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Service Commission

Exhibit No. 266P

MoPSC Staff – Exhibit 266P Shawn E. Lange, PE Surrebuttal & True-up Direct 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: Surrebuttal and True-Up

Direct Testimony

Case Nos.: ER-2022-0129 and

ER-2022-0130

Date Testimony Prepared: August 16, 2022

MISSOURI PUBLIC SERVICE COMMISSION

ENGINEERING ANALYSIS DEPARTMENT

INDUSTRY ANALYSIS DIVISION

SURREBUTTAL AND TRUE-UP DIRECT 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 August 2022

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1 2		SURREBUTTAL AND TRUE-UP DIRECT TESTIMONY
3		OF
4		SHAWN E. LANGE, PE
5 6		Evergy Metro, Inc., d/b/a Evergy Missouri Metro Case No. ER-2022-0129
7 8		Evergy Missouri West, Inc., d/b/a Evergy Missouri West Case No. ER-2022-0130
9	Q.	Please state your name and business address.
10	A.	My name is Shawn E. Lange and my business address is Public Service
11	Commission,	P.O. Box 360, Jefferson City, MO 65102.
12	Q.	By whom are you employed and in what capacity?
13	A.	I am employed by the Missouri Public Service Commission ("Commission") as
14	a Senior Pro	ofessional Engineer in the Engineering Analysis Department of the Industry
15	Analysis Div	ision.
16	Q.	Are you the same Shawn E. Lange who filed direct testimony in these cases on
17	June 8, 2022	and rebuttal testimony on July 13, 2022?
18	A.	Yes, I am.
19		EXECUTIVE SUMMARY
20	Q.	What is the purpose of your surrebuttal and true-up direct testimony?
21	A.	My surrebuttal testimony addresses my response to Evergy witnesses
22	Eric T. Pete	erson, Jessica L. Tucker, and Midwest Energy Consumers Group witness
23	Greg R. Mey	er concerning a number of issues they identified related to Staff's Evergy Metro,
24	Inc., d/b/a Ev	rergy Missouri Metro ("Evergy Metro") production cost model. My true-up direct
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- testimony includes updated results to the variable fuel and purchased power expense for Evergy Metro.

 O. Is your testimony applicable to the general rate case filed by Evergy Metro in
 - Q. Is your testimony applicable to the general rate case filed by Evergy Metro in ER-2022-0129, or the general rate case filed by Evergy Metro in ER-2022-0130?
 - A. My surrebuttal and true-up direct testimony are only applicable to the general rate case filed by Evergy Metro in ER-2022-0129.

SURREBUTTAL TESTIMONY

WIND FARM SETTLEMENT LOCATIONS

- Q. In Mr. Peterson's rebuttal testimony he stated that Staff's production cost model for Evergy Metro used an incorrect settlement location for the Ponderosa wind farm.¹ Was he correct?
- A. Yes. In Staff's direct filing an incorrect settlement node was used when calculating market prices applicable to the Ponderosa wind farm. Staff's production cost model for Evergy Metro has been corrected to use the KCPL_KCPL node for calculating revenue from the Ponderosa wind farm.
- Q. Did Mr. Peterson's rebuttal testimony identify any other issues or inadvertent errors related to Staff's production cost model for Evergy Metro?
- A. Mr. Peterson identified issues with the way that Staff modeled the availability for Hawthorn 6/9.² He also cited inconsistencies between the production cost models used by Staff for Evergy Metro and Evergy Missouri West, Inc., d/b/a Evergy Missouri

¹ ER-2022-0129/0130, Rebuttal Testimony of Eric T. Peterson, page 5, lines 12-17.

² ER-2022-0129/0130, Rebuttal Testimony of Eric T. Peterson, page 2, line 3 through page 3, line 14.

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- West ("Evergy West") with regards to the operating assumptions for the Iatan Generating

 Station.³
 - Q. How have you addressed those additional issues raised by Mr. Peterson?
 - A. Staff has changed its production cost model to adjust the available period for Hawthorn 6/9 to the period May 1st through October 31st to match the period purported to be used by Evergy Metro. Finally, Staff took additional measures to ensure that the operation assumptions for the Iatan Generating Station were equivalent in its production cost models for both Evergy Metro and Evergy West.
 - Q. In Ms. Tucker's rebuttal testimony she stated that there was an error in Staff's fuel model results concerning LaCygne 1 coal.⁴ Was that correct?
 - A. Yes, Staff has corrected that issue.
 - Q. What was the magnitude of the impact to the results of Staff's production cost model from addressing the issues that Mr. Peterson and Ms. Tucker point out in their rebuttal testimony?
 - A. Incorporating the corrections suggested by Mr. Peterson and Ms. Tucker decreased the total fuel and purchases power cost filed in Staff's rebuttal testimony by approximately 1.51% or \$3,854,215 million.
 - Q. Do the errors that Mr. Peterson and Ms. Tucker identified call into question the overall results of the production cost model that Staff developed for Evergy West?
 - A. No. The errors that were identified reflected inadvertent errors made by Staff.

³ ER-2022-0129/0130, Rebuttal Testimony of Eric T. Peterson, page 8, line 20 to page 9, line 4.

⁴ ER-2022-0129/0130, Rebuttal Testimony of Jessica L. Tucker, page 2, line 1 through page 3, line 5.

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Q. Have the changes that you made to Staff's Evergy Metro production cost model been carried forward into the model update presented in your true-up direct testimony? A. Yes. The corrections that Staff made to its Evergy Metro production cost model are all included in the calculation of trued-up variable fuel and purchased power expense discussed in my true-up direct testimony. SALES FOR RESALE ADJUSTMENT Q. In Mr. Meyer's rebuttal he stated that Staff's value for sales for resale was understated and included a table 1 showing the historical sales for resale from the FERC Form 1. Do you have any concerns with Mr. Meyer's use of that data? A. Yes. It appears that Mr. Meyer pulled account 447 information from Evergy's FERC form 1, pages 310 and 311, an example is shown in the attached Schedule SEL-s1. These values include demand charges and revenue from wholesale customers that he compares to Staff's fuel modeling results. However, Staff's modeling reflects Day-Ahead costs and revenues. Q. Has Staff reviewed Evergy Metro's fuel expenses during the period 2019 through 2022? Yes. Staff has reviewed Evergy Metro's fuel data reported with the A. Fuel Adjustment Clause (FAC) reporting requirements over the period of January 2019 through June 2022. What fuel data did Staff review? Q.

A.	Staff looked at Bulk Sales for Resale, Fuel Expense Steam Production, Nuclear
Fuel Expens	e, Other Production Fuel, and Purchased Power. Staff used these values to
determine a v	value of variable fuel expense.
Q.	What was the result?
A.	The table below shows the twelve-month aggregate value of Staff's review of
Evergy Metro	o's Fuel adjustment clause reporting requirements.
**	
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Q.	How do those values compare to Staff's corrected direct run?
A.	Staff's corrected direct variable fuel result was \$252,060,455.98.
Q.	What would Mr. Meyer's adjustment do?
A.	If Mr. Meyer's adjustment is implemented, Staff's corrected direct level of total
variable fuel	expense would be reduced by an additional \$73,032,459, to \$179,027,996.98. This
would be con	siderably less than the fuel expense shown in the data provided as part of the FAC
reporting rec	quirements. Therefore, Staff has not included Mr. Meyer's adjustment going
forward.	
Q.	What would happen if Mr. Meyer's proposal is accepted and if the fuel costs
were more lil	ke what was seen in the 12 months ended 2022?

A.	Ratepayers would be paying 95% of the difference in fuel costs modeled and the
prudently inc	urred actual fuel costs.
Q.	Does this conclude your surrebuttal testimony?
A.	Yes.
	TRUE-UP DIRECT TESTIMONY
VARI	ABLE FUEL & PURCHASED POWER EXPENSE (EVERGY METRO)
Q.	Has Staff's production cost model been revised for its true-up filing?
A.	Yes. The time period under consideration for certain model assumptions has
been changed	to reflect the true-up date of May 31, 2022. The model inputs updated for known
and measurea	ble changes includes net system input and the generation from renewable energy
sources.	
Q.	How did Staff address the fuel prices (coal, natural gas, oil, nuclear) and market
prices used in	Staff's true-up production cost model?
A.	Staff used the same fuel prices and market prices in its true-up production cost
model that it	used in its direct filing. This was done to minimize the effects of recent price
volatility. Sta	aff witness Matthew R. Young also addresses recommendations related to true-up
fuel prices, in	his True-up direct testimony.
Q.	What is the trued-up level of Staff's variable fuel and purchased power expense
for Evergy M	etro?
A.	For known and measurable changes through May 31, 2022, Staff determined the
variable fuel	and purchased power expense for Evergy Metro to be \$252,156,694.98.
Q.	Does this conclude your true-up direct testimony?
A.	Yes.

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 SHA	AWN E. LANGE, PE
STATE OF MISSOURI)) ss. COUNTY OF COLE)	
and lawful age; that he contributed to the foreg	nd on his oath declares that he is of sound mind oing Surrebuttal / True-Up Direct Testimony of correct according to his best knowledge and belief.
SHA	WN E. LANGE, PE
JUI	RAT
Subscribed and sworn before me, a duly con	stituted and authorized Notary Public, in and for
he County of Cole, State of Missouri, at my offic	ce in Jefferson City, on this/ day of
August 2022.	
D. SUZIE MANKIN Notary Public - Notary Seal State of Missouri Commissioned for Cole County My Commission Expires: April 04, 2025 Commission Number: 12412070	Susullankin Notary Public

· vaiii	e of Respondent	This Re	port Is:	Date of R	enort I Veerl	Period of Report
Evo	rgy Metro, Inc.	(1) X	An Original	(Mo, Da,	Yr) Find o	
EVE	gy Medo, Inc.	(2)	A Resubmission	11	Lild C	
121 (24)	Report all sales for resale (i.e., sales to pur		S FOR RESALE (Accoun			
for e Purc 2. E own 3. Ir RQ - supp be th	er exchanges during the year. Do not reponergy, capacity, etc.) and any settlements chased Power schedule (Page 326-327). Inter the name of the purchaser in column ership interest or affiliation the respondent of column (b), enter a Statistical Classification for requirements service. Requirements olier includes projected load for this service in esame as, or second only to, the supplie	(a). Do not has with th on Code ba service is se in its syster's service to	te abbreviate or truncate e purchaser. ased on the original con ervice which the supplie em resource planning). o its own ultimate consi	schedule. Powe the name or u tractual terms a er plans to provi In addition, the umers.	rer exchanges must be se acronyms. Explair and conditions of the second an ongoing barreliability of requirements.	ne reported on the in in a footnote any service as follows: sis (i.e., the nents service must
reas from defir earli IF - han SF - one -U - servi	for tong-term service. "Long-term" means ons and is intended to remain reliable eve third parties to maintain deliveries of LF solition of RQ service. For all transactions ic est date that either buyer or setter can unifor intermediate-term firm service. The safive years. for short-term firm service. Use this category or less. for Long-term service from a designated gice, aside from transmission constraints, infor intermediate-term service from a designated girthan one year but Less than five years.	n under advervice). The lentified as laterally get ume as LF segory for all figenerating unated generated generated generated.	verse conditions (e.g., the category should not be LF, provide in a footnot out of the contract. The ervice except that "intesting services where the unit. "Long-term" meanthe availability and reliations to the conditions of the conditions are conditions.	ne supplier mus be used for Long e the termination rmediate-term" of duration of each s five years or L bility of designa	t attempt to buy eme g-term firm service w n date of the contrac means longer than or n period of commitme longer. The availabil ted unit.	rgency energy hich meets the t defined as the ne year but Less ent for service is ity and reliability of
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	Name of Company or Public Authority (Footnote Affiliations)	Statistical Classifi- cation		Average Monthly Billing Demand (MW)	Actual De Average Monthly NCP Demand	mand (MW) Average Monthly CP Deman
No.	(Footnote Affiliations) (a)	Classifi-	Schedule or Tariff Number (c)	Monthly Billing	Actual De Average Monthly NCP Demand (e)	mand (MW) Average Monthly CP Deman (f)
No.	(Footnote Affiliations) (a) City of Slater, MO	Classifi- cation	Schedule or Tariff Number	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Deman
No.	(Footnote Affiliations) (a) City of Slater, MO Independence Power & Light	Classifi- cation (b)	Schedule or Tariff Number (c)	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Deman
No.	(Footnote Affiliations) (a) City of Slater, MO	Classifi- cation (b)	Schedule or Tariff Number (c) WSPP, Sch A	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Deman
No. 1 2 3 4	(Footnote Affiliations) (a) City of Slater, MO Independence Power & Light Evergy Missouri West	Classifi- cation (b) RQ	Schedule or Tariff Number (c) WSPP, Sch A WSPP, Sch A	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Deman
No. 1 2 3 4 5	(Footnote Affiliations) (a) City of Slater, MO Independence Power & Light Evergy Missouri West Associated Electric Cooperative, Inc	Classifi- cation (b) RQ	Schedule or Tariff Number (c) WSPP, Sch A WSPP, Sch A WSPP, Sch A	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Deman
No. 1 2 3 4 5	(Footnote Affiliations) (a) City of Slater, MO Independence Power & Light Evergy Missouri West	Classification (b) RQ RQ RQ OS	Schedule or Tariff Number (c) WSPP, Sch A WSPP, Sch A WSPP, Sch A	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Deman
No. 1 2 3 4 5 6 7	(Footnote Affiliations) (a) City of Slater, MO Independence Power & Light Evergy Missouri West Associated Electric Cooperative, Inc Big Rivers Electric Corp City of Eudora, KS	Classification (b) RQ RQ RQ OS	Schedule or Tariff Number (c) WSPP, Sch A WSPP, Sch A WSPP, Sch A	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Deman
No. 1 2 3 4 5 6 7	(Footnote Affiliations) (a) City of Slater, MO Independence Power & Light Evergy Missouri West Associated Electric Cooperative, Inc Big Rivers Electric Corp	Classification (b) RQ RQ RQ OS	Schedule or Tariff Number (c) WSPP, Sch A WSPP, Sch A WSPP, Sch A WSPP, Sch A EEI Agreement	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Deman
No. 1 2 3 4 5 6 7	(Footnote Affiliations) (a) City of Slater, MO Independence Power & Light Evergy Missouri West Associated Electric Cooperative, Inc Big Rivers Electric Corp City of Eudora, KS	Classification (b) RQ RQ RQ COS CS CF CF CF	Schedule or Tariff Number (c) WSPP, Sch A WSPP, Sch A WSPP, Sch A WSPP, Sch A EEI Agreement	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Deman
No. 1 2 3 4 5 6 7 8	(Footnote Affiliations) (a) City of Slater, MO Independence Power & Light Evergy Missouri West Associated Electric Cooperative, Inc Big Rivers Electric Corp City of Eudora, KS Evergy Missouri West	Classification (b) RQ RQ RQ COS CS	Schedule or Tariff Number (c) WSPP, Sch A WSPP, Sch A WSPP, Sch A WSPP, Sch A WSPP, Sch A EEI Agreement EEI Agreement WSPP, Sch A	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Deman
No. 1 2 3 4 5 6 7 8 9 10	(Footnote Affiliations) (a) City of Slater, MO Independence Power & Light Evergy Missouri West Associated Electric Cooperative, Inc Big Rivers Electric Corp City of Eudora, KS Evergy Missouri West Kansas Municipal Energy Agency	Classification (b) RQ RQ RQ OS LF LF OS OS	Schedule or Tariff Number (c) WSPP, Sch A WSPP, Sch A WSPP, Sch A WSPP, Sch A EEI Agreement EEI Agreement WSPP, Sch A EEI Agreement	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Deman
No. 1 2 3 4 5 6 7 8 9 10	(Footnote Affiliations) (a) City of Slater, MO Independence Power & Light Evergy Missouri West Associated Electric Cooperative, Inc Big Rivers Electric Corp City of Eudora, KS Evergy Missouri West Kansas Municipal Energy Agency MidContinent Independent System Oper	Classification (b) RQ RQ RQ COS LF LF OS OS OS	Schedule or Tariff Number (c) WSPP, Sch A WSPP, Sch A WSPP, Sch A WSPP, Sch A WSPP, Sch A EEI Agreement EEI Agreement WSPP, Sch A EEI Agreement MISO RTO	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Deman
2 3 4 5 6 7 8 9 10	(Footnote Affiliations) (a) City of Slater, MO Independence Power & Light Evergy Missouri West Associated Electric Cooperative, Inc Big Rivers Electric Corp City of Eudora, KS Evergy Missouri West Kansas Municipal Energy Agency MidContinent Independent System Oper Southwest Power Pool	Classification (b) RQ RQ RQ COS LF LF OS OS OS	Schedule or Tariff Number (c) WSPP, Sch A WSPP, Sch A WSPP, Sch A WSPP, Sch A WSPP, Sch A EEI Agreement EEI Agreement WSPP, Sch A EEI Agreement MSPP, Sch A SPP RTO	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Deman
No. 1 2 3 4 5 6 7 8 9 10 11	(Footnote Affiliations) (a) City of Slater, MO Independence Power & Light Evergy Missouri West Associated Electric Cooperative, Inc Big Rivers Electric Corp City of Eudora, KS Evergy Missouri West Kansas Municipal Energy Agency MidContinent Independent System Oper Southwest Power Pool	Classification (b) RQ RQ RQ COS LF LF OS OS OS	Schedule or Tariff Number (c) WSPP, Sch A WSPP, Sch A WSPP, Sch A WSPP, Sch A WSPP, Sch A EEI Agreement EEI Agreement WSPP, Sch A EEI Agreement MSPP, Sch A SPP RTO	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Deman
No. 1 2 3 4 5 6 7 8 9 10 11 12 13	(Footnote Affiliations) (a) City of Slater, MO Independence Power & Light Evergy Missouri West Associated Electric Cooperative, Inc Big Rivers Electric Corp City of Eudora, KS Evergy Missouri West Kansas Municipal Energy Agency MidContinent Independent System Oper Southwest Power Pool	Classification (b) RQ RQ RQ COS LF LF OS OS OS	Schedule or Tariff Number (c) WSPP, Sch A WSPP, Sch A WSPP, Sch A WSPP, Sch A WSPP, Sch A EEI Agreement EEI Agreement WSPP, Sch A EEI Agreement MSPP, Sch A SPP RTO	Monthly Billing Demand (MW)	Average Monthly NCP Demand	Average Monthly CP Demar

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Subtotal RQ

Total

Subtotal non-RQ

Name of Respondent Evergy Metro, Inc.	This Report is: (1) XAn Original (2) A Resubmission	Date of Report (Mo, Da, Yr) / /	Year/Period of Report End of 2019/Q4
S	ALES FOR RESALE (Account 447) (Co	ontinued)	

- OS for other service. use this category only for those services which cannot be placed in the above-defined categories, such as all non-firm service regardless of the Length of the contract and service from designated units of Less than one year. Describe the nature of the service in a footnote.
- AD for Out-of-period adjustment. Use this code for any accounting adjustments or "true-ups" for service provided in prior reporting years. Provide an explanation in a footnote for each adjustment.
- 4. Group requirements RQ sales together and report them starting at line number one. After listing all RQ sales, enter "Subtotal RQ" in column (a). The remaining sales may then be listed in any order. Enter "Subtotal-Non-RQ" in column (a) after this Listing. Enter "Total" in column (a) as the Last Line of the schedule. Report subtotals and total for columns (9) through (k)
- 5. In Column (c), identify the FERC Rate Schedule or Tariff Number. On separate Lines, List all FERC rate schedules or tariffs under which service, as identified in column (b), is provided.
- 6. For requirements RQ sales and any type of-service involving demand charges imposed on a monthly (or Longer) basis, enter the average monthly billing demand in column (d), the average monthly non-coincident peak (NCP) demand in column (e), and the average monthly coincident peak (CP)
- demand in column (f). For all other types of service, enter NA in columns (d), (e) and (f). Monthly NCP demand is the maximum metered hourly (60-minute integration) demand in a month. Monthly CP demand is the metered demand during the hour (60-minute integration) in which the supplier's system reaches its monthly peak. Demand reported in columns (e) and (f) must be in megawatts. Footnote any demand not stated on a megawatt basis and explain.
- 7. Report in column (g) the megawatt hours shown on bills rendered to the purchaser.
- 8. Report demand charges in column (h), energy charges in column (i), and the total of any other types of charges, including out-of-period adjustments, in column (j). Explain in a footnote all components of the amount shown in column (j). Report in column (k) the total charge shown on bills rendered to the purchaser.
- 9. The data in column (g) through (k) must be subtotaled based on the RQ/Non-RQ grouping (see instruction 4), and then totaled on the Last -line of the schedule. The "Subtotal RQ" amount in column (g) must be reported as Requirements Sales For Resale on Page 401, line 23. The "Subtotal Non-RQ" amount in column (g) must be reported as Non-Requirements Sales For Resale on Page 401, line 24.
- 10. Footnote entries as required and provide explanations following all required data.

MegaWatt Hours	REVENUE			T-4-1 (A)	Li
Sold	Demand Charges (\$)	Energy Charges (\$) (i)	Other Charges (\$)	Total (\$) (h+i+j)	N
(g)	(\$) (h)		(j)	(k)	
20,593	109,067	1,503,260		1,612,327	
1,026		64,396		64,396	3
1,748		21,845		21,845	
		3,830		3,830	
	350,000			350,000	
42,773	373,875	1,625,363		1,999,238	
	2,610,020			2,610,020)
20,304	972,000	914,262		1,886,262	1
1					T
6,011,630		121,664,785		121,664,785	Ī
		57,256		57,256	
			į.		
23,367	109,067	1,589,501	0	1,698,568	T
6,074,708	4,305,895	124,265,496	0	128,571,391	Γ
6,098,075	4,414,962	125,854,997	0	130,269,959	T