

Exhibit No.:  
Issue(s): Fuel and Purchased Power;  
Net Base Energy Cost  
Components  
Witness: Mark Peters  
Type of Exhibit: Rebuttal Testimony  
Sponsoring Party: Union Electric Company  
File No.: ER-2022-0337  
Date Testimony Prepared: February 15, 2023.

**MISSOURI PUBLIC SERVICE COMMISSION**

**FILE NO. ER-2022-0337**

**REBUTTAL TESTIMONY**

**OF**

**MARK PETERS**

**ON**

**BEHALF OF**

**UNION ELECTRIC COMPANY**

**D/B/A AMEREN MISSOURI**

**St. Louis, Missouri  
February 15, 2023**

## TABLE OF CONTENTS

I.	INTRODUCTION .....	1
II.	PURPOSE OF TESTIMONY .....	1

**REBUTTAL TESTIMONY**

**OF**

**MARK PETERS**

**FILE NO. ER-2022-0337**

**I. INTRODUCTION**

1

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

3 A. Mark Peters, 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 Mark Peters that submitted direct testimony in this**  
7 **case?**

8 A. Yes, I am.

9 **II. PURPOSE OF TESTIMONY**

10 **Q. To what testimony or issues are you responding?**

11 A. My rebuttal testimony responds to the Direct Testimony of Staff Witness Shawn  
12 Lange. Specifically, I will address my concerns with Staff's calculation of the normalized energy  
13 production profile for the Atchison County Renewable Energy Center ("Atchison"), which is  
14 used in the calculation of the normalized market energy revenues and production tax credits  
15 components of the RESRAM.

16 **Q. Please explain your concern with Staff's calculation of a normalized**  
17 **energy production profile for Atchison.**

18 A. Staff's calculated profile is based on only twenty months of historical data,  
19 half of which occurred prior to September 9, 2021, when trial operations for the next to last

1 phase of construction was completed. This period of time is insufficient to develop a  
2 reasonable, normalized profile.

3 As a result, the normalized output of Atchison is understated.

4 **Q. Please elaborate.**

5 A. Witness S Lange states "Typically historic hourly generation data for each  
6 of the wind, solar, and hydro facilities that Ameren Missouri owns or purchases energy  
7 from was used to create representative average output profiles unique to each site." <sup>1</sup>  
8 (Page 4, lines 14-16)

9 While that is true for our Osage, Keokuk and Pioneer Prairie facilities,<sup>2</sup> that is not  
10 true for either our High Prairie or Atchison facilities. The reason for that is simple – these  
11 facilities were not acquired by Ameren Missouri until December of 2020, and January of  
12 2021, respectively. As such, the first time that these two facilities were included in our  
13 normalization calculations was in the true-up for Case No. ER-2021-0240, and even then,  
14 historical output was not utilized to develop the normalized profiles that were used.  
15 Instead, both Staff and Ameren Missouri used modeled profiles which had been developed  
16 on behalf of Ameren Missouri, specific to each facility.

17 **Q. How many years of historical data were used to develop the normalized**  
18 **profiles for the Osage, Keokuk and Pioneer Prairie facilities?**

19 A. Our modeling used a period of twelve years and three months of actual data.  
20 Staff used twenty-two and a half years for Keokuk, nineteen and a half years for Osage,  
21 and twelve and a half years for Pioneer Prairie.

---

<sup>1</sup> File No. ER-2022-0337, Direct Testimony of Shawn E. Lange, PE, p. 4, ll. 14-16.

<sup>2</sup> This methodology was first used in File No. ER-2016-0179, Rebuttal Testimony of Shawn E. Lange.

1           **Q.     How many years of historical data did Staff use for their Atchison**  
2 **Profile in this proceeding?**

3           A.     Staff used one year and eight months of historical data. That is significantly  
4 less than the historical periods used to develop the normalized profiles for the Osage,  
5 Keokuk and Pioneer Prairie facilities.

6           **Q.     Is twenty months of data sufficient to develop a normalized hourly**  
7 **profile for Atchison?**

8           A.     No, especially when one recognizes that the Atchison facility had a phased  
9 in implementation. By March 1, 2021, trial operations had been completed for 120 MW,  
10 and on September 9, 2021, trial operations were completed for an additional 174.4 MWs,  
11 bringing the total to 294.4 MWs.<sup>3</sup> That is just under the ultimate, full 299 MW capability  
12 of the facility.

13           Since Staff's data period only extends through June 30, 2022, this means that there  
14 is less that one full year of data with the facility having at least 294.4 MWs in commercial  
15 operation. It also means that Staff included in its calculations data from a time period prior  
16 to the full operation of the plant, which is not representative of ongoing plant operations.

17           That is not sufficient to establish a reasonable normalized annual profile.

18           **Q.     Did Staff use the same twenty months of historical data to develop a**  
19 **normalized hourly profile for High Prairie?**

20           A.     No. As noted in Witness Lange's Direct Testimony, for High Prairie, Staff

---

<sup>3</sup> Ameren Missouri's September 9, 2021, letter to the Southwest Power Pool, recorded as Appendix E to the generation interconnection agreement for Atchison.

1 used the same profile used in the true-up in File No. ER-2021-0240,<sup>4</sup> as adjusted to achieve  
2 no generation between sunset and the next day's sunrise for the period of April through  
3 October. That profile, prior to that adjustment, is the same profile prepared on behalf of  
4 Ameren Missouri that I referenced above.

5 **Q. What profile do you recommend should be used to model Atchison in**  
6 **this proceeding?**

7 A. The Atchison profile included in my true-up workpaper "TRUE UP – 19  
8 WIND – ENERGY CAPACITY REVENUE RESRAM" should be used for this purpose.  
9 This is the same profile developed on behalf of Ameren Missouri for Atchison that I  
10 reference above and is reasonable for use until such time has passed that there is sufficient  
11 historical data with the unit fully in commercial operation to transition to the same  
12 normalization methodology used for Osage, High Prairie, and Pioneer Prairie.

13 **Q. Have you determined the impact of adopting Staff's profile, rather than**  
14 **the one included in your modeling?**

15 A. Yes. Adopting Staff's profile would result in a reduction in output for  
16 Atchison of 105,801 MWH as compared to my recommendation. This would reduce the  
17 credit for energy revenues and production tax credits applied to the RESRAM.

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

19 A. Yes, it does.

---

<sup>4</sup> File No. ER-2022-0337, Direct Testimony of Shawn E. Lange, PE p. 5, ll. 1-3. The testimony refers to ER-2020-0240, which appears to be a typographical error, as this profile was only presented in ER-2021-0240.

