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**BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

DIRECT TESTIMONY OF

JESSICA L. TUCKER

**ON BEHALF OF
EVERGY METRO, INC. d/b/a EVERGY KANSAS METRO**

**IN THE MATTER OF THE APPLICATION OF
EVERGY KANSAS METRO
FOR APPROVAL OF ITS 2022 ACTUAL COST ADJUSTMENT (“ACA”)**

DOCKET NO. 23-EKME-638-ACA

1 **Q: Please state your name and business address.**

2 A: My name is Jessica L. Tucker. My business address is 1200 Main, Kansas City, Missouri
3 64105-2122.

4 **Q: By whom and in what capacity are you employed?**

5 A: I am employed by Evergy, Inc. (“Company”) as Senior Manager, Fuels and Emissions.

6 **Q: What are your responsibilities?**

7 A: My primary responsibilities include management and oversight of fuel procurement and
8 logistics (apart from natural gas) and coal combustion residual product management and
9 marketing for Evergy operated generating stations.

1 **Q: Please describe your education, experience and employment history.**

2 **A:** I graduated Summa Cum Laude from Kansas State University in December 1999 with a
3 Bachelor of Science degree in Agriculture. I began my career in the energy industry in
4 January 2001 with Aquila as an Associate Hourly Trader. In this role, my efforts were
5 focused on executing short term physical power transactions in the real time market
6 across various North American Electric Reliability Corporation (“NERC”) regions. My
7 employment with Evergy Metro (f/k/a KCP&L) began in August of 2002 as an Hourly
8 Trader on the real time desk. From August 2002 to May 2006, my role focused on
9 buying and selling power in the real time market. In June 2006, I was promoted to
10 Interchange Marketer, which focused my trading activity on day ahead and monthly
11 power transactions. I was also a part of the Company’s RTO integration team that
12 prepared the generation dispatching and trading area for participation in the Southwest
13 Power Pool (SPP) Energy Imbalance Service (“EIS”) market, which launched on
14 February 1, 2007. In November 2010, I was promoted to Manager, System Operations
15 (Power). My primary responsibility was to oversee 24x7 Power Control Center
16 functions, which consisted of real time and day ahead power trading, power scheduling,
17 and generation dispatching operations. This not only included overseeing our
18 participation in the SPP market, but compliance with applicable NERC Reliability
19 Standards. I was also responsible for preparing the dispatching and trading group for
20 participation in the SPP Integrated Marketplace (“IM”), which launched on March 1,
21 2014. In April 2015, I was promoted to Senior Manager, Power System Operations. In
22 July 2017, I moved into the role of Senior Manager, Fuels & Emissions within the Fuels
23 group.

1 **Q: Have you previously testified in a proceeding at the Kansas Corporation**
2 **Commission (“KCC” or “Commission”) or before any other utility regulatory**
3 **agency?**

4 A: Yes. Beginning in early 2017, I have testified in several dockets before the MPSC and/or
5 KCC regarding certain topics associated with the SPP Integrated Marketplace or fuel-
6 related subject matter.

7 **Q: On what subjects will you be testifying?**

8 A: I will address four topics:

- 9 ▪ A summary of the information provided in the Company’s quarterly ECA
10 submittals made on December 20, 2021, March 18, 2022, June 20, 2022, and
11 September 20, 2022, in Docket No. 08-KCPE-677-CPL, Evergy Kansas Metro’s
12 ECA tariff compliance docket;
- 13 ▪ A comparison of the projected 2022 ECA to its 2022 ACA;
- 14 ▪ Fuel procurement planning and practices; and
- 15 ▪ A summary of the cost effects on one part of the Southwest Power Pool (“SPP”)
16 Integrated Market (“IM”), namely the impact on consumer power prices due to
17 the Consolidated Balancing Authority of the IM.

18 **I. Information Provided in Quarterly ECA Submittals**

19 **Q: What is the purpose of this portion of your testimony?**

20 A: In this section of my testimony, I will briefly describe the information Evergy Kansas
21 Metro submits when it files its ECA factors with the Commission.

22 **Q: What information does the Company submit when it files its ECA factors each**
23 **quarter?**

24 A: Evergy Kansas Metro’s ECA tariff identifies several items that go into the calculation of
25 the ECA factors including fuel and purchased power costs, transmission costs and related

1 fees, emission allowance costs and off-system sales margins (“OSSM”). Starting in
2 December 2007, on or before the 20th day of the month preceding each calendar quarter,
3 the Company submits to the Commission a report containing projected monthly ECA
4 factors on a dollars per kWh basis for each remaining month of the effective ECA year.
5 The Company also submits a report that shows by account the total costs, revenues, and
6 kWh used to calculate the dollars per kWh factors. Starting with the March 2008 report,
7 the Company also compares the original ECA revenue projections and the then-current
8 ECA year-end projections on a total revenue basis.

9 **Q: Have there been any changes to how the Company projects those ECA factors?**

10 A: No, not this year. However, in Docket No. 15-KCPE-116-RTS, the Commission
11 approved implementation of a Transmission Delivery Charge (“TDC”) Rider which took
12 effect beginning October 1, 2015. The TDC was designed to collect retail transmission
13 costs and fees from Kansas customers; therefore, beginning with the October 2015
14 projected monthly ECA factor, all retail transmission costs and fees were excluded from
15 our calculation of the projected monthly ECA factors.

16 II. Projected 2022 ECA Versus Actual 2022 ACA

17 **Q: What is the purpose of this portion of your testimony?**

18 A: In this section of my testimony, I will give a high-level comparison of projected 2022
19 ECA to the actual 2022 ACA. I will also give high-level explanations of why actual
20 values varied from projected values. Please note that as ordered by the Commission on
21 June 23, 2022 in the Order Approving Non-Unanimous Stipulation and Agreement in
22 Docket No. 21-EKME-329-GIE, the Company is returning \$37,865,107 in this ACA
23 filing due to favorable off-system sales margins as a result of the mid-February 2021 cold

1 weather event known as Winter Storm Uri. Witness Ms. Elizabeth Herrington provides
2 additional details in her testimony on the variances.

3 **Q: How does the ACA revenue requirement for 2022 compare to the projected ECA**
4 **revenue requirement?**

5 A: The 2022 ACA revenue requirement of \$113.6 million is approximately equal to the
6 projection submitted in December 2021. The ACA revenue requirement is about nine
7 percent lower than the projection in March 2022, roughly seven percent lower than the
8 projection in June 2022, and about three percent lower than the projection in September
9 2022.

10 **Q: How did the projected ECA revenue requirement change over the course of the**
11 **year?**

12 A: When the Company made its ECA submission in December 2021 with its projected
13 values for 2022, it estimated the Net Kansas Allocation of net energy costs for 2022 to be
14 \$113.6 million. The March update reflected a ten percent increase to \$124.9 million. In
15 June, the revenue requirement estimate decreased three percent to \$121.6 million. Then
16 in September, the projected revenue requirement decreased by three percent to \$117.6
17 million. These key values for each of the quarterly submissions are the Estimated Net
18 Kansas Allocation presented in Confidential Schedule JLT-1 2022.

19 **Q: What were the main reasons why the actual revenue requirement varied from the**
20 **projections submitted to the Commission in December 2021, March, June and**
21 **September 2022?**

22 A: The key driver for the variance in the Company's projected filings were changes in
23 market commodity prices, decreased generation availability, and SPP Revenue Neutrality

1 Uplift (“RNU”) charges, which impacted purchased power expense and sales revenue.
2 The actual 2022 purchased power value reflected an almost ** [REDACTED] ** increase as
3 compared to the December 2021 projected estimate, while actual sales revenues were
4 roughly ** [REDACTED] ** higher than the December 2021 projected estimate.

6 III. Evergy Metro’s Fuel Procurement Practices

7 **Q: What is the purpose of this portion of your testimony?**

8 A: In this section of my testimony, I will provide a brief summary of Evergy Metro’s fuel
9 procurement practices.

10 **Q: Please describe how Evergy Metro buys coal.**

11 A: Evergy Metro has been following a strategy of laddering into a portfolio of forward
12 contracts for Powder River Basin (“PRB”) coal. That portfolio consists of coal supply
13 contracts which were entered into at different times leading up to the operating year. The
14 closer Evergy Metro is to a given operating year, the higher the coal commitment
15 percentage will be as compared to expected requirements. When burn projections
16 increase, actual burns prove to be higher than anticipated, or as otherwise needed,
17 supplemental purchases of coal are made on the spot market.

18 **Q: What did that ladder portfolio look like for 2022?**

19 A: In January 2022, Evergy Metro had contractual commitments for about ** [REDACTED] ** percent
20 of its share of expected coal burn requirements for 2022. It also had commitments for
21 about ** [REDACTED] ** percent for 2023 and ** [REDACTED] ** percent for 2024.

1 **Q: Does the Company update its fuel procurement and planning process to adjust for**
2 **changes in the marketplace?**

3 A: Yes. Evergy Metro routinely reviews fuel market conditions and market drivers. We
4 monitor market data, industry publications and consultant reports in an effort to avoid
5 high prices and to take advantage of lower prices.

6 **Q: How does the Company use natural gas?**

7 A: Evergy Metro uses natural gas for multiple purposes. First, Evergy Metro uses natural
8 gas as the ignition fuel and a supplemental fuel for maintaining flame stability in
9 Hawthorn Unit 5. Hawthorn 5 also has the capability to utilize natural gas as a primary
10 fuel in the rare event that coal-fired operations are not available. Second, Evergy Metro
11 uses natural gas-fueled combustion turbines. It also uses natural gas to fuel its combined-
12 cycle plant. Finally, Evergy Metro uses natural gas to increase the peaking capacity of
13 Hawthorn Unit 9 by direct combustion in its heat recovery steam generator. Though the
14 incremental thermal efficiency of direct combustion is lower than that of the base
15 combined-cycle plant, the incremental cost can be lower than the market price for power
16 and the additional electrical output can be valuable during peak load periods.

17 **Q: Please describe how the Company buys natural gas.**

18 A: When natural gas is required the Company solicits multiple offers, compares those offers
19 to its view of the market, if an offer is significantly higher than the Company's view of
20 the market it may challenge the offer, and finally selects the lowest offer.

1 **Q: Has the implementation of Southwest Power Pool’s (“SPP”) Integrated Market**
2 **(“IM”) changed how the Company buys natural gas?**

3 A: Yes. Prior to the implementation of the IM, the Company typically purchased gas before
4 the day of delivery based on published daily gas prices for gas to be delivered the next
5 day. With SPP dispatching units in the IM, the Company’s natural gas units are typically
6 not dispatched until after the next day gas market has stopped trading. Consequently, the
7 Company now purchases most of its natural gas requirements on an intra-day basis.

8 **Q: Has this change in natural gas purchase strategy affected the prices the Company**
9 **pays for natural gas purchases relative to the market?**

10 A: Yes. Evergy Metro generally pays a small premium for intra-day gas.

11 **Q: How does the Company use fuel oil?**

12 A: Evergy Metro uses fuel oil primarily for two purposes. It is used as a peaking fuel at the
13 Northeast station and it is used for start-up and flame management at Iatan and La Cygne.
14 Like natural gas, fuel oil usage for a given day or hour is typically unpredictable.

15 **Q: How does the Company’s use of fuel oil affect how it purchases fuel oil?**

16 A: Somewhat like natural gas, fuel oil is also purchased on an as-required basis. Unlike
17 natural gas, Evergy Metro has fuel oil storage. Therefore, the requirement is more to
18 replenish the station’s inventory or stock up in anticipation of an event. For example, the
19 Company may add to inventory in anticipation of winter weather that might make it
20 difficult for oil to be delivered to a station.

21 **Q: Please describe how the Company buys nuclear fuel.**

22 A: Wolf Creek Nuclear Operating Corporation (“Wolf Creek”) purchases uranium and has it
23 processed for use as fuel in its reactor. This process involves conversion of uranium

1 concentrates to uranium hexafluoride, enrichment of uranium hexafluoride and
2 fabrication of nuclear fuel assemblies. As of December 31, 2022, Wolf Creek has on
3 hand or under contract all of the uranium concentrates required for operation **
4 **, and ** of the uranium enrichment and conversion services required for
5 operation through **. The station also has under contract all of the
6 uranium fuel rod fabrication services required to operate Wolf Creek **.

7 IV. Cost Benefit of SPP IM Consolidated Balancing Authority

8 **Q: What is the purpose of this portion of your testimony?**

9 A: In this section of my testimony, in compliance with the Staff's Report and
10 Recommendation filed January 31, 2017, in Docket No. 16-KCPE-388-ACA, I will
11 provide a brief summary of Evergy Metro's proposed analysis of the benefit of the SPP
12 IM Consolidated Balancing Authority ("CBA") for Evergy Metro customers.

13 **Q: Please describe the CBA.**

14 A: Prior to the SPP IM, each legacy Balancing Authority ("BA") provided a daily schedule
15 of its own load and generation. Therefore, each schedule primarily matched local load to
16 local generation. This could lead to some lower priced generation being passed over on
17 certain hours due to lack of local demand, while at the same time a different legacy
18 Balancing Authority's demand might have to be served by slightly higher priced
19 generation local to its service territory. The CBA takes the responsibility of each legacy
20 BA to balance load and gives it to the SPP for the entire market. In this way, lower cost
21 generation is matched to demand more reliably. The net effect of the CBA reduces total
22 system costs of all market participants.

1 **Q: Is the value derived from the CBA the only benefit from participation in the SPP**
2 **IM?**

3 A: A full cost-benefit analysis is beyond the scope of the Company resources to produce. In
4 response to a KCC Staff data request in 2015, discussions were held to devise a method
5 that attempts to capture a sense of the benefit the SPP IM has provided.

6 **Q: Describe the proposed analysis.**

7 A: What was proposed to meet Staff's data request was to focus on the single market benefit
8 associated with the CBA in the SPP IM structure. This study will not be able to quantify
9 many other benefits of the SPP IM such as increased transmission construction, improved
10 settlements, wind generation improvements, etc. However, this study will look at the
11 resulting Locational Marginal Pricing ("LMP") for the Company's native load
12 improvement as a proxy for the cost/benefit to serve native load by participating in the
13 SPP IM.

14 **Q: Describe how the analysis was conducted.**

15 A: The analysis attempts to compare and quantify the effect of the Company's load and
16 generation being balanced by the CBA as a member of the SPP IM as compared to
17 existing outside of SPP as a stand-alone BA. The Company performed two PROMOD
18 based simulations for calendar year 2022:

- 19 • Simulation 1: Assumes the SPP IM market with CBA for all of SPP for
20 the entire year.
- 21 • Simulation 2: Assumes the Company operates as a stand-alone BA
22 outside of the SPP IM for the full year.

1 To calculate the benefit, the Evergy Metro LMP in each simulation was compared
2 and the change in the cost to serve native load for Evergy Metro was valued. The native
3 load used in this calculation is for both Missouri and Kansas customers.

4 The final results estimate a benefit of ****[REDACTED]**** for customers as shown in
5 the Confidential Schedule JLT-2 2022; however as discussed above, this is not inclusive
6 of the many other benefits that the SPP IM provides. It should be noted that the
7 methodology utilized for this analysis in post-2020 ACA filings is slightly different than
8 that utilized in previous years. Previously, the analysis had assumed that there was an
9 SPP IM or there wasn't. However, given the maturity of the SPP IM since its inception
10 in early 2014, the analysis moved to assuming that if the Company was not a participant
11 in the IM, then we would operate as a stand-alone BA outside of SPP and that the rest of
12 the SPP IM would still exist. At this juncture in the tenure of the SPP IM, it is more
13 likely that absent our participation in the market, the Company would operate as a stand-
14 alone BA as opposed to the dissolution of the SPP IM all together.

15 **Q: Does that conclude your testimony?**

16 **A:** Yes, it does.

EVERGY KANSAS METRO (formerly KCP&L)
ENERGY COST ADJUSTMENT (SCHEDULE ECA)
SUMMARY TOTAL VALUES

Description	Account	December 20, 2021		March 18, 2022		June 20, 2022		September 20, 2022		March 1, 2023 ACA	
		<u>Retail.</u>	<u>OSSM (Wholesale</u>								
		<u>SalesforResale.</u>	<u>Amount)</u>								
<u>BPSnotinOSSM</u>		<u>BPSnotinOSSM</u>		<u>BPSnotinOSSM</u>		<u>BPSnotinOSSM</u>		<u>BPSnotinOSSM</u>		<u>BPSnotinOSSM</u>	
ECA Year 2022											
Fuel											
Fuel - Steam Generation (Coal)	501										
Fuel - Nuclear Generation	518										
Fuel - Other Generation (Oil / Gas)	547										
Total Fuel											
Purchased Power											
Capacity	555										
Energy	555										
Total Purchased Power											
Emissions	509										
Transmission and Fees											
Transmission by Others	565										
SPP Transmission Base Plan Funding	565										
Transmission Fees											
SPP RTO Administrative Fees	561/575										
Other Fees											
FERC Assessment - MISO and SPP	928										
NERC Fees	561										
Total Transmission and Fees											
Bulk Power Sales Revenue											
Capacity	447										
Energy	447										
Miscellaneous Fixed Costs	447										
FERC Required Netting of Sales/Purchases	447										
Total Bulk Power Sales Revenue											
Net Value of ECA Accounts											
Estimated Kansas Allocation											
Estimated Net Kansas Allocation		\$ 113,594,682		\$ 124,919,102		\$ 121,624,833		\$ 117,574,254		\$ 113,593,895	
Projected ECA Revenue (excluding true-up)		\$ 113,601,795		\$ 122,470,650		\$ 117,930,336		\$ 105,838,128		\$ 103,357,906	
Estimated Over (Under) Collection		\$ 7,113		\$ (2,448,452)		\$ (3,694,497)		\$ (11,736,125)		\$ (10,235,988)	

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