie likely to
13 fully regain its expected production before the next rate case?

14 A. *** [REDACTED]

15 [REDACTED] 6, [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED] ***

19 Further, the permitting timeline for obtaining a life of the plant permit from USFWS
20 is 20-32 months⁷ thus there is further uncertainty regarding the long-term operations of the
21 facility in regards to bat curtailment.

6 *** [REDACTED]

[REDACTED] ***

⁷ Response to Staff Data Request No. 0390 in ER-2024-0319. July 11, 2024 email from Kathryn Bulliner, USFWS.

1 Q. If High Prairie's production is not impacted at all by bat curtailments, is it Staff's
2 intention for ratepayers to receive the imputed revenues through the RESRAM twice?

3 A. No. Staff's direct position in this case aligned the RESRAM base with the
4 imputed sales in the High Prairie adjustment. Staff appreciates Mr. Wills' concern, and to
5 ensure that the High Prairie adjustment for lost energy, lost PTCs, and lost RECs is not received
6 twice through the RESRAM Staff recommends the Commission order an additional
7 clarification to Ameren Missouri's RESRAM tariff:

8 For purposes of the RESRAM base amount, it is assumed that the
9 generation from High Prairie does not occur overnight from April 1 to
10 October 31. \$ [Value of Adjustment] million is the 2024 approximated
11 value of energy revenues, PTCs, and RECs in those hours. An annual
12 true-up will occur so that the value of generation that does occur in
13 those hours will be netted from the adjustment.

14 Q. Is Ameren Missouri's position on High Prairie consistent with its other
15 renewable facilities in regards to the facility's energy profile?

16 A. No. Ameren Missouri has adopted Staff's position regarding the Atchison wind
17 generating facility, using a normalization of three years of operating history.⁸ Conversely, for
18 High Prairie, Ameren Missouri used an hourly energy profile as though High Prairie actually
19 operates at night during bat season. The hourly energy profile used by Ameren Missouri is for
20 a cut-in speed of 8.0 m/s; in other words, when wind speeds are above 8.0 m/s the turbines
21 will begin to rotate and produce electricity. Staff also uses an hourly energy profile for
22 High Prairie, however, Staff assumes no turbine operation overnight. As discussed in my
23 direct testimony, Staff reviewed High Prairie's operating history to gauge whether the energy
24 profile utilized for its modeling is reasonable. However, despite Ameren Missouri's direct

⁸ Rebuttal Testimony Mark Peters, page 5, lines 1-5.

1 position of more sales (and thus more benefits) in the RESRAM base, its position does not
2 preserve this imputation into the RESRAM. In other words, the operation of the RESRAM will
3 undo Ameren Missouri's apparent imputation in a year. With Staff's adjustment this effect will
4 be muted in a future RESRAM.

5 Q. Why is it important for Staff's adjustment to be in the RESRAM and base rates
6 when all RES-related costs and benefits flow through the RESRAM?

7 A. Because the RESRAM will "charge" customers for decreases in renewable
8 production relative to the RESRAM base, a RESRAM plug is necessary to prevent the
9 RESRAM from charging ratepayers for the generation shortfall that occurs in overnight hours.
10 A higher level of generation should be imputed separately so that ratepayers are not held
11 responsible for the shortfall in generation occurring due to bat curtailments.⁹

12 More specifically, Staff's adjustment first ensures that base rates resulting from this case
13 reflect the value of lost production, lost PTCs, and lost RECs. By including imputed revenue,
14 RECs and PTC values for High Prairie within the RESRAM base, the actual impact of
15 High Prairie operations on future RESRAM rates will be muted. The distinction between Staff's
16 treatment and Ameren Missouri's treatment is that Staff includes a plug in the RESRAM so that
17 the customer's do not repay Ameren Missouri's shareholders for the shortfall in revenue due to
18 the difference between actual operations – which are curtailed overnight – and the rate case
19 treatment which included imputed generation in both Staff's case and Ameren Missouri's case.

⁹ In fact, Ameren Missouri included a similar imputation.

1 Further, the level of generation modeled by both Staff and Ameren Missouri is likely to
2 significantly exceed actual generation in the near term due to *** [REDACTED]
3 [REDACTED]. ***

4 Q. Please provide an example of including a High Prairie adjustment in base rates
5 and a plug in the RESRAM.

6 A. First, let's review terms from the RESRAM tariff.

7 RES Costs Recovered ("RCR") means the RES compliance costs and RESRAM
8 benefits reflected in the RESRAM base amount.

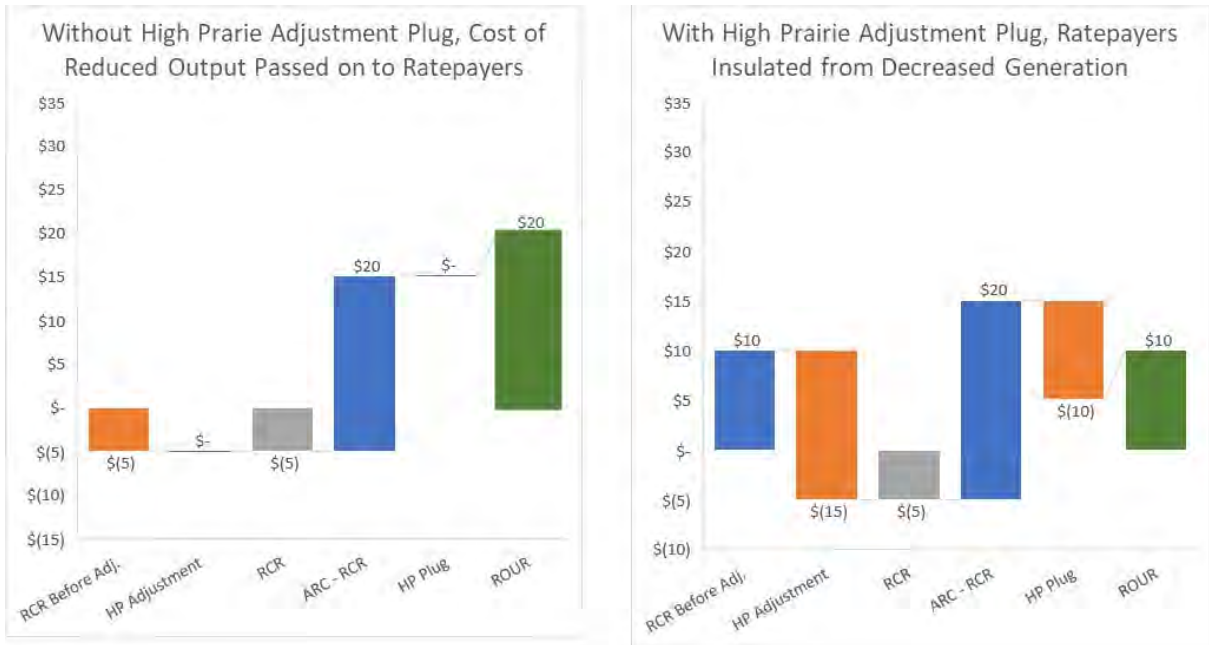
9 Actual RES Costs ("ARC") means the actual RES Compliance Costs and RESRAM
10 Benefits incurred or received during the recently completed accumulation period.¹⁰

11 RES (Over)/Under Recovery ("ROUR") is defined as $ARC - RCR + Interest$. In other
12 words, ROUR reflects the difference in actual RES costs (net of benefits) and the RES costs
13 (net of benefits) already recovered in base rates. ROUR is a component of the Total RESRAM
14 Recoveries used to calculate the RESRAM rate.

15 The waterfall charts below illustrate an example. In this example, RES costs (net of
16 benefits) are artificially low assuming full production in overnight hours. The chart on the left
17 represents a scenario where the High Prairie adjustment and plug are not ordered and the
18 resulting ROUR is higher. The chart on the right represents the same total RCR but broken into
19 two components where the initial RCR assumes a reasonable level of production and there is a
20 separate High Prairie adjustment. In both cases, the Actual RES costs are higher than expected
21 but the impact to a future RESRAM rate is muted when the HP adjustment and plug is included.

¹⁰ Including monthly adjustments to rate base for accumulated depreciation and accumulated deferred income taxes.

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3 Q. Returning to Mr. Arora’s rebuttal testimony, on page 6, Mr. Arora discusses
 4 certain BTA provisions. Did those BTA provisions fully compensate customers for lost
 5 production?

6 A. No. *** [REDACTED]
 7 [REDACTED]
 8 [REDACTED]

9 [REDACTED] *** on June 21, 2021, Ameren Missouri voluntarily ceased all
 10 nighttime operations.

11 Q. Were there other provisions of the BTA related to energy production?

12 A. Yes. *** [REDACTED]
 13 [REDACTED]
 14 [REDACTED]
 15 [REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] ***

Q. Did Ameren Missouri represent that the nighttime operations could impact the Production Guarantee?

A. When asked that question in a data request in a previous rate case, Ameren Missouri stated: ** [REDACTED] **. **¹¹

Q. Did Ameren Missouri agree to utilize the 5.0 m/s wind profile for purposes of releasing the Production Guarantee holdback?

A. Yes. As stated on page 20 of the Post-Closing Wind Resource Assessment,¹² Ameren Missouri agreed to utilize the 5.0 m/s cut in wind profile:

Bat curtailment: Actual bat curtailment averaged 36.9%, based on program of stopping all turbines every night regardless of wind speed. As noted in the build transfer agreement, this operational analysis is to be based on operational data, but the assumptions of the preconstruction estimate. The preconstruction estimate included two bat curtailment scenarios, and **during bi-weekly progress calls, Terra-gen and Ameren representatives agreed to base the comparison required in the build transfer agreement on the bat curtailment scenario with 5 m/s cut in wind speed.** The future loss factor for bat curtailment is based on the program assumptions from the preconstruction report, but estimated from operational data. [Emphasis added.]

Q. On pages 26-27 of Mr. Arora’s rebuttal testimony, he criticizes Staff’s position on High Prairie and its previous testimony in the Boomtown¹³ CCN case. Similarly, Mr. Reed

¹¹ Response to Staff Data Request No. 0573.2 from ER-2021-0240
¹² Response to Staff Data Request No. 0572 from ER-2022-0337.
¹³ Ameren Missouri also cites to Staff’s testimony in Evergy’s Persimmon Creek wind farm CCN case.

1 argues on page 15, lines 8-9, that Staff has not identified a regulatory or ratemaking principle
2 as the basis of its adjustment. How do you respond?

3 A. Staff has recommended an adjustment related to High Prairie in this case as an
4 alternative to Ameren Missouri's position regarding High Prairie operations. Ameren Missouri
5 has made decisions that have impacted its ability to operate High Prairie, reducing the energy
6 produced directly by Ameren Missouri and the revenues received from the MISO market for
7 that energy.

8 Contrary to Mr. Arora's comments in the previous rate case, Staff is not the Great and
9 Powerful Oz, the man behind the curtain.¹⁴ Staff's role is to provide the Commission an
10 unbiased recommendation based on the facts and circumstances of each particular case.
11 Mr. Arora is right - there is a connection to the arguments presented in the Boomtown case and
12 this rate case related to High Prairie. In the Boomtown CCN case, Mr. Arora argued that the
13 need for the Boomtown project is demonstrated by Ameren Missouri's purported need for
14 energy - driven by the early retirement of Rush Island.¹⁵ The overall energy position of Ameren
15 Missouri is also impacted by its voluntary curtailment of High Prairie. Staff's recommendations
16 in this case are not in direct contradiction as Mr. Arora alleges. Staff is questioning the
17 reasonableness of Ameren Missouri's decisions that have resulted in lower generation at
18 High Prairie while at the same time asking the Commission to grant it a CCN for approval of
19 another resource on the basis of energy needs. Further, Staff's testimony in Boomtown is clearly
20 discussing the economic risks that are outside the control of Ameren Missouri, not the risks

¹⁴ Mr. Arora rebuttal testimony in ER-2022-0337, page 21, line 9.

¹⁵ Surrebuttal of Ajay Arora in EA-2022-0245, page 6, lines 15 and 21.

1 brought on by its own decisions. Similar to Mr. Arora, Mr. Wills and Mr. Reed criticize Staff
2 for not raising facts that allege these decisions were imprudent.

3 It is a fair question for the Commission to consider whether Ameren Missouri's
4 conservative approach to avoiding taking bats, as Mr. Arora himself acknowledges is
5 conservative, is prudent. However, Staff did not base its recommendation on the question of
6 prudence. Staff's position on its High Prairie adjustments is an alternative to Ameren Missouri's
7 position, to ensure rates are just and reasonable. Ameren Missouri's position at direct artificially
8 lowers the RESRAM base in that it assumes High Prairie operates more than expected. In the
9 rebuttal testimony of Andrew Meyer, Ameren Missouri has conceded that its direct revenue
10 requirement calculation included a level of revenue for its generation based on market prices
11 that it has deemed to be "abnormally high due to geopolitical events and supply chain concerns
12 impacting almost the entirety of the commodity markets."¹⁶ Ameren Missouri's direct position
13 risked an additional rate increase through the RESRAM at a later date. That outcome is not just
14 to customers who are already frustrated with the proposed rate increase in this case.

15 **High Prairie Turbine Collapse**

16 Q. Do you have any corrections to make to your High Prairie Turbine collapse
17 adjustment?

18 A. Yes. In its direct filing, Staff proposed an adjustment to reflect a retirement
19 associated with the components that were destroyed as a result of the turbine collapse.
20 The adjustment should have removed the original cost from both plant and accumulated reserve
21 rather than removing the original cost from plant but only the amount depreciated from
22 accumulated reserve. Staff's accounting schedules at True-up reflect this correction.

¹⁶ Andrew Meyer rebuttal, page 2.

1 Q. Mr. Hipkiss argues that in the case of the Taum Sauk upper reservoir breach,
2 Staff did not propose an adjustment to remove the plant associated with Taum Sauk. Is this
3 example similar to the High Prairie turbine collapses?

4 A. No. While both involve destroyed plant assets, in the case of Taum Sauk,
5 the facts and circumstances of that case are not similar to this case. First, Taum Sauk served
6 customers for approximately 42 years before the reservoir failure. High Prairie has been
7 in-service since 2021.¹⁷ The High Prairie turbine collapses occurred during the test year period
8 of this case *** [REDACTED]

9 [REDACTED]
10 [REDACTED] *** In the case
11 of Taum Sauk, Ameren Missouri accepted responsibility for the reservoir failure and resulting
12 damages, its rate increase request did not include certain costs such as damage claims or
13 clean-up costs, Ameren Missouri did not ask to recover the costs of fines or penalties. Further,
14 as the Commission explains in its Report and Order,¹⁸ in ER-2007-0002 Ameren agreed to
15 include the generation of Taum Sauk as though it remained in operation through the test year
16 as the loss of such revenues would be harmful to customers:

17 The exclusion of the direct expenses of cleaning up the Taum Sauk
18 mess is not the end of the matter. AmerenUE used the Taum Sauk pumped
19 hydro power plant to provide electricity to its customers, as well as to
20 generate power to sell off-system in the wholesale electricity market. With
21 the Taum Sauk plant unable to generate electricity because of the failure of
22 the reservoir, AmerenUE will have to generate electricity for its own
23 customers using other, more expensive, power plants. Furthermore, it will be
24 unable to sell power from the Taum Sauk plant in the profitable wholesale
25 market. Since profits from off-system sales are used to offset AmerenUE's
26 cost of service, and thereby reduce the rates paid by AmerenUE's customers,

¹⁷ Case No. ER-2021-0240, Rebuttal testimony of J Luebbert, page 2, line 20.

¹⁸ Case No. ER-2007-0002, Report and Order, pages 11-12.

1 the loss of revenue from the Taum Sauk plant could have adverse
2 consequences for ratepayers, aside from the direct cost of cleanup.

3
4 To avoid harming ratepayers, AmerenUE agreed that the various
5 studies and cost models that are used to determine the company's cost of
6 service should be based on the assumption the Taum Sauk plant has remained
7 in operation throughout the test year. By using these models that assume the
8 Taum Sauk plant is still operating, the Commission will be able to establish
9 rates that protect ratepayers from having to pick up the bill for either the
10 cleanup costs or the lost revenues resulting from the Taum Sauk disaster.

11 **Rush Island**

12 Q. Please summarize the issue with Rush Island and the witnesses involved.

13 A. Ameren Missouri has been involved in litigation regarding environmental
14 permits at Rush Island since 2011. Rather than installing air pollution equipment at Rush Island,
15 Ameren Missouri made the decision to retire the plant. The witnesses providing testimony
16 related to Rush Island in this case include:

17 Staff

- 18 • Claire M. Eubanks – direct
19 Ameren Missouri
20 • Matt Michels – rebuttal
21 • Justin Davies – rebuttal

22 Q. On page 3, lines 6, Mr. Michels implies that Staff has proposed an adjustment
23 in this case that limits the transmission upgrade costs related to the retirement of Rush Island.
24 Is that accurate?

25 A. No. Staff reiterated its previous testimony in the Rush Island securitization case
26 to provide an update to the Commission and indicated that Staff may provide an update on the
27 project costs during the true-up phase of this case. I also explained that ** [REDACTED]

28 [REDACTED]
29 [REDACTED]. ** The final

30 STATCOM ** [REDACTED] ** is expected to be
31 in-service in June 2025, and thus is not included in this case.

1 Q. On page 3, line 16, through page 17, line 15, Mr. Davies discusses a concern
2 raised by Staff regarding the capacitor bank installed at Overton. Does this discussion satisfy
3 Staff's concern related to the Overton capacitor bank as it relates to this case?

4 A. Yes. It is also Staff's understanding that Ameren Missouri will correct its
5 application in the Cooper Substation case.

6 **TRUE-UP DIRECT TESTIMONY**

7 Q. What is the purpose of your True-up Direct testimony?

8 A. The purpose of my True-up Direct testimony is to update Staff's recommended
9 adjustments related to High Prairie with known and measurable changes through December 31,
10 2024.

11 Q. How have you updated the High Prairie adjustments?

12 A. Staff's market prices have been updated which are an input into my adjustments.
13 The table below presents Staff's quantification of the lost off-system sales revenue, PTCs, and
14 RECs at true-up direct due to Ameren Missouri's voluntary curtailment at High Prairie:

15

Lost Off-system sales Revenue	\$10,963,381
Lost PTCs	\$12,573,769
Value of lost RECs	\$1,313,508

16
17 Q. Does this conclude your Surrebuttal and True-Up Direct Testimony?

18 A. Yes, it does.

