

CONFIDENTIAL VERSION

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Certain Schedules Attached to this Testimony Designated
“Confidential” Also Contain Confidential Information.
All Such Information Should Be Treated Confidentially.**

**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 2023 ACTUAL COST ADJUSTMENT (“ACA”)**

DOCKET NO. 24-EKME- 607 -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 Metro, Inc. 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) as well as fuel additive procurement and coal

1 combustion residual product management and marketing for Evergy operated generating
2 stations.

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

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

1 July 2017, I moved into the role of Senior Manager, Fuels & Emissions within the Fuels
2 group.

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

6 **A:** Yes. I have testified before the KCC and the Missouri Public Service Commission. The
7 testimony I gave in those proceedings involved fuel-related issues and issues related to
8 the SPP Integrated Marketplace.

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

10 **A:** I will address four topics:

- 11 ▪ A summary of the information provided in Evergy Kansas Metro’s (“EKM” or
12 “Company”) quarterly ECA submittals made on December 20, 2022, March 20,
13 2023, June 20, 2023, and September 20, 2023, in Docket No. 08-KCPE-677-CPL,
14 Evergy Kansas Metro’s ECA tariff compliance docket;
- 15 ▪ A comparison of the projected 2023 ECA to its 2023 ACA;
- 16 ▪ Fuel procurement planning and practices; and
- 17 ▪ A summary of the cost effects on one part of the Southwest Power Pool
18 Integrated Marketplace, namely the impact on consumer power prices due to the
19 Consolidated Balancing Authority of the IM.

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

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

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

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

3 A: Evergy Kansas Metro's ECA tariff identifies several items that go into the calculation of
4 the ECA factors including fuel and purchased power costs, transmission costs and related
5 fees, emission allowance costs and off-system sales margins ("OSSM"). Starting in
6 December 2007, on or before the 20th day of the month preceding each calendar quarter,
7 the Company submits to the Commission a report containing projected monthly ECA
8 factors on a dollars per kWh basis for each remaining month of the effective ECA year.
9 The Company also submits a report that shows by account the total costs, revenues, and
10 kWh used to calculate the dollars per kWh factors. Starting with the March 2008 report,
11 the Company also compares the original ECA revenue projections and the then-current
12 ECA year-end projections on a total revenue basis.

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

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

20 **II. Projected 2023 ECA Versus Actual 2023 ACA**

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

22 A: In this section of my testimony, I will give a high-level comparison of projected 2023
23 ECA to the actual 2023 ACA. I will also give high-level explanations of why actual

1 values varied from projected values.

2 **Q: How does the ACA revenue requirement for 2023 compare to the projected ECA**
3 **revenue requirement?**

4 A: The 2023 ACA revenue requirement of \$111.4 million is roughly nine percent lower than
5 the projection submitted in December 2022. It is also about eighteen percent lower than
6 the projection in March 2023, roughly ten percent lower than the projection in June 2023,
7 and about six percent lower than the projection in September 2023.

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

10 A: When the Company made its ECA submission in December 2022 with its projected
11 values for 2023, it estimated the Net Kansas Allocation of net energy costs for 2023 to be
12 \$122 million. The March update reflected an eleven percent increase to \$135.7 million.
13 In June, the revenue requirement estimate decreased nine percent to \$123.6 million.
14 Then in September, the projected revenue requirement decreased by four percent to
15 \$118.2 million. These key values for each of the quarterly submissions are the Estimated
16 Net Kansas Allocation presented in Confidential Schedule JLT-1 2023.

17 **Q: What were the main reasons why the actual revenue requirement varied from the**
18 **projections submitted to the Commission in December 2022, March, June and**
19 **September 2023?**

20 A: The key drivers for the variance in the Company's projected filings were changes in
21 market commodity prices, increased actual load demand, availability of fossil fuel
22 generation, and higher than projected Contract Costs, which impacted purchased power
23 expense and sales revenue. The actual 2023 purchased power value reflected an almost

1 **[REDACTED]** increase as compared to the December 2022 projected estimate, while
2 actual sales revenues were roughly **[REDACTED]** higher than the December 2022
3 projected estimate.

4 **III. Evergy Metro’s Fuel Procurement Practices**

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

6 A: In this section of my testimony, I will provide a brief summary of Evergy Metro’s
7 (“EM”) fuel procurement practices.

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

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

16 **Q: What did that ladder portfolio look like for 2023?**

17 A: In January 2023, Evergy Metro had contractual commitments for about **[REDACTED]** percent
18 of its share of expected coal burn requirements for 2023. It also had commitments for
19 about **[REDACTED]** percent for 2024, **[REDACTED]** percent for 2025, **[REDACTED]** percent for 2026 and
20 **[REDACTED]** percent for 2027.

21 **Q: Does Evergy Metro update its fuel procurement and planning process to adjust for
22 changes in the marketplace?**

23 A: Yes. EM routinely reviews fuel market conditions and market drivers. We monitor

1 market data, industry publications and consultant reports in an effort to avoid high prices
2 and to take advantage of lower prices.

3 **Q: How does Evergy Metro use natural gas?**

4 A: EM uses natural gas for multiple purposes. First, EM uses natural gas as the ignition fuel
5 and a supplemental fuel for maintaining flame stability in Hawthorn Unit 5. Hawthorn
6 5 also has the capability to utilize natural gas as a primary fuel in the rare event that coal-
7 fired operations are not available. Second, Evergy Metro uses natural gas-fueled
8 combustion turbines. It also uses natural gas to fuel its combined-cycle plant. Finally,
9 EM uses natural gas to increase the peaking capacity of Hawthorn Unit 9 by direct
10 combustion in its heat recovery steam generator. Though the incremental thermal
11 efficiency of direct combustion is lower than that of the base combined-cycle plant, the
12 incremental cost can be lower than the market price for power and the additional
13 electrical output can be valuable during peak load periods.

14 **Q: Please describe how the Evergy Metro buys natural gas.**

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

18 **Q: Has the implementation of the SPP IM changed how Evergy Metro buys natural
19 gas?**

20 A: Yes. Prior to the implementation of the IM, Evergy Metro typically purchased gas before
21 the day of delivery based on published daily gas prices for gas to be delivered the next
22 day. With SPP dispatching units in the IM, EM's natural gas units are typically not

1 dispatched until after the next day gas market has stopped trading. Consequently, EM
2 now purchases most of its natural gas requirements on an intra-day basis.

3 **Q: Has this change in natural gas purchase strategy affected the prices EM pays for**
4 **natural gas purchases relative to the market?**

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

6 **Q: How does Evergy Metro use fuel oil?**

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

10 **Q: How does Evergy Metro's use of fuel oil affect how it purchases fuel oil?**

11 A: Somewhat like natural gas, fuel oil is also purchased on an as-required basis. Unlike
12 natural gas, Evergy Metro has fuel oil storage. Therefore, the requirement is more to
13 replenish the station's inventory or stock up in anticipation of an event. For example,
14 EM may add to inventory in anticipation of winter weather that might make it difficult
15 for oil to be delivered to a station.

16 **Q: Please describe how nuclear fuel is purchased.**

17 A: Wolf Creek Nuclear Operating Corporation ("Wolf Creek") purchases uranium and has it
18 processed for use as fuel in its reactor. This process involves conversion of uranium
19 concentrates to uranium hexafluoride, enrichment of uranium hexafluoride and
20 fabrication of nuclear fuel assemblies. As of December 31, 2023, Wolf Creek has on
21 hand or under contract all of the uranium concentrates required for operation **
22 ***, and ***** of the uranium enrichment and conversion services required for

1 operation **[REDACTED]**. The station also has under contract all of the uranium fuel
2 rod fabrication services required to operate Wolf Creek **[REDACTED]**.

3 **IV. Cost Benefit of SPP IM Consolidated Balancing Authority**

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

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

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

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

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

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

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

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

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

10 A: The analysis attempts to compare and quantify the effect of EM's load and generation
11 being balanced by the CBA as a member of the SPP IM as compared to existing outside
12 of SPP as a stand-alone BA. Two PROMOD based simulations for calendar year 2023
13 were performed:

- 14 • Simulation 1: Assumes the SPP IM market with CBA for all of SPP for
15 the entire year.
- 16 • Simulation 2: Assumes Evergy entities operate as a stand-alone BA
17 outside of the SPP IM for the full year.

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

21 The final results estimate a benefit of ** [REDACTED] ** for customers as shown in
22 the Confidential Schedule JLT-2 2023; however as discussed above, this is not inclusive
23 of the many other benefits that the SPP IM provides. It should be noted that the

1 methodology utilized for this analysis in post-2020 ACA filings is slightly different than
2 that utilized in previous years. Previously, the analysis had assumed that there was an
3 SPP IM or there wasn't. However, given the maturity of the SPP IM since its inception
4 in early 2014, the analysis has moved to assuming that if the Evergy operating entities
5 were not participants in the IM, then we would operate as a stand-alone BA outside of
6 SPP and that the rest of the SPP IM would still exist. At this juncture in the tenure of the
7 SPP IM, it is more likely that absent our participation in the market, we would operate as
8 a stand-alone BA as opposed to the dissolution of the SPP IM all together.

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

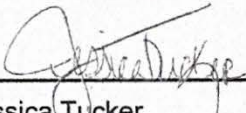
10 **A:** Yes, it does.

PUBLIC

STATE OF KANSAS)
) ss:
COUNTY OF SHAWNEE)

VERIFICATION

Jessica Tucker, being duly sworn upon her oath deposes and states that she is the Senior Manager, Fuels and Emissions, for Evergy, Inc., that she has read and is familiar with the foregoing Direct Testimony, and attests that the statements contained therein are true and correct to the best of her knowledge, information and belief.



Jessica Tucker

Subscribed and sworn to before me this 1st day of March, 2024.



Notary Public

My Appointment Expires May 30, 2026



EVERGY KANSAS METRO
ENERGY COST ADJUSTMENT (SCHEDULE ECA)
SUMMARY TOTAL VALUES

Description	Account	December 20, 2022		March 20, 2023		June 20, 2023		September 20, 2023		March 1, 2024 ACA	
		<u>Retail.</u> <u>SalesforResale.</u> <u>BPSnotinOSSM</u>	<u>OSSM (Wholesale</u> <u>Amount)</u>	<u>Retail.</u> <u>SalesforResale.</u> <u>BPSnotinOSSM</u>	<u>OSSM (Wholesale</u> <u>Amount)</u>	<u>Retail.</u> <u>SalesforResale.</u> <u>BPSnotinOSSM</u>	<u>OSSM (Wholesale</u> <u>Amount)</u>	<u>Retail.</u> <u>SalesforResale.</u> <u>BPSnotinOSSM</u>	<u>OSSM (Wholesale</u> <u>Amount)</u>	<u>Retail.</u> <u>SalesforResale.</u> <u>BPSnotinOSSM</u>	<u>OSSM (Wholesale</u> <u>Amount)</u>
ECA Year 2023											
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											
Cost for Non Asset Based Sales											
Net Value of ECA Accounts											
Estimated Kansas Allocation											
Estimated Net Kansas Allocation		\$ 122,053,416		\$ 135,717,418		\$ 123,625,477		\$ 118,234,065		\$ 111,439,298	
Projected ECA Revenue (excluding true-up)		\$ 122,042,763		\$ 127,538,304		\$ 121,166,204		\$ 108,767,286		\$ 105,445,961	
Estimated Over (Under) Collection		\$ (10,653)		\$ (8,179,114)		\$ (2,459,273)		\$ (9,466,780)		\$ (5,993,338)	

EVERGY KANSAS METRO
ENERGY COST ADJUSTMENT (SCHEDULE ECA)

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