

Exhibit No. 160

Staff – Exhibit 160
Testimony of Shawn E. Lange, PE
Surrebuttal/True-Up Direct
File No. ER-2024-0261

Exhibit No.:
Issue(s): *Variable Fuel Expense*
Witness: *Shawn E. Lange*
Sponsoring Party: *MoPSC Staff*
Type of Exhibit: *Surrebuttal / True-Up Direct
Testimony*
Case No.: *ER-2024-0261*
Date Testimony Prepared: *September 17, 2025*

MISSOURI PUBLIC SERVICE COMMISSION

INDUSTRIAL ANALYSIS DIVISION

ENGINEERING ANALYSIS DEPARTMENT

SURREBUTTAL / TRUE-UP DIRECT TESTIMONY

OF

SHAWN E. LANGE, PE

**THE EMPIRE DISTRICT ELECTRIC COMPANY,
d/b/a Liberty**

CASE NO. ER-2024-0261

Jefferson City, Missouri
September 2025

1 **SURREBUTTAL / TRUE-UP DIRECT TESTIMONY**

2 **OF**

3 **SHAWN E LANGE, PE**

4 **THE EMPIRE DISTRICT ELECTRIC COMPANY,**
5 **d/b/a Liberty**

6 **CASE NO. ER-2024-0261**

7 Q. Please state your name and business address.

8 A. My name is Shawn E. Lange, PE, and my business address is Missouri Public
9 Service Commission, P.O. Box 360, Jefferson City, Missouri 65102.

10 Q. Are you the same Shawn E. Lange who filed direct in this case?

11 A. Yes, I am.

12 Q. What is the purpose of your surrebuttal / true-up direct testimony?

13 A. The purpose of my surrebuttal / true-up direct testimony is to discuss
14 Mr. Tarter's concerns on the production cost model Staff used as well as provide the variable
15 fuel and purchase power expense incorporating all known and measurable changes as
16 of March 31, 2025, as well as discuss any revisions from direct.

17 **SURREBUTTAL TESTIMONY**

18 Q. In his Rebuttal Testimony, Mr. Tarter states:

19 When reviewing the hourly data in Staff's workpapers,
20 some negative market prices were observed. It appears that Staff's
21 model may have the Company's resources generating energy during
22 hours when prices are negative, even at a level where Company
23 resources would be curtailed. The Company's model addresses this
24 curtailment issue, but it is unclear if Staff's model does so as well.
25 This is concerning, as showing units operating during times when
26 they would not actually operate would have an unfavorable impact
27 on market revenues.
28

1 Q. Has Staff evaluated this concern?

2 A. While Mr. Tartar does not specifically identify the power plants or hours that he
3 is referring to, there are times when power plants may generate at times of negative prices.
4 For example, if power prices are briefly negative, it may be economical for a coal plant or
5 certain configurations of combustion turbine generators to operate at a relatively high level
6 because the prices before and after the period of negative pricing offset a brief period of
7 negative pricing. Staff has reviewed all hours of negative pricing for the fossil units in its
8 model, and has confirmed that generation has backed down in its model in hours
9 of negative pricing. Another reason plants would generate during periods of negative pricing
10 is if a wind farm is receiving a production tax credit ("PTC"). It may be economically
11 reasonable for a utility to generate from a wind farm during negative pricing so long as the
12 negative price is more than offset by the PTC value. Staff currently models renewable resources
13 using normalized historic generation.¹

14 **TRUE-UP DIRECT TESTIMONY**

15 Q. How have you revised your production model for true-up?

16 A. I have updated the time periods reflected in certain model assumptions to change
17 the ending period from the update cut-off date, September 30, 2024, to the true-up cut-off date,
18 March 31, 2025.

¹ Staff reviewed the SPP Day Ahead locational marginal prices with the actual generation on an hourly basis and found that there are hours that certain wind resources may generate when the day ahead locational marginal price is below that wind farm's variable cost.

1 Q. What is the value of the variable fuel and purchase power expense?

2 A. Staff calculates the variable fuel and purchased power expense for
3 Empire District Electric Company for known and measurable changes through the true-up
4 cut-off date of March 31, 2025, to be \$86,728,553.

5 Q. What is your recommendation?

6 A. I recommend that the Commission adopt the updated variable fuel and purchase
7 power expense that Staff modeled.

8 Q. Does this conclude your surrebuttal / true-up direct testimony?

9 A. Yes it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

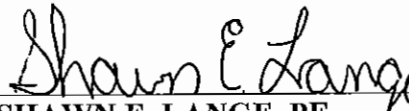
In the Matter of the Request of The Empire)
District Electric Company d/b/a Liberty for)
Authority to File Tariffs Increasing Rates)
for Electric Service Provided to Customers)
in Its Missouri Service Area)
Case No. ER-2024-0261

AFFIDAVIT OF SHAWN E. LANGE, PE

STATE OF MISSOURI)
)
COUNTY OF COLE) ss.

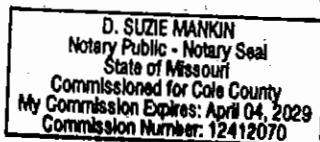
COMES NOW SHAWN E. LANGE, PE and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Surrebuttal / True-Up Direct Testimony of Shawn E. Lange, PE*; and that the same is true and correct according to his best knowledge and belief.

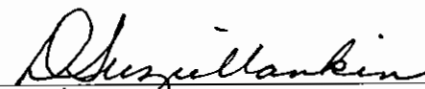
Further the Affiant sayeth not.


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 9th day of September 2025.




Notary Public