Exhibit No.:	
Issue:	Operations, Distribution, & Transmission Costs; Storm Reserve
Witness:	Ryan Mulvany
Type of Exhibit:	Direct Testimony
Sponsoring Party:	Evergy Missouri Metro
Case No.:	ER-2026-0143
Date Testimony Prepared:	February 6, 2026

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2026-0143

DIRECT TESTIMONY

OF

RYAN MULVANY

ON BEHALF OF

EVERGY MISSOURI METRO

Kansas City, Missouri

February 2026

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DIRECT TESTIMONY

OF

RYAN MULVANY

Case No. ER-2026-0143

I. INTRODUCTION

Q: Please state your name and business address.

A: My name is Ryan P. Mulvany. My business address is 1200 Main, Kansas City, Missouri 64105.

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

A: I am employed by Evergy Metro, Inc. and serve as Vice President Distribution – Power Delivery Administration for Evergy Metro, Inc. d/b/a as Evergy Missouri Metro ("Evergy Missouri Metro," "EMM," or the "Company"), Evergy Missouri West, Inc. d/b/a Evergy Missouri West ("Evergy Missouri West"), Evergy Metro, Inc. d/b/a Evergy Kansas Metro ("Evergy Kansas Metro"), and Evergy Kansas Central, Inc. and Evergy South, Inc., collectively d/b/a as Evergy Kansas Central ("Evergy Kansas Central") the operating utilities of Evergy, Inc. ("Evergy").

Q: Who are you testifying for?

A: I am testifying on behalf of Evergy Missouri Metro.

Q: What are your responsibilities?

A: My responsibilities include oversight of construction, operation, and maintenance functions for distribution throughout Evergy, Inc.'s jurisdictional territories. This includes the execution of distribution projects identified as part of Evergy's capital plan, as well as all customer outage restoration field activities.

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

A: I received a bachelor's degree with a major in Business Administration from University of Kansas in 2001 and a master's degree in business administration in 2006. I began my career as a Staff Auditor for the Kansas Corporation Commission ("KCC") in 2001. I have worked for Evergy (including one of its predecessors, KCP&L) since 2003. During my tenure with the Company, I have gained broad experience across many functions in both administrative areas and utility operations. My present position is Vice President, Distribution, which includes responsibility for all distribution plant and operations.

Q: Have you previously testified in a proceeding at the Missouri Public Service Commission ("PSC" or "Commission") or before any other utility regulatory agency?

A: Yes, I have previously testified before the PSC in Evergy Missouri West's most recent rate case No. ER-2024-0189.

Q: What is the purpose of your direct testimony?

A: My testimony (1) describes EMM's distribution systems; (2) identifies and discusses reliability performance; (3) describes specific challenges to maintaining and/or improving EMM's distribution system reliability; (4) explains our distribution system investment strategy and the underlying process for selecting projects based on affordability and maximizing customer value; (5) identifies the major investments and programs that are the product of this strategic process; (6) discusses EMM's external review process for its distribution assets and urges approval of a storm reserve for EMM.

II. DISTRIBUTION SYSTEM: MAGNITUDE, COMPONENTS, & PERFORMANCE

Q: Please describe the major components of Evergy Missouri Metro's distribution system.

A: Evergy Missouri Metro's distribution system includes approximately 5,730 line-miles, 145,685 distribution poles, 42,563 overhead distribution transformers, and 28,972 underground distribution transformers. EMM serves more than 313,000 retail customers.

Q: What is the average age of EMM's distribution assets?

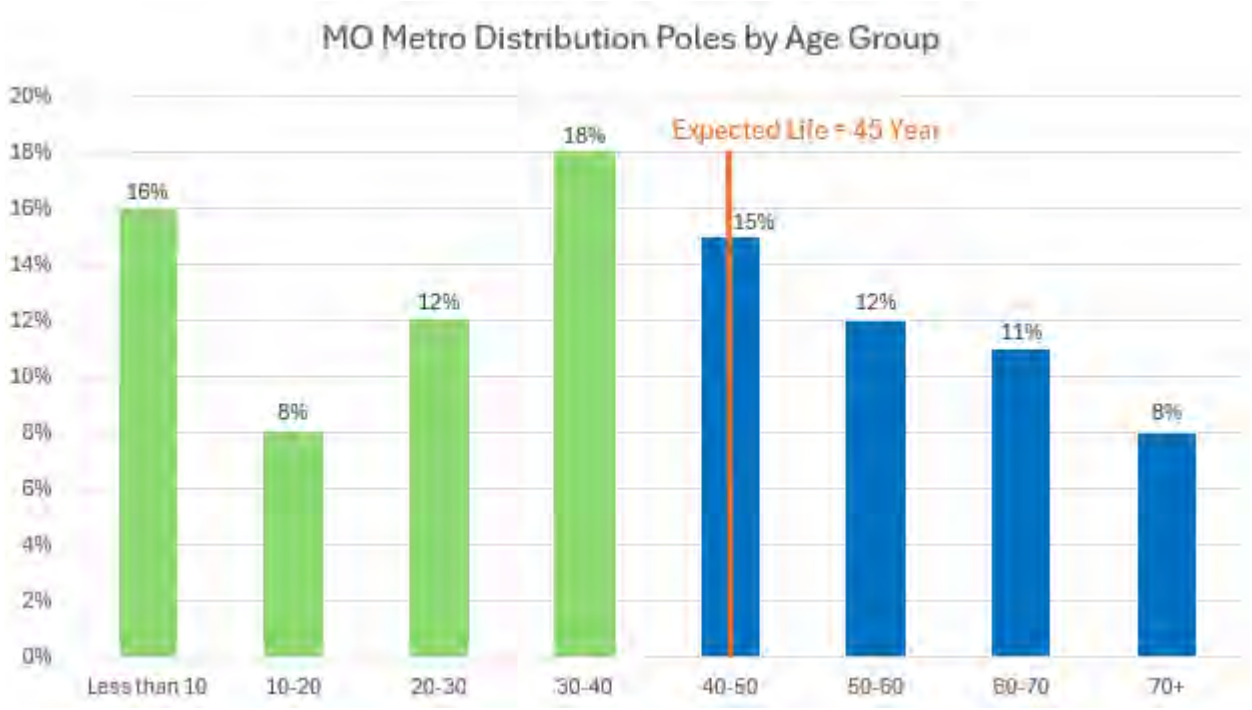
A: **Table 1** below shows the average age of essential asset types (conductors, poles, and transformers) for EMM, as well as the expected lives of those asset types.

Table 1: Average Age and Expected Life of Key Asset Types for EMM

Asset Type	Average Age (Years)	Expected Life (Years)
Overhead Conductors	36	30
Underground Conductors	24	30
Poles	37	40-45
Overhead Transformer	30	20
Underground Transformers	29	20

Figure 1 below contains a more granular display of the age of distribution poles by a 10-year age grouping.

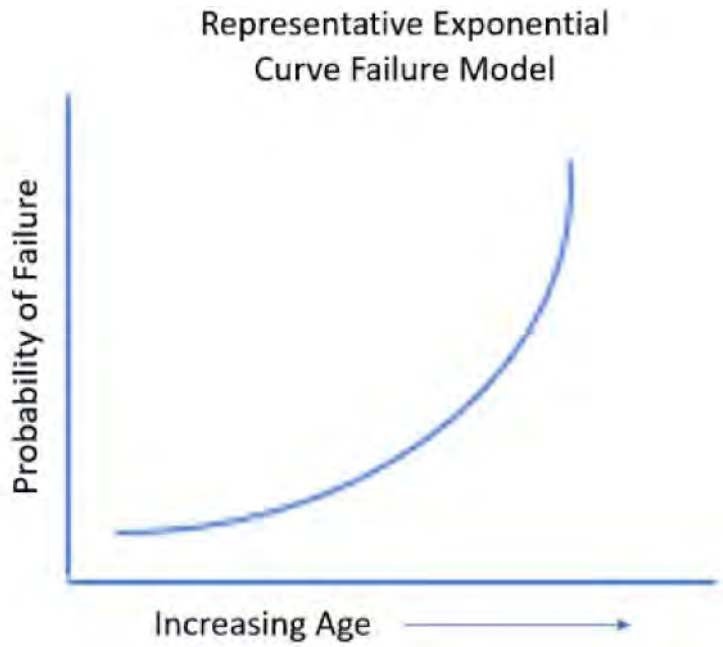
Figure 1: Missouri Metro Distribution Pole Age Grouping



Q: Does the age of key distribution assets affect reliability of performance?

A: Yes. A common characteristic of all asset classes is that the rate of failure increases dramatically as they age, ultimately occurring at an exponential rate. An illustration of an exponential failure curve is displayed in **Figure 2** below.

Figure 2: Failure Curve



To avoid the negative age-driven impacts on system reliability, assets should be replaced at a pace that stays ahead of their respective failure curves. Accomplishing this objective in a manner that is consistent with EMM's focus on affordability and maximizing customer value is an important element of our distribution system investment strategy.

Q: Historically, has Evergy Missouri Metro's investment in distribution assets been adequate to address the problem of aging distribution infrastructure?

A: EMM's level of investment in distribution assets has not kept pace with the aging distribution infrastructure. As shown in **Table 1**, the average age of many key distribution assets is beyond the expected lives of those assets.

III. RELIABILITY PERFORMANCE MEASURES AND CHALLENGES

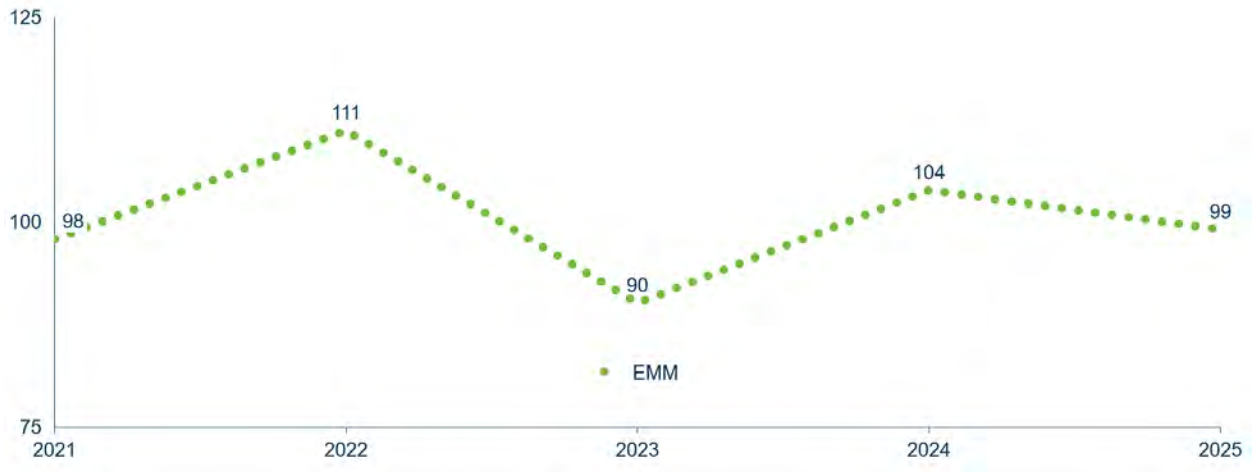
Q: What industry metrics are generally utilized to assess an electric utility's reliability performance?

A: The most common industry metric used to track a utility's reliability performance is the System Average Interruption Duration Index ("SAIDI"). SAIDI measures the total duration of the average customer interruption. SAIDI reflects both the frequency and duration of service interruptions, its two primary components are the Customer Average Interruption Duration Index ("CAIDI") and the System Average Interruption Frequency Index ("SAIFI"). CAIDI measures the average time to restore a service and SAIFI measures how often customers, on average, experience a sustained service interruption over a predefined period. Multiplying CAIDI and SAIFI generates the Company's SAIDI which provides a comprehensive view of the customer experience.

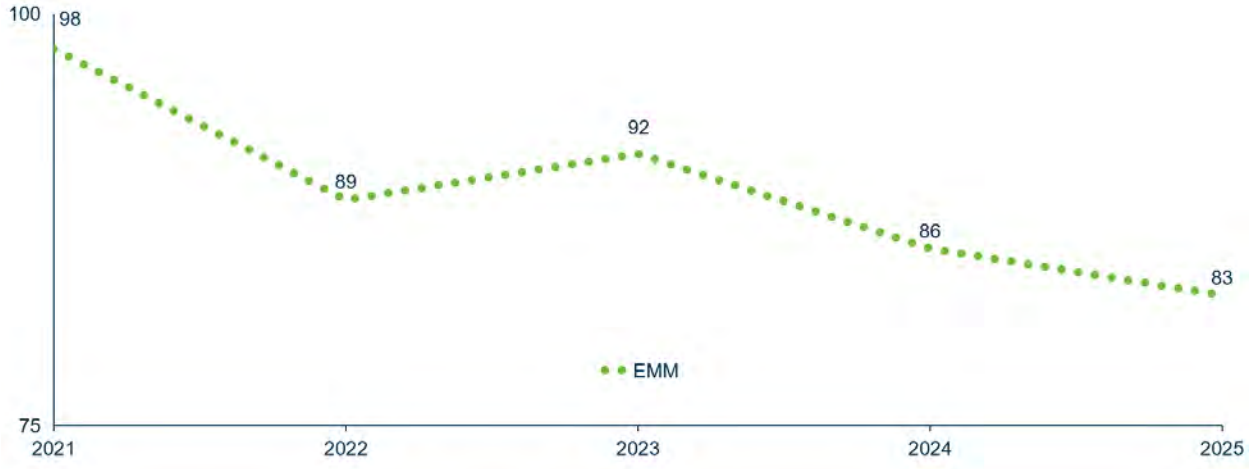
Q: What are the historical reliability metrics for Evergy Missouri Metro?

A: Historical SAIDI, CAIDI, and SAIFI performance for Evergy Missouri Metro are shown in **Figure 3** below:

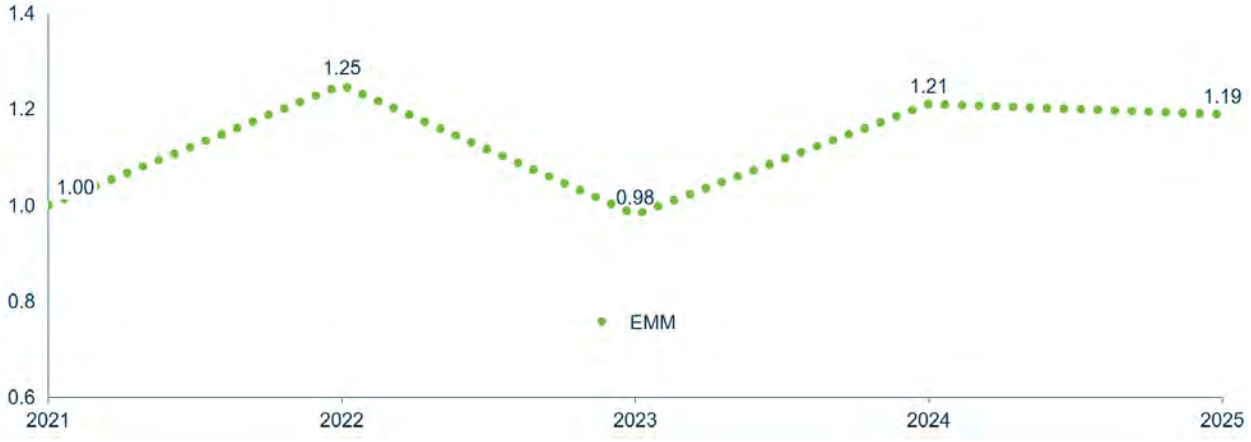
Figure 3: Historical IEEE Normalized SAIDI



Historical IEEE Normalized CAIDI



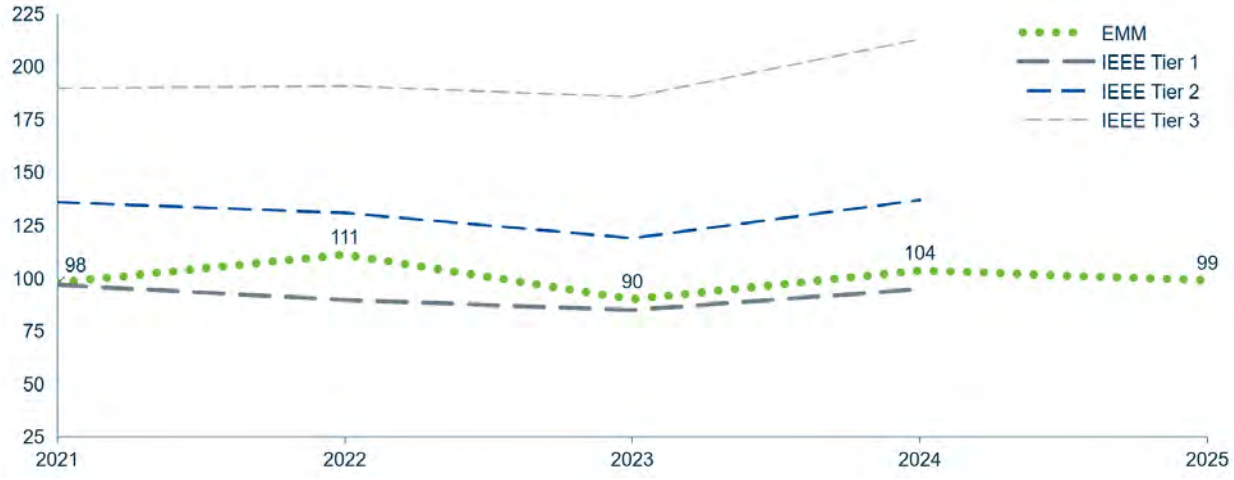
Historical IEEE Normalized SAIFI



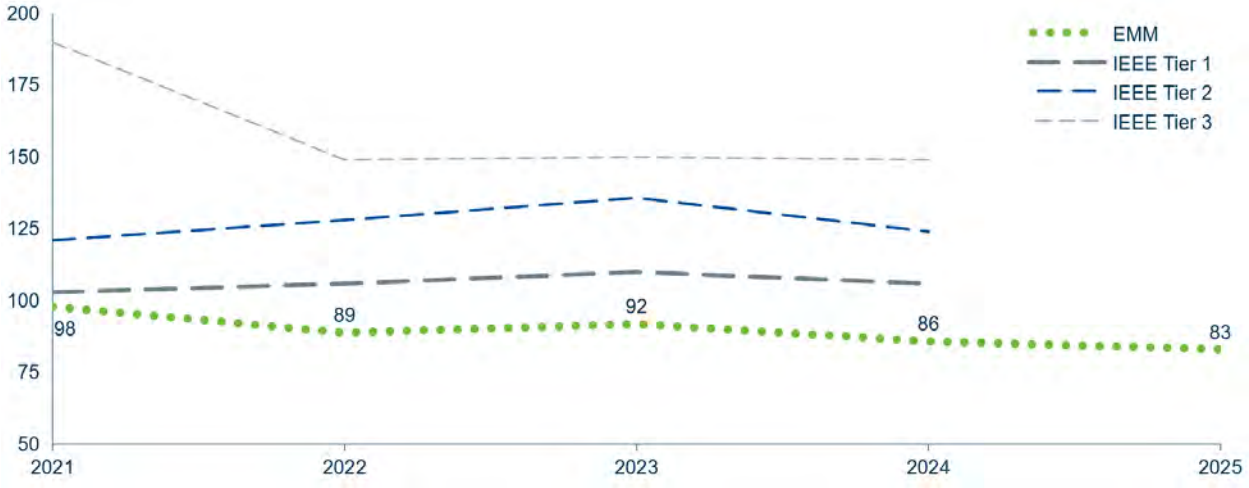
Q: What are the historical reliability metrics for Evergy Missouri Metro compared to IEEE benchmarking?

A: Historical SAIDI, CAIDI, and SAIFI performance for Evergy Missouri Metro compared to IEEE benchmarking is shown in the **Figure 4** below:

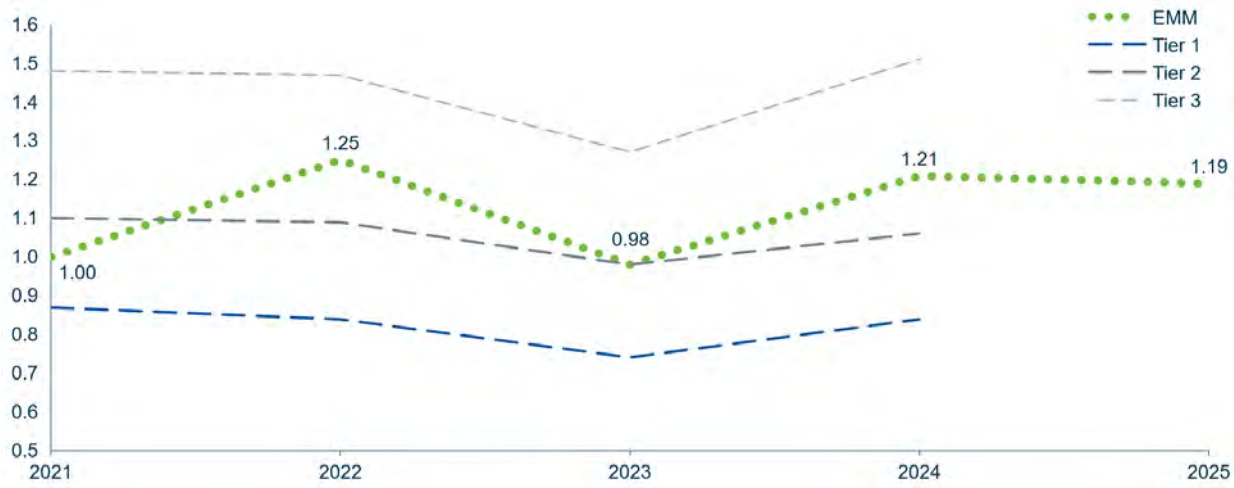
Figure 4: Historical IEEE Normalized SAIDI Comparison



Historical IEEE Normalized CAIDI Comparison



Historical IEEE Normalized SAIFI Comparison



Q: How has EMM's SAIDI performance compared historically with the industry generally?

A: Reliability benchmarking shows that EMM's SAIDI performance has consistently demonstrated strong results when compared to the industry at large. EMM has remained within Tier 2 normalized SAIDI performance levels compared to peer utilities over the past five years, and at times trended towards Tier 1.

Q: How has EMM's CAIDI performance compared historically with the industry generally?

A: Reliability benchmarking shows that EMM's CAIDI performance has consistently demonstrated exemplary results when compared to the industry at large. EMM has delivered Tier 1 performance over the past five years, which represents the best-performing utilities in the industry.

Q: How has EMM's SAIFI performance compared historically with the industry generally?

A: Reliability benchmarking shows that EMM's SAIFI performance has been less favorable than its CAIDI performance historically. EMM's SAIFI has fluctuated over the past five years, alternating between Tier 2 and Tier 3 performance levels.

Q: What trends do you draw from these metrics?

A: Two trends emerge from comparing EMM's CAIDI, SAIFI, and SAIDI performance over the last five years. First, EMM has consistently demonstrated strong performance in limiting the duration of outages, as reflected in its CAIDI performance. EMM's superior restoration time can largely be attributed to the urban configuration which allows for shorter geographical distances to travel as well as manpower and grid flexibility. Second, while customers are experiencing shorter outage durations, SAIFI indicates that customers are experiencing more frequent outages. This variability shows that the frequency of interruptions has been more challenging to control. Even though SAIFI performance has historically been Tier 2 or Tier 3, EMM's top-tier CAIDI performance mitigates that impact of these interruptions, resulting in a strong overall reliability performance. These trends highlight the importance of continued investment hardening the grid to withstand major storm impacts and proactive aging asset replacement.

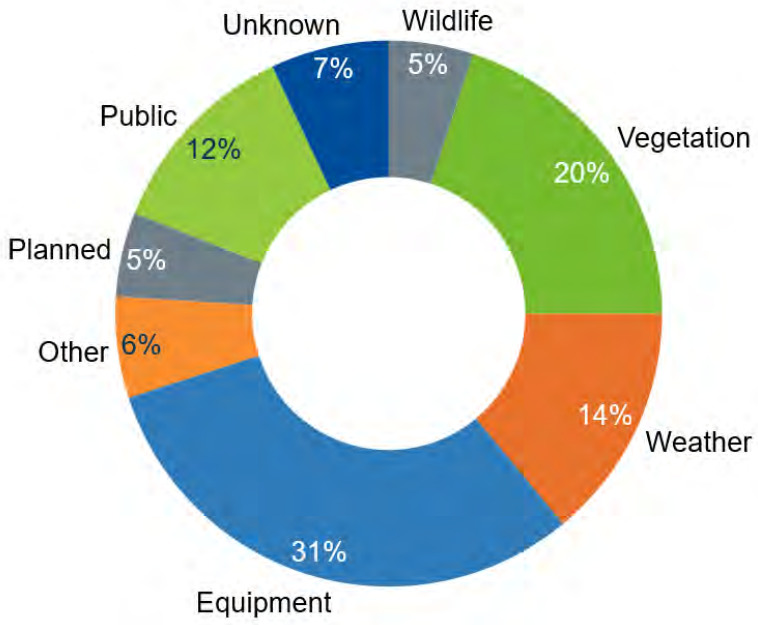
Q: What are the most significant factors affecting Evergy Missouri Metro's reliability performance?

A: There are a number of factors that affect the Company's reliability performance. As discussed, the age of assets is a significant factor. Other significant factors include weather, vegetation management, asset condition and maintenance, response times, and various

impacts from the public and wildlife. **Figure 5** below shows the relative percentage of customer outages by cause for EMM in the past five years.

Figure 5: Drivers of Customer Outage by Cause – 5 Year Average

Institute of Electrical and Electronics Engineers (IEEE) normalized percent of EMM SAIFI



Q: Are there any new additional factors affecting EMM's reliability performance since its last rate case No. ER-2022-0129?

A: There have been no new factors affecting EMM's reliability performance since its last rate case, No. ER-2022-0129. As discussed by Zac Gladhill, Darrin Ives, and Kevin Gunn, while large load customers, such as data centers, have emerged as significant contributors to overall system demand and can impact the broader transmission grid, these customers have not introduced any adverse effects on system reliability.

Q: What specific challenges do you perceive in maintaining and strategically improving EMM's system reliability and overall quality of service?

A: From the distribution perspective there are three broad challenges the Company must address to continue meeting the reliability and service expectations of EMM's customers: (1) managing and replacing aging infrastructure; (2) improving EMM's ability to withstand more severe weather patterns; (3) efficiently deploying new cost-effective technologies that enhance outage performance and improve our predictive maintenance capabilities. EMM's ability to meet these challenges is largely investment dependent.

IV. DISTRIBUTION SYSTEM INVESTMENT STRATEGY & PROCESS

Q: Please describe EMM's asset management strategy.

A: EMM has a systematic annual investment planning process that the Company utilizes to develop its updated capital investment plan. Identification of specific distribution investments is also part of EMM's ongoing budget planning process. This investment planning is summarized in the chart attached as **Schedule RM**-1.

Q: How are these projects prioritized?

A: EMM's asset management strategy is to minimize or prevent customer outages by identifying high-impact assets that can be maintained or replaced prior to failure. Ranking methodologies have been developed based on data and analytics to support the identification of lines, circuits, laterals, substations, and individual assets at risk. These methodologies utilize asset data, such as age, manufacturer model, and conditions, gathered through inspections and testing, historical outage information, and various other inputs. Risk scores are used to prioritize individual asset replacement and as inputs to prioritize larger capital projects. Projects can have a variety of benefits, from improving system resiliency through the addition of contingency options to replacing aged assets. Projects

are scored across several differently weighted value dimensions to create an overall score that can be used to gauge the relative benefits provided by various multi-faceted projects. The benefit categories used in calculating these scores are outlined below:

- Customer reliability: The Customer Reliability score is based on a composite of Asset Criticality, Health and Risk, Power Quality Impacts, Risk of Potential Overload, and Availability of Contingency. Transmission projects also incorporate the benefits of relieving congestion.
- Public Impact: The Public Impact score includes potential benefits for critical customers or mitigation of public impact risks (e.g., environmental events).
- Employee Benefits: The Employee Benefit score focuses on reducing employee safety risk and improving workforce productivity.
- Growth & Technology: The Growth & Technology score measures the potential benefits of implementing new, strategic technologies, such as automation and AI, or supporting initiatives in some way (e.g., conversion to standard voltages).
- Financial: The Financial score measures the net present value revenue requirement ("NPVRR") and net income. These financial metrics are still being refined and do not currently impact the relative score of distribution projects because they essentially offset each other. Fundamentally, they are meant to represent the customer cost impact (revenue requirement) and the net income impact of capital expenditures.

Q: Please describe the major program initiatives directed toward economically improving distribution system reliability that are the product of Evergy Missouri Metro's annual planning process.

A: There are multiple programs that support improving distribution system reliability:

- Lateral Improvement Program: This program targets aging infrastructure and excessive lateral outage events as well as customer complaints related to those events. A risk-based investment model (AssetLens) was developed to identify overhead distribution primary conductor and poles for replacement. The model uses several sources of data including asset characteristics, asset condition, and historical outage information.
- Wood Pole Life Extension and Replacement Program: This program focuses on wood pole replacement or reinforcement based on the results of intrusive wood pole inspections. These inspections are on a 12-year cycle. The intrusive inspection includes ground line inspection via soil excavation, bore/plug, and chemical treatment. This program improves the reliability and resiliency of EMM's system by replacing poles identified as having an increased risk of failure.
- The Proactive Cable Replacement/Rehabilitation Program: This program targets directed buried underground residential distribution ("URD") primary cables that are identified as having an elevated risk of failure based on historical cable failure analysis. The program targets high-risk URD cables based on age, condition, performance, and various other factors. High-risk cable segments are evaluated using partial discharge testing or

cable injections to determine the cable's condition. Cable segments are selected for replacement based on the results of these tests. Replacement of high-risk cable segments prevents failures on the system and reduces customer outage minutes.

- The Manhole Vault Top Replacement Program: This program focuses on degraded underground manhole ceilings identified during detailed manhole inspections. Replacement of degraded manhole vault tops prevents damage to installed underground electrical equipment and reduces public safety concerns.
- The Network Rehabilitation Program: This program uses EMM's knowledge and results from the detailed manhole inspections to identify structures for replacement or remediation. EMM uses an independent contractor who is an expert in manhole restoration and high-voltage electrical repairs. The work is prioritized based on the greatest risk to worker/public safety and impact to customer reliability.
- The High Outage Count Customers Program: This program, also known as the "Worst Performing Circuit" program, is a circuit-based program that addresses service reliability issues associated with customers experiencing high outage counts under Commission standards. EMM identifies high outage count customers, investigates their outage events, and develops solutions to improve their circuit reliability. Analyzing annual outage management system records and field inspection results assists in

understanding root causes and ensuing action required to mitigate future incidents.

- The Customers Experiencing Multiple Interruptions ("CEMI") Improvement Program: This program focuses on making repairs and improvements for customers experiencing six or more interruptions over a 12-month period. Interruption cause code data is analyzed to determine the root causes and appropriate corrective actions required to mitigate future incidents.
- The Feeder Improvement Program: This program was launched in 2022. This program targets high-risk feeder segments identified through data driven tools like AssetLens. Corrective actions that will be considered include undergrounding, rebuilding, and reconductoring.

Q: How have EMM customers benefited from increased investment in distribution assets?

A: There will be multiple customer benefits from increased distribution investment. As discussed by Darrin Ives, these benefits include lower operating costs, upgraded system visibility for quicker outage response times, and improved asset data quality to enable predictive maintenance (e.g., systematic and timely replacement of aging infrastructure), and reducing energy losses experience in older equipment and assets.

V. STORM RESERVE

Q: Is EMM proposing the establishment of a storm reserve?

A: Yes. The reserve would provide a systematic method to collect revenues to be used for extraordinary storm operating and maintenance expenses. The adequacy of the reserve

would be reviewed in each general rate proceeding. In this proceeding, the Company is requesting to establish a storm reserve for EMM.

Q: How does the storm reserve benefit customers and the utility?

A: The reserve benefits customers by smoothing major storm expenses year-over-year for recovery in rates over time. This smoothing of storm expenses creates less rate volatility from rate case to rate case and helps stabilize the cost of these events in customer rates. The unpredictable nature of storms and the amount of destruction they cause create volatility in expenses. A storm reserve helps flatten the effect of these events in customer rates. The reserve also eliminates the possibility of the Company over-collecting for storm costs if the actual costs of storm damage are lower than what has been established in rates. This is done through evaluation in each general rate case of available storm reserves remaining as compared to expected requirements in determining annual amounts to be included in rates to maintain adequate reserves. Similarly, the utility benefits from the reserve because it also realizes a smoothing of storm expenses from an operating perspective. This, in turn, reduces volatility in earnings associated with significant storm events.

VI. CONCLUSION

Q: Does that conclude your testimony?

A: Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Evergy Metro, Inc. d/b/a Evergy Missouri Metro's Request for Authority to Implement A General Rate Increase for Electric Service	))))	Case No. ER-2026-0143

AFFIDAVIT OF RYAN P. MULVANY

STATE OF MISSOURI)
) ss
COUNTY OF JACKSON)

Ryan P. Mulvany, being first duly sworn on his oath, states:

1. My name is Ryan P. Mulvany. I work in Kansas City, Missouri, and I am employed by Evergy Metro, Inc. as Vice President Distribution – Power Delivery Administration.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Evergy Missouri Metro consisting of seventeen (17) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

Ryan P. Mulvany

Subscribed and sworn before me this 6th day of February 2026.

Notary Public

My commission expires: April 26, 2029

ANTHONY R WESTENKIRCHNER
NOTARY PUBLIC - NOTARY SEAL
STATE OF MISSOURI
MY COMMISSION EXPIRES APRIL 26, 2029
PLATTE COUNTY
COMMISSION #17279952

EVERGY ANNUAL CAPITAL INVESTMENT PLANNING PROCESS