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Exhibit No.: Issue(s): Witness: Sponsoring Party: Type of Exhibit: Case No.: Date Testimony Prepared:

Production Cost Model Shawn E. Lange MoPSC Staff Rebuttal Testimony ER-2019-0335 January 21, 2020

Date 34 20 Reporter

MISSOURI PUBLIC SERVICE COMMISSION

INDUSTRY ANALYSIS DIVISION

ENGINEERING ANALYSIS DEPARTMENT

REBUTTAL TESTIMONY

OF

SHAWN E. LANGE

UNION ELECTRIC COMPANY, d/b/a AMEREN MISSOURI

CASE NO. ER-2019-0335

Jefferson City, Missouri January 2020

1.		REBUTTAL TESTIMONY	
2		OF	
3	SHAWN E. LANGE		
4 5	UNION ELECTRIC COMPANY, d/b/a AMEREN MISSOURI		
6		CASE NO. ER-2019-0335	
7	Q.	Please state your name and business address.	
8	А.	My name is Shawn E. Lange and my business address is Missouri Public Service	
9	Commission, P.O. Box 360, Jefferson City, MO 65102.		
10	Q.	Are you the same Shawn E. Lange that provided sections in Staff's Direct report	
11	in this proceeding?		
12	А.	Yes, I am.	
13	Q.	What is the purpose of your rebuttal testimony?	
14	А.	The purpose of my rebuttal testimony is to address two points that Sierra Club	
15	witness Avi Allison addressed in direct testimony filed December 4, 2019.		
16	Q.	What is the first point that you will be addressing?	
17	A.	When discussing Ameren Missouri's unit commitment analysis retention	
18	policies, on page 36, lines 14-18 witness Avi Allison states:		
19 20 21 22 23 24		Ameren claims that it performs such analyses on a daily basis. Ameren states that these analyses include comparisons of production costs to forecasted electricity prices for the next 10 days and account for potential startup and cycling costs. However, in discovery Ameren stated that it could not provide any of the analyses it conducted in the past three years because those analyses are overwritten each day.	

Rebuttal Testimony of Shawn E. Lange

1	Q.	What is Staff's position on Ameren Missouri's retention policy as it pertains to	
2	Unit Commitment analysis?		
3	А.	Staff is in favor of the Sierra Club's recommendation ¹ to require Ameren	
4	Missouri to retain the analyses underlying its unit commitment decisions for a period of at leas		
5	two years.		
6	Q.	What is the second point Staff would like to address?	
7	А.	Starting on pg. 26 and continuing through pg. 42, Sierra Club witness Avi	
8	Allison discusses Ameren Missouri's unit commitment and dispatch practices. Much of the		
9	discussion focuses on the practice of utilizing "must-run" commitment status for its units, it		
10	particular coal units.		
11	Q.	What is Staff's position on "must-run" commitment status?	
12	А.	In File No. EW-2019-0370, Staff was tasked with investigating the self-commit	
13	and self-scheduling practices of Missouri's investor owned electric utilities in their respectiv		
14	Regional Transmission Organization ("RTO") energy markets to determine if such practice		
15	benefit their ratepayers. Staff's resulting investigatory report on Ameren Missouri can be found		
16	in the EW-2020-0032 case docket.		
17	Q.	Have any of the RTOs/ISOs looked at the effect "must-run" or "self-commit"	
18	commitment status has on the respective market?		
19	А.	Yes. In December 2019, the Southwest Power Pool ("SPP") Market Monitoring	
20	Unit published a report entitled "Self-Committing in SPP markets: Overview, impacts, and		
21	recommendations."		

¹Avi Allison Direct filed December 4, 2019 page 5, lines 6-8.

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Q.

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What impact did eliminating self-committing have in SPP markets?

- A. "On average in every hour of the study period, system marginal prices were higher when all units market-committed... The average system marginal price over all hours increased more than seven percent, about \$2/MWh on average."²
 - Q. What was their recommendation(s)?

A. "[S]imply eliminating self-commitment without any additional changes could
result in an increase in total production costs. This would not necessarily be an improvement
when compared to today's results. However, when lead times were shortened to reflect an
additional day in the market optimization and self-commitment was eliminated, producers were
paid more and production costs declined."³ "Specifically, we recommend that SPP and its
stakeholders consider a multi-day commitment period of two days to allow units to commit
long lead time resources."⁴

Q. In your opinion, are the conclusions of the SPP Market Monitoring Unit
generally applicable to Ameren Missouri's participation within Midcontinent Independent
System Operator ("MISO")?

A. "MISO analyses show that multi-day market forecasts can improve economic
commitment decisions."⁵ However, the mix of generation resources, load, and the geographic
location of generation and transmission assets is different between MISO and SPP. In addition,
MISO has a capacity market, and SPP does not. These differences make the extent of the exact
effect that the SPP MMU recommendation would have in MISO unclear.

³ https://www.spp.org/documents/61118/spp%20mmu%20self-commit%20whitepaper.pdf pg. 42.

² https://www.spp.org/documents/61118/spp%20mmu%20self-commit%20whitepaper.pdf pg. 39.

⁴ https://www.spp.org/documents/61118/spp%20mmu%20self-commit%20whitepaper.pdf pg. 43.

⁵ <u>https://www.ferc.gov/CalendarFiles/20180626080726-T2%20-%202%20-%20Hansen%20-</u> %20MISO PowerGEM MultiDay FINAL.pdf pg. 2.

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Q. Has Staff committed to continue to monitor the situation?

Yes, in Staff's Second Supplemental Report submitted November 8, 2019, 2 A. "Staff maintain[ed] that in order to fully understand the economic impact of self-scheduling on 3 a given unit's profitability, an analysis at the RTO level would need to be conducted." Further 4 noting, "Due to the highly confidential nature of utilities' market bidding strategies, it is highly 5 unlikely that any party other than SPP or MISO have the raw data, modeling software access, 6 7 and resources to conduct such an extensive analysis of market trends." Having noted the constraints, Staff indicated its plans to monitor Ameren Missouri's self-commit and 8 9 self-scheduling strategies in fuel adjustment clause prudence reviews. Further, when discussing special contemporary issues for each utility's integrated resource planning, the Commission 10 included self-scheduling/self-commit as a special contemporary issue that should be addressed 11 12 in IRPs.

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Q. Does this conclude your rebuttal testimony?

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A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Decrease Its Revenues for Electric Service

Case No. ER-2019-0335

AFFIDAVIT OF SHAWN E. LANGE

SS.

STATE OF MISSOURI)) COUNTY OF COLE)

COMES NOW SHAWN E. LANGE 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*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

E. Lange WN E. LANGE

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 <u>lon</u> day of January, 2020.

Dania L. Vang/L Notary Public

DIANNA L. VAUGHT Notary Public - Notary Seat State of Missouri Commissioned for Cole County My Commission Expires: July 18, 2023 Commission Number: 15207377