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Exhibit No. 244P

MoPSC Staff – Exhibit 244P Shawn E. Lange, PE Rebuttal Testimony File Nos. ER-2022-0129 & ER-2022-0130

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

1		REBUTTAL TESTIMONY		
2	OF			
3		SHAWN E. LANGE, P.E.		
4 5		Evergy Metro, Inc. d/b/a Evergy Missouri Metro Case No. ER-2022-0129		
6 7	Evergy Missouri West, Inc. d/b/a Evergy Missouri West Case No. ER-2022-0130			
8	Q.	Please state your name and business address.		
9	A.	My name is Shawn E. Lange and my business address is Missouri Public Service		
10	Commission, P.O. Box 360, Jefferson City, MO 65102.			
11	Q.	Are you the same Shawn E. Lange that filed direct testimony this case?		
12	A.	Yes, I am.		
13	Q.	What is the purpose of your testimony?		
14	A.	I will provide rebuttal testimony concerning the level of generation used in the		
15	production cost models for Spearville 1 and Spearville 2 by Evergy Missouri Metro ("EMM")			
16	witness Eric T. Peterson.			
17	EXECUTIVE SUMMARY			
18	Q.	Please summarize Staff's findings related to the level of generation used in the		
19	production co	est model for Spearville 1 and Spearville 2 used by EMM.		
20	A.	Staff's review found that the level of generation used by EMM and in its		
21	production cost models for Spearville 1 and Spearville 2 appears to be too high. As a result,			
22	the results of the production cost models used by EMM may not properly account for fuel and			
23	purchased power expenses.			

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PRODUCTION COST MODEL ASSUMPTIONS/INPUTS

2 Q. What is a production cost model? 3 A. A production cost model is a computer simulation of a utility's energy 4 generation, energy sales, and energy purchases. The results of production cost modeling are 5 used to calculate variable fuel and purchased power expense. 6 Q. What are Spearville 1 and Spearville 2? 7 A. Spearville 1 and Spearville 2 are EMM owned wind facilities near Spearville, 8 Kansas. 9 What generation levels were modeled by EMM for Spearville 1 and Q. 10 Spearville 2? 11 A. Based on Evergy's response to Staff Data Request No. 0041, EMM modeled Spearville 1's annual generation at ** Why and EMM modeled Spearville 2's 12 13 annual generation at ** MWhs. 14 What generation levels were modeled by Staff for Spearville 1 and Spearville 2? Q. In direct Staff modeled Spearville 1's annual generation at ** ** MWhs 15 A. and Spearville 2's annual generation at ** ** MWhs. 16 17 Why are the modeled generation levels at Spearville 1 and 2 an issue? Q. 18 A. According to the EMM response to Staff Data Request No. 0004 in Case 19 No. EO-2022-0285: 20 21 22 23 24 25

1 2 3 Q. What was the historical annual generation for Spearville 1? The last eleven years of generation for Spearville 1 are shown below: 4 A. 5 ** 6 7 What is Staff's position on the use of an annual generation level of Q. ** MWhs for Spearville 1? 8 9 Since 2010, Spearville 1 has not met or exceeded the annual generation level A. that EMM has modeled in ** **. The last time the facility was at or near an 10 annual generation level of ** ** MWhs was ** ** **. Spearville 1's actual annual 11 generation in 2021 was ** ** MWh. 2021 was the first, and only, full calendar year 12 13 that took into account the **

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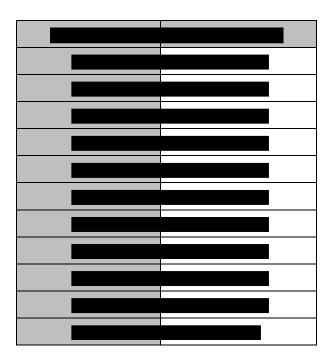
**. The use of ** ** MWhs for Spearville 1 annual generation is unreasonably high.

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

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

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

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



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1	Q. What is Staff's position on the use of an annual generation level of			
2	** MWhs for Spearville 2?			
3	A. Spearville 2's actual annual generation in 2021 was ** ** ** MWhs. 2021			
4	was the first full calendar year that took into account the **			
5	**. The use of ** 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	** 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 no			
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-2022-0285was provided in late May. This did not allow			
23	Staff time to reflect the necessary changes in the direct production cost model run.			

Has Staff conducted a production cost model run reflecting this change for 1 Q. 2 Spearville 1 and 2? Yes. This change will increase Staff's variable fuel cost from direct filed levels 3 A. by \$ 2,636,405. 4 Does Staff have any plans to revisit the Spearville 1 and Spearville 2 annual 5 Q. generation levels used in its production cost models? 6 Yes, it does. Annual generation levels are among the inputs that Staff will 7 A. review as a part of the true-up testimony that it intends to file in these cases. 8 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 Implement a General Rate Increase for Electric Service)))	Case No. ER-2022-0129					
	In the Matter of Evergy Missouri West, Inc. d/b/a Evergy Missouri West's Request for Authority to Implement a General Rate Increase for Electric Service)))	Case No. ER-2022-0130					
	AFFIDAVIT OF SH	AWN 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 <i>Rebuttal Testimony of Shawn E. Lange</i> , <i>PE</i> ; and that the same is true and correct according to his best knowledge and belief.								

JURAT

SHAWN E. LANGE, PE

Further the Affiant sayeth not.

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 ______ day of July, 2022.

Musullankin Notary Public