

Exhibit No.:  
Issue(s): Unit Commitment  
Witness: Andrew Meyer  
Type of Exhibit: Surrebuttal Testimony  
Sponsoring Party: Union Electric Company  
File No.: ER-2019-0335  
Date Testimony Prepared: February 14, 2020

**MISSOURI PUBLIC SERVICE COMMISSION**

**FILE NO. ER-2019-0335**

**SURREBUTTAL TESTIMONY**

**OF**

**ANDREW MEYER**

**ON**

**BEHALF OF**

**UNION ELECTRIC COMPANY**

**D/B/A AMEREN MISSOURI**

**St. Louis, Missouri  
February, 2020**

## TABLE OF CONTENTS

I.	INTRODUCTION .....	1
II.	PURPOSE OF TESTIMONY .....	1
III.	OFF-SYSTEM SALES REVENUE .....	2
IV.	OPC REVIEW OF SIERRA CLUB ANALYSIS .....	6
V.	OPC CLAIMS OF IMPRUDENCE .....	11

**SURREBUTTAL TESTIMONY**

**OF**

**ANDREW MEYER**

**FILE NO. ER-2019-0335**

**I. INTRODUCTION**

1

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 and rebuttal**  
7 **testimony in this proceeding?**

8 A. Yes, I am.

9 **II. PURPOSE OF TESTIMONY**

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

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

12 1. The Office of the Public Counsel ("OPC") witness Lena Mantle's  
13 claims that the off-system sales revenue portion of net base energy costs  
14 proposed by the Company in this case - and also separately proposed by  
15 Missouri Public Service Commission Staff ("Staff") - are unreasonable;

16 2. Ms. Mantle's review of the economic analysis performed by Sierra  
17 Club witness Avi Allison; and

18 3. Ms. Mantle's claim that the Company has been imprudent in its unit  
19 commitment decisions.

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

2           A.     No.

3                           **III.    OFF-SYSTEM SALES REVENUE**

4           **Q.     OPC witness Lena Mantle states a concern that the off-system sales**  
5 **revenues calculated by Ameren Missouri and independently by Staff may be**  
6 **unreasonable.<sup>1</sup> How do you respond?**

7           A.     Ms. Mantle's check for reasonableness involves comparing the Staff's and  
8 the Company's normalized estimates for off-system sales revenue to the rolling twelve-  
9 month totals of historical actual revenues, and another comparison of normalized off-  
10 system sales margins to the rolling twelve-month total of historical actual margins. These  
11 comparisons, while informational, ignore several factors – not the least of which is the very  
12 reason that having a fuel adjustment clause ("FAC") is warranted – Ameren Missouri's fuel,  
13 and purchased power costs, including transportation, offset in part by off-system sales  
14 revenues, are volatile and uncertain. This simple comparison also does not adequately  
15 recognize that this normalized result is obtained by normalizing a large number of factors  
16 over a period of many years. When producing an estimate of normalized off-system sales  
17 revenue, no particular twelve-month period (including the twelve-month periods she  
18 examines) reflects a normal year. Any given year is affected by its unique weather,  
19 generation outages, fuel costs, transmission constraints, and energy prices, all of which  
20 contribute to the volatility and uncertainty of these revenues and costs.

---

<sup>1</sup>Lena Mantle Rebuttal Testimony, Page 12, lines 22-24.

1           **Q.     Were there any such events in the periods utilized by Ms. Mantle for**  
2 **her comparison which are of particular note?**

3           A.     Yes. To a varying extent, all of the factors I noted above impacted our off-  
4 system sales revenues. Since these factors impact the market forces of supply and demand,  
5 they necessarily affect the prices in the Midcontinent Independent System Operator, Inc.  
6 ("MISO") market.

7           Two very significant and related drivers during this rolling twelve-month  
8 timeframe were weather and generation availability. Missouri witnessed historic flooding  
9 throughout 2019. While this flooding did not generally disrupt service to Ameren  
10 Missouri's customers, it did create significant hardship in delivering fuel to the coal-fired  
11 energy centers – Rush Island in particular. The railroad tracks entering the plant were  
12 flooded from March 15<sup>th</sup> until April 10<sup>th</sup>, and again from May 2<sup>nd</sup> until July 7<sup>th</sup>. Initially  
13 this had no impact on plant availability, as the Company maintains on-site coal inventory.  
14 However, eventually these inventories declined to the point that it was prudent to curtail  
15 production at the Rush Island Energy Center to ensure that sufficient fuel was available to  
16 meet peak seasonal requirements. The energy center had no generation from May 28<sup>th</sup> until  
17 July 1<sup>st</sup>. These flooding hardships reduced forecasted generation, and as a result  
18 significantly reduced net off-system sales revenue.

19           **Q.     Were there other significant issues affecting off-system sales revenue**  
20 **during the rolling twelve months ending September 2019?**

21           A.     Yes. Sioux Unit 2 was offline for 73 days (March 8<sup>th</sup> to May 19<sup>th</sup>) in the  
22 spring of 2019 to undergo an urgent and unexpected repair and rewind the HP generator

1 rotor. Similar to the Rush Island flooding events, this event has the effect of reducing  
2 generation, and as a result reduced off-system sales revenue.

3 **Q. Are these events not accounted for in the Company's production cost**  
4 **model?**

5 A. They are accounted for in the development of the normalized outage  
6 assumption for our true up production cost modeling. They were not accounted for in our  
7 direct case - the one against which Ms. Mantle made her comparison - as they did not occur  
8 during the six-year period ending December 2018 (the test year in this case) used to  
9 normalize outages for use in the production cost model for the direct case.

10 Even when that normalization period is moved forward twelve months for the true-  
11 up, the use of a six-year normalization period necessarily means that only one-sixth of the  
12 impact of these outages is reflected in the normalized output.

13 **Q. If no particular twelve-month period reflects a normal year, is it**  
14 **possible for the Company and Staff to each produce normalized off-system sales**  
15 **revenue that are reasonable?**

16 A. Yes, and we have. The normalized values are as reasonable as one can  
17 expect given the inherent uncertainty in the level of future power and fuel prices which led  
18 to the approval of the FAC in the first place. This is especially true given that all parties  
19 are constrained by using historical information.

20 It is important to note that the Company and Staff each produced modeled results  
21 for off-system sales revenue that are close to one another. This validates that two  
22 independent groups, who believe that the same underlying assumptions are reasonable, are  
23 producing consistent results.

1           **Q.     Has Ms. Mantle raised this concern in prior proceedings?**

2           A.     Yes. Ms. Mantle's concern here is quite similar to the concerns she raised  
3 with the Company's normalized energy price assumption and normalized net base energy  
4 costs in File Nos. ER-2012-0166 and ER-2011-0028.

5           The finding of the Missouri Public Service Commission ("Commission") in Case  
6 No. ER-2011-0028 "that Ameren Missouri's pragmatic acceptance of the use of historical  
7 average sales in the calculation of future off-system sales simply reflects the Company's  
8 acceptance of the position the Commission clearly stated in previous Ameren Missouri rate  
9 case," is as valid today as it was then. It certainly does not reflect a flaw in the Company's  
10 development of a normalized value for off-system sales, nor does it reflect a flaw in the  
11 Staff's similar normalized value.

12           **Q.     Is there an alternative to using historical periods to develop the**  
13 **assumptions which are used in the production cost models which produce normalized**  
14 **off-system sales?**

15           A.     Yes. Rather than using historical data to develop normalized model inputs  
16 for market prices, fuel prices, etc., current market forecasts could be used. However, not  
17 only has this been specifically rejected by the Commission in past rulings, it would be  
18 inconsistent to utilize forward prices for this one aspect of establishing rates while still  
19 relying upon historical information for the other components. I believe the methodology  
20 which has been used over the past decade to normalize the inputs into the production cost  
21 model which produces normalized off-system sales is reasonable, and its continued use  
22 makes sense. Staff apparently agrees since it uses the same approach.

1           **Q.     Has Ms. Mantle supported the use of forward market prices in prior**  
2 **cases?**

3           A.     It is my understanding that she has not. In my review of her deposition  
4 transcript from File No. ER-2012-0166, she indicated that Staff (she was a member of Staff  
5 at the time) would not support the use of forward prices to determine what we now refer to  
6 as net base energy costs. She went on to state that that is her personal opinion as well.<sup>2</sup>

7           **Q.     Does Ms. Mantle offer a different solution for improving the**  
8 **normalized off-system sales revenues used to set net base energy costs in this case?**

9           A.     No.

10                           **IV.     OPC REVIEW OF SIERRA CLUB ANALYSIS**

11           **Q.     On page 17 of her rebuttal testimony, Ms. Mantle states that she**  
12 **"agree(s) with Mr. Allison that Ameren Missouri should take into account the MISO**  
13 **market prices when starting up a plant after a planned or forced outage."**<sup>3</sup> **How do**  
14 **you respond?**

15           A.     First, I would note that Ms. Mantle is stating agreement with a claim that is  
16 not explicitly made in Mr. Allison's testimony. Notwithstanding, in contrast to Ms.  
17 Mantle's apparent suggestion otherwise,<sup>4</sup> the Company *does* consider MISO market prices  
18 when starting up a unit, as I explained in detail in my rebuttal testimony.<sup>5</sup>

---

<sup>2</sup> Lena Mantle Deposition Transcript, File No. ER-2012-0166 (Sept. 17, 2012), Page 95, Lines 3-20.

<sup>3</sup> Lena Mantle Rebuttal Testimony, Page 17, Lines 4-5.

<sup>4</sup> Lena Mantle Rebuttal Testimony, Page 17, Lines 4-5.

<sup>5</sup> Andrew Meyer Rebuttal Testimony, Page 28, Line 1 through Page 30, Line 15.

1           **Q.     Ms. Mantle seems to simply accept Mr. Allison's claim that there were**  
2 **operational losses in the four instances Mr. Allison cited. Is she right to do so?**

3           A.     No, and it would appear she performed no independent analysis of her own  
4 since no workpapers were produced to reflect such an analysis and her rebuttal testimony  
5 certainly does not discuss one. As I also explained in my rebuttal testimony, the units in  
6 question collectively provided an incremental benefit to customers of nearly \$800,000  
7 across the four instances studied by Mr. Allison.

8           **Q.     Ms. Mantle offered her opinion that she did "not believe that Ameren**  
9 **Missouri would be dispatching these units in this manner if it did not have a FAC."**<sup>6</sup>  
10 **Is Ms. Mantle's belief warranted?**

11          A.     No. Setting aside for the moment that Mr. Allison's criticism was focused  
12 on Ameren Missouri's unit commitment decisions, and not unit dispatch, which are two  
13 entirely different things (and setting aside the fact that *MISO* and not Ameren Missouri  
14 dispatches the generation resources), Ms. Mantle's unsupported belief is without merit.  
15 Ameren Missouri's unit commitment decisions (and its generation offers which are used  
16 by *MISO* to determine unit dispatch) are based on the well-established principle of short-  
17 run marginal costs. This was true before the FAC and it remains true today. There is simply  
18 no support for her claim that "this was imprudent decision making by Ameren Missouri."<sup>7</sup>

---

<sup>6</sup> Lena Mantle Rebuttal Testimony, Page 17, Lines 19-20.

<sup>7</sup> Lena Mantle Rebuttal Testimony, Page 17, Lines. 21-22.

1           **Q.     Ms. Mantle recommends that "the Commission order its Staff to do a**  
2 **thorough review of Ameren Missouri's dispatch decisions of all of its units in its next**  
3 **FAC prudence review? How do you respond?**

4           A.     The prudence review process is exactly the proper venue for reviewing the  
5 Company's coal unit commitment practices, which is what is at issue here (not our  
6 "dispatch decisions," despite Ms. Mantle's persistent and incorrect references to such).  
7 Staff indicated its plans in the prior docket, File No. EW-2019-0370, to monitor Ameren  
8 Missouri's self-commit and self-scheduling strategies in fuel adjustment clause prudence  
9 reviews. Staff witness Shawn E. Lange restated this intention in his rebuttal testimony.<sup>8</sup> As  
10 noted, we believe that is the appropriate forum.

11           **Q.     Ms. Mantle also agrees with Mr. Allison's recommendation that certain**  
12 **specified hourly data be provided in the monthly FAC reports. How do you respond?**

13           A.     Both Mr. Byrne and I addressed why this is inappropriate in our rebuttal  
14 testimonies, although I did agree that certain data could properly be provided for the coal-  
15 fired units only in each rate case (those are the only ones for which unit commitment has  
16 been an issue of discussion). To be clear, we can provide the following data in the next  
17 electric rate case (I recommend providing this as a workpaper because it would constitute  
18 thousands, if not tens of thousands of lines of data and would be very difficult and  
19 cumbersome to "file" in the docket): the data identified by Mr. Allison at lines 12-16 at  
20 page 43 of his direct testimony, except that the Company does not maintain fuel or  
21 production cost data on an hourly basis and cannot provide per book hourly costs for

---

<sup>8</sup> Shawn E. Lange Rebuttal Testimony, Page 2, Lines 12-13.

1 variable operations and maintenance ("O&M") costs but can provide the proxy it uses in  
2 its generator offers for variable O&M.

3           It is also important to note that it is standard practice when evaluating the prudence  
4 of any decision to consider what the Company knew at the time of the decision. For unit  
5 commitment decisions, that timing is the day prior to the operating day. Thus far in this  
6 proceeding the Company has not retained the daily energy price forecast or the resulting  
7 margin analysis – although we have recently begun implementing a process for doing so.  
8 As a result, all the analysis of these events has been an after-the-fact evaluation of generator  
9 margins. A similar hindsight analysis should not be used for determining the prudence of  
10 unit-commitment decisions.

11           **Q.     You have noted Ms. Mantle's references to unit dispatch instead of unit**  
12 **commitment. Why is that important?**

13           A.     The focus of the testimony in this case, and indeed the focus of the  
14 Commission's "must-run inquiry," is on unit commitment decisions. Unit commitment  
15 refers to the decision to bring a unit online (or allow it to remain online.) Unit dispatch  
16 refers to the process to determine at what level above unit minimum to operate a generation  
17 unit. Unit dispatch is determined by MISO, except in the instance that a unit is self-  
18 scheduled.

19           The Company does not utilize the MISO feature of self-scheduling. Self-scheduling  
20 refers to when the level of generation output is controlled by the Market Participant, after  
21 a decision to start the unit has already been made. Recommending that the Commission  
22 order the Staff to perform an exhaustive review of a practice which is not even utilized by  
23 the Company would make no sense. The Company's only logical interpretation of Ms.

1 Mantle's request for a review of "dispatch decisions" to actually refer to unit commitment  
2 decisions.<sup>9</sup>

3 **Q. Should the scope of this self-commitment decision review include**  
4 **Ameren Missouri generators other than the Labadie, Rush Island, and Sioux units?**

5 A. The scope of Staff's review should be determined within the context of the  
6 prudence review itself. I would note that in both the must-run inquiry and Ameren  
7 Missouri's most recent FAC prudence review, Staff focused its review on those thermal  
8 units which were actually self-committed. The Callaway, Keokuk, and Osage energy  
9 centers, which are also self-committed, were not the focus of any great discussion in the  
10 workshop docket, File No. EW-2019-0370, given the unique operational characteristics of  
11 a nuclear power plant and the fact that a hydro-electric plant does not have a solid fuel  
12 source. In addition, Meramec Units 3 and 4 were not the subject of discussion in this  
13 docket.

14 **Q. Does the Company support the recommendation to provide the**  
15 **information recommended by Mr. Allison in its future monthly FAC submission,**  
16 **which Ms. Mantle claims to support?**

17 A. No, the Company supports providing the necessary data in the FAC  
18 prudence process and as noted above, should provide it in the next rate case as workpapers.  
19 It should not, however, be required in each monthly FAC report. The volume of data is  
20 *extensive*, as I indicated above. Moreover, an FAC rulemaking was just completed and there  
21 were specific changes made to the monthly FAC reporting requirements. This data was not  
22 included and we should not effectively be changing those requirements here.

---

<sup>9</sup> Lena Mantle Rebuttal Testimony, Page 18, Lines 1-4.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22

**V. OPC CLAIMS OF IMPRUDENCE**

**Q. Ms. Mantle claims that the four events identified by Mr. Allison reflect imprudent decision-making by Ameren Missouri.<sup>10</sup> Were Ameren Missouri's actions prudent?**

A. Yes. For all of the reasons detailed in my rebuttal testimony and that of Ameren Missouri witness Dr. Todd Schatzki, our actions were prudent.

Importantly, I would note that Ms. Mantle makes this outright assertion without performing any analysis of these events herself. She briefly references Mr. Allison's analysis and then makes a bold claim that goes beyond what the author of the analysis, Mr. Allison himself has claimed.

That said, not only is Ms. Mantle's claim false, as it is based on Mr. Allison's flawed analysis, it is untimely. The proper venue for pursuing a claim of imprudence that someone claims may have raised net energy costs tracked in the FAC is in a prudence review proceeding covering the period when the claimed imprudent decision occurred. The four events identified by Mr. Allison all occurred within the timeframe of Ameren Missouri's Seventh Prudence Review, File No. EO-2019-0257, where the Company's actions and costs were already determined to have not been imprudent.

**Q. In any event, is the analyses Ms. Mantle endorses sound?**

A. No, it is flawed for the reasons discussed extensively in my rebuttal testimony and further supported by the rebuttal testimony of Dr. Schatzki. These included that the event analysis produced by Mr. Allison utilized generation costs that were inappropriate for daily decision-making, including unit commitment and generation

---

<sup>10</sup> Lena Mantle Rebuttal Testimony, Page 17, Lines 21-22.

1 incremental energy offers. The event analysis utilized accounting costs instead of the  
2 marginal economic costs that are the basis for Ameren Missouri's daily generation offers  
3 into the MISO market. The after-the-fact analysis produced utilizing the correct marginal  
4 economic costs for the generators revealed the four events collectively demonstrated a  
5 positive, incremental benefit for Ameren Missouri customers that has been reflected to  
6 their benefit in the FAC.

7           Additionally, Mr. Allison's analysis was not made with information known at the  
8 time these decisions were made, but rather was made in hindsight, which is not the proper  
9 measure of prudence.

10           **Q. Ms. Mantle also cites Mr. Allison's testimony about "the variable costs**  
11 **of running the plant."<sup>11</sup> Are variable costs of running the coal plants being properly**  
12 **considered in Mr. Allison's analysis?**

13           A. No. Mr. Allison's analysis is based on a view of generator accounting costs  
14 that do not include relevant opportunity costs that would impact Ameren Missouri  
15 customers if the Company did not take specific actions. Even when Mr. Allison represents  
16 the variable costs of running the coal plants as the accounting cost of fuel and O&M, the  
17 cost basis is still inaccurate to the extent that accounting costs differ from the marginal  
18 costs of operation. The analysis of unit commitment decisions and generation incremental  
19 energy offers is properly made using short-run marginal costs – which is exactly what  
20 Ameren Missouri utilizes. The type of analysis which Mr. Allison performs (one looking  
21 at the total production cost and not just marginal costs) is more appropriately suited to  
22 system resource planning analysis, where it could be argued that all costs eventually (over

---

<sup>11</sup> Lena Mantle Rebuttal Testimony, Page 17, lines 7-8.

Surrebuttal Testimony of  
Andrew Meyer

1 the long-run) become marginal. However, the Company cannot construct daily offers in  
2 the MISO market as if it were trying to derive a resource planning conclusion each day.

3 **Q. Does this conclude your surrebuttal testimony?**

4 **A. Yes, it does.**

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

In the Matter of Union Electric Company d/b/a Ameren     )  
Missouri's Tariffs to Decrease Its Revenues for         ) File No. ER-2019-0335  
Electric Service.                                                     )

**AFFIDAVIT OF ANDREW MEYER**

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

COMES NOW Andrew Meyer, and on his oath declares that he is of sound mind and lawful age; that he has prepared the foregoing *Surrebuttal Testimony*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

  
\_\_\_\_\_  
Andrew Meyer

Subscribed and sworn to before me this 11<sup>th</sup> day of February, 2020.

  
\_\_\_\_\_  
Notary Public

My commission expires:

