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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 2024 ACTUAL COST ADJUSTMENT ("ACA")

DOCKET NO. 25-EKME-____-ACA

Q: Please state your name and business address.

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

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

A: I am employed by Evergy Metro, Inc. as Senior Manager, Fuels and Emissions.

Q: What are your responsibilities?

A: My primary responsibilities include management and oversight of fuel procurement and logistics (apart from natural gas) as well as fuel additive procurement and coal

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

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

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

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

Q: Have you previously testified in a proceeding at the Kansas Corporation Commission ("KCC" or "Commission") or before any other utility regulatory agency?

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

Q: On what subjects will you be testifying?

A: I will address four topics:

- A summary of the information provided in Evergy Kansas Metro's ("EKM" or "Company") quarterly ECA submittals made on December 20, 2023, March 20, 2024, June 20, 2024, and September 20, 2024, in Docket No. 08-KCPE-677-CPL, Evergy Kansas Metro's ECA tariff compliance docket;
- A comparison of the projected 2024 ECA to its 2024 ACA;
- Fuel procurement planning and practices: and
- A summary of the cost effects on one part of the Southwest Power Pool Integrated Marketplace, namely the impact on consumer power prices due to the Consolidated Balancing Authority of the IM.

I. Information Provided in Quarterly ECA Submittals

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

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

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

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

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

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

II. Projected 2024 ECA Versus Actual 2024 ACA

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

A: In this section of my testimony, I will give a high-level comparison of projected 2024 ECA to the actual 2024 ACA. I will also give high-level explanations of why actual

values varied from projected values.

Q: How does the ACA revenue requirement for 2024 compare to the projected ECA revenue requirement?

A: The 2024 ACA revenue requirement of $118.2 million is roughly six percent lower than the projection submitted in December 2023. It is also about thirteen percent lower than the projection in March 2024, roughly seven percent lower than the projection in June 2024, and about eight percent lower than the projection in September 2024.

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

A: When the Company made its ECA submission in December 2023 with its projected values for 2024, it estimated the Net Kansas Allocation of net energy costs for 2024 to be $125.7 million. The March update reflected a nine percent increase to $136.5 million. In June, the revenue requirement estimate decreased seven percent to $126.7 million. In September, the revenue requirement estimate increased by one percent to $128.1 million. These key values for each of the quarterly submissions are the Estimated Net Kansas Allocation presented in Confidential Schedule JLT-1 2024.

Q: What were the main reasons why the actual revenue requirement varied from the projections submitted to the Commission in December 2023, March 2024, June 2024 and September 2024?

A: The key drivers for the variance in the Company's projected filings were changes in market commodity prices, variability in load demand, and availability of fossil fuel generation which impacted purchased power expense and sales revenue. The actual 2024 purchased power value reflected a ** [redacted] increase as compared to

the December 2023 projected estimate, while actual sales revenues were roughly ** [redacted] ** higher than the December 2023 projected estimate.

III. Evergy Metro's Fuel Procurement Practices

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

A: In this section of my testimony, I will provide a brief summary of Evergy Metro's ("EM") fuel procurement practices.

Q: Please describe how Evergy Metro buys coal.

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

Q: What did that laddered portfolio look like for 2024?

A: In January 2024, Evergy Metro had contractual commitments for about ** [redacted] ** percent of its share of expected coal burn requirements for 2024. It also had commitments for about ** [redacted] ** percent for 2025, ** [redacted] ** percent for 2026, ** [redacted] ** percent for 2027 and ** [redacted] ** percent for 2028.

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

A: Yes. EM routinely reviews fuel market conditions and market drivers. We monitor market data, industry publications and consultant reports in an effort to avoid high prices

and to take advantage of lower prices.

Q: How does Evergy Metro use natural gas?

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

Q: Please describe how Evergy Metro buys natural gas.

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

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

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

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

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

Q: How does Evergy Metro use fuel oil?

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

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

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

Q: Please describe how nuclear fuel is purchased.

A: Wolf Creek Nuclear Operating Corporation ("Wolf Creek") purchases uranium and has it processed for use as fuel in its reactor. This process involves conversion of uranium concentrates to uranium hexafluoride, enrichment of uranium hexafluoride and fabrication of nuclear fuel assemblies. As of December 31, 2024, Wolf Creek has on hand or under contract all of the uranium concentrates required for operation ** [redacted] ** with requirements for the ** [redacted] **. The station also has ** [redacted] ** of the uranium enrichment and conversion services required

for operation ** [redacted] ** and has under contract all of the uranium fuel rod fabrication services required to operate Wolf Creek ** [redacted] **.

IV. Cost Benefit of SPP IM Consolidated Balancing Authority

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

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

Q: Please describe the CBA.

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

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

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

Q: Describe the proposed analysis.

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

Q: Describe how the analysis was conducted.

A: The analysis attempts to compare and quantify the effect of EM's load and generation being balanced by the CBA as a member of the SPP IM as compared to existing outside of SPP as a stand-alone BA. Two PROMOD based simulations for calendar year 2024 were performed:

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

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

The final results estimate a benefit of ** [redacted] ** for customers as shown in the Confidential Schedule JLT-2 2024; however as discussed above, this is not inclusive of the many other benefits that the SPP IM provides. It should be noted that

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

Q: Does that conclude your testimony?

A: Yes, it does.

STATE OF KANSAS)
) ss:
COUNTY OF SHAWNEE)

VERIFICATION

Jessica Tucker, being duly sworn upon her oath deposes and states that she is the Sr 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 28th day of February 2025.

Notary Public

My Appointment Expires: May 30, 2026

NOTARY PUBLIC - State of Kansas
LESLIE R. WINES
MY APPT. EXPIRES 5/30/2026

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

Submittal Date:	December 20, 2023	March 20, 2024	June 20, 2024	September 20, 2024	February 28, 2025
	ECA Year 2024	**ECA Year 2024**	**ECA Year 2024**	**ECA Year 2024**	**ACA Year 2024**
Fuel					
Fuel - Steam Generation (Coal)					
Fuel - Nuclear Generation					
Fuel - Other Generation (Oil / Gas)					
Total Fuel					
Purchased Power					
Capacity Demand Purchases					
Energy Purchases					
Total Purchased Power					
Emissions & RECs					
Transmission not recovered thru TDC					
Administrative Fees					
Transmission Base Plan Funding					
Other Transmission costs					
FERC Assessment fees					
Total Transmission					
Off-System Sales Revenue					
Capacity Demand Sales					
Energy Sales					
Total Off-System Sales Revenue					
Net Value of ECA Accounts ((F + P + E + T) - OSSR)					
Estimated Net Kansas Allocation					
Net Kansas Cost	**$ 125,715,129**	**$ 136,484,441**	**$ 126,688,546**	**$ 128,115,742**	**$ 118,162,366**
Projected ECA Revenue (excluding true-up)	$ 125,715,487	$ 126,555,396	$ 125,805,020	$ 125,981,041	$ 120,835,457
Estimated Over (Under) Collection	**$ 358**	**$ (9,929,045)**	**$ (883,526)**	**$ (2,134,700)**	**$ 2,673,091**

SCHEDULE JLT-2

Evergy Kansas Metro (formerly KCP&L)

Energy Cost Adjustment (SCHEDULE ECA)

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