

*Exhibit No.:*  
*Issue(s):* Variable Fuel  
*Witness:* Shawn E. Lange, PE  
*Sponsoring Party:* MoPSC Staff  
*Type of Exhibit:* Rebuttal Testimony  
*Case Nos.:* ER-2022-0129 and  
ER-2022-0130  
*Date Testimony Prepared:* July 13, 2022

**MISSOURI PUBLIC SERVICE COMMISSION**  
**INDUSTRY ANALYSIS DIVISION**  
**ENGINEERING ANALYSIS DEPARTMENT**

**REBUTTAL TESTIMONY**

**OF**

**SHAWN E. LANGE, PE**

**Evergy Metro, Inc., d/b/a Evergy Missouri Metro**  
**Case No. ER-2022-0129**

**Evergy Missouri West, Inc., d/b/a Evergy Missouri West**  
**Case No. ER-2022-0130**

*Jefferson City, Missouri*  
*July 2022*



**PRODUCTION COST MODEL ASSUMPTIONS/INPUTS**

Q. What is a production cost model?

A. A production cost model is a computer simulation of a utility's energy generation, energy sales, and energy purchases. The results of production cost modeling are used to calculate variable fuel and purchased power expense.

Q. What are Spearville 1 and Spearville 2?

A. Spearville 1 and Spearville 2 are EMM owned wind facilities near Spearville, Kansas.

Q. What generation levels were modeled by EMM for Spearville 1 and Spearville 2?

A. Based on Evergy's response to Staff Data Request No. 0041, EMM modeled Spearville 1's annual generation at \*\* [REDACTED] \*\* MWhs and EMM modeled Spearville 2's annual generation at \*\* [REDACTED] \*\* MWhs.

Q. What generation levels were modeled by Staff for Spearville 1 and Spearville 2?

A. In direct Staff modeled Spearville 1's annual generation at \*\* [REDACTED] \*\* MWhs and Spearville 2's annual generation at \*\* [REDACTED] \*\* MWhs.

Q. Why are the modeled generation levels at Spearville 1 and 2 an issue?

A. According to the EMM response to Staff Data Request No. 0004 in Case No. EO-2022-0285:

\*\* [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

1 [REDACTED]  
2 [REDACTED] \*\*

3 Q. What was the historical annual generation for Spearville 1?

4 A. The last eleven years of generation for Spearville 1 are shown below:

5 \*\*

|            |            |
|------------|------------|
| [REDACTED] | [REDACTED] |

6 \*\*

7 Q. What is Staff's position on the use of an annual generation level of  
8 \*\* [REDACTED] \*\* MWhs for Spearville 1?

9 A. Since 2010, Spearville 1 has not met or exceeded the annual generation level  
10 that EMM has modeled in \*\* [REDACTED] \*\*. The last time the facility was at or near an  
11 annual generation level of \*\* [REDACTED] \*\* MWhs was \*\* [REDACTED] \*\*. Spearville 1's actual annual  
12 generation in 2021 was \*\* [REDACTED] \*\* MWh. 2021 was the first, and only, full calendar year  
13 that took into account the \*\* [REDACTED] \*\*

1                      \*\*. The use of \*\*                      \*\* MWhs for Spearville 1 annual generation is  
2 unreasonably high.

3 Q. What effect would setting the annual generation level for Spearville 1 at  
4 \*\*                      \*\* MWhs?

5 A. Since Spearville 1 is an Evergy owned wind farm, the fuel cost for the generation  
6 is assumed to be zero. Thus, the base fuel costs will be adjusted by the margin, positive or  
7 negative, for each MWh generated. If the actual level is less than the modeled level of  
8 generation, the total fuel cost would go up everything else equal. If the actual level of  
9 generation for Spearville 1 is more along the lines of what was seen in 2021, then ratepayers  
10 would be paying 95% of the difference in fuel costs modeled and the actual fuel cost, thus  
11 increasing the Fuel Adjustment Charge (FAC) for customers.

12 Q. What was the historical annual generation for Spearville 2?

13 A. The last ten calendar years of generation for Spearville 2 are shown below:

14 \*\*

|                             |                             |
|-----------------------------|-----------------------------|
| <u>                    </u> | <u>                    </u> |

15 \*\*

1 Q. What is Staff's position on the use of an annual generation level of  
2 \*\* [REDACTED] \*\* MWhs for Spearville 2?

3 A. Spearville 2's actual annual generation in 2021 was \*\* [REDACTED] \*\* MWhs. 2021  
4 was the first full calendar year that took into account the \*\* [REDACTED]  
5 [REDACTED] \*\*. The use of \*\* [REDACTED] \*\* MWhs for  
6 Spearville 2 annual generation is unreasonably high.

7 Q. What effect would setting the annual generation level for Spearville 2 at  
8 \*\* [REDACTED] \*\* MWhs?

9 A. Since Spearville 2 is an Evergy owned wind farm, the fuel cost for the generation  
10 is zero. Thus, the base fuel costs will be adjusted by the margin, positive or negative, for each  
11 MWh generated. If the actual level is less than the modeled level of generation, the total fuel  
12 cost would go up everything else equal. If the actual level of generation for Spearville 2 is more  
13 along the lines of what was seen in 2021, then ratepayers would be paying 95% of the difference  
14 in fuel costs modeled and the actual fuel cost, thus increasing the Fuel Adjustment Charge  
15 (FAC) for customers.

16 Q. Was this taken into account in the direct Staff fuel run?

17 A. Staff did not reflect this in its direct filing.

18 Q. Why did Staff not reflect this change in its direct filing?

19 A. In Staff Data Request No. 0235, Staff requested Evergy to provide changes to  
20 bidding strategy for all generating units. This change for Spearville 1 and Spearville 2 was not  
21 provided in response to Staff Data Request No. 0235, and the EMM response to Staff Data  
22 Request No. 0004 in Case No. EO-2022-0285 was provided in late May. This did not allow  
23 Staff time to reflect the necessary changes in the direct production cost model run.

Rebuttal Testimony of  
Shawn E. Lange, PE

1           Q.     Has Staff conducted a production cost model run reflecting this change for  
2 Spearville 1 and 2?

3           A.     Yes. This change will increase Staff's variable fuel cost from direct filed levels  
4 by \$ 2,636,405.

5           Q.     Does Staff have any plans to revisit the Spearville 1 and Spearville 2 annual  
6 generation levels used in its production cost models?

7           A.     Yes, it does. Annual generation levels are among the inputs that Staff will  
8 review as a part of the true-up testimony that it intends to file in these cases.

9           Q.     Does this conclude your rebuttal testimony?

10          A.     Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Evergy Metro, Inc. d/b/a Evergy )  
Missouri Metro's Request for Authority to ) Case No. ER-2022-0129  
Implement a General Rate Increase for Electric )  
Service )

In the Matter of Evergy Missouri West, Inc. )  
d/b/a Evergy Missouri West's Request for ) Case No. ER-2022-0130  
Authority to Implement a General Rate )  
Increase for Electric Service )

**AFFIDAVIT OF SHAWN E. LANGE, PE**

STATE OF MISSOURI )  
 ) ss.  
COUNTY OF COLE )

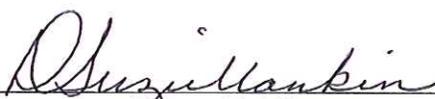
**COMES NOW SHAWN E. LANGE, PE** and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Rebuttal Testimony of Shawn E. Lange, PE*; and that the same is true and correct according to his best knowledge and belief.

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 8<sup>th</sup> day of July, 2022.

  
Notary Public