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**Case No.:**

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Grid Infrastructure  
Alvarez/Direct  
Public Counsel  
ER-2026-0143

**DIRECT TESTIMONY**

**OF**

**PAUL ALVAREZ**

Submitted on Behalf of the Office of the Public Counsel

**EVERGY METRO, INC. D/B/A  
EVERGY MISSOURI METRO**

CASE NO. ER-2026-0143

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Denotes Confidential Information that has been redacted.

June 30, 2026

**PUBLIC**

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**DIRECT TESTIMONY**  
**OF**  
**PAUL J. ALVAREZ**  
**EVERGY MISSOURI METRO**  
**CASE NO. ER-2026-0143**

1 **I. INTRODUCTION**

2 **Q. Please state your name, title and business address.**

3 A. My name is Paul J. Alvarez. My business address is Wired Group, P.O. Box 620756,  
4 Littleton, CO 80162.

5 **Q. What is your current occupation?**

6 A. I lead the Wired Group, a consultancy specializing in distribution utility planning,  
7 investment, regulation, and performance.

8 **Q. Please describe your education and employment background.**

9 A. I receive an undergraduate degree in finance and marketing from Indiana University's  
10 Kelley School of Business in 1983, and a master's degree from the Kellogg School of  
11 Management at Northwestern University in 1991. After several roles of increasing  
12 responsibility in Chicago-area Fortune 500 companies, my first role in the monopoly  
13 electric utility industry, beginning in 2001, was as a product development manager with  
14 Xcel Energy. I oversaw the development of new demand-side management (DSM)  
15 programs, as well as programs and rates in support of voluntary renewable energy  
16 purchases and renewable portfolio standard compliance. My work developing DSM  
17 programs honed my understanding of various cost-effectiveness tests typically employed  
18 in the utility industry.

19 Working for a boutique consultancy in 2010<sup>1</sup> and 2011,<sup>2</sup> I lead teams that  
20 completed the first two independent evaluations of benefits delivered by smart grid  
21 investment programs ever completed. I started the Wired Group in 2012 to focus

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<sup>1</sup> Alvarez P. et al. *SmartGridCity® Demonstration Project Evaluation*, Colorado PUC 11A-1001E, Exh. MGL-1 to the Direct Testimony of Michael G. Lamb, Xcel Energy (December 14, 2011).

<sup>2</sup> Alvarez P. et al., *Staff Audit and Assessment of Duke Energy Ohio Smart Grid* prepared by MetaVu, Inc. for the Staff of the Public Utilities Commission of Ohio (June 30, 2011), available at <https://dis.puc.state.oh.us/ViewImage.aspx?CMID=A1001001A11F30B73603I44077>.

1 exclusively on distribution utility regulation, planning, investment, and performance  
2 measurement. I wrote the book, *“Smart Grid Hype and Reality: A Systems Approach to*  
3 *Maximizing Customer Return on Utility Investment”* in 2014, and updated it with a second  
4 edition in 2018. In addition to leading the Wired Group, I occasionally teach regulators  
5 and staff at Michigan State University’s Institute of Public Utilities. I also publish papers  
6 and present at conferences on distribution utility regulation, planning, investment, and  
7 performance measurement.

8 **Q. Do you maintain any professional designations?**

9 A. No.

10 **Q. Have you previously provided testimony before the Missouri Public Service**  
11 **Commission (“Commission”)?**

12 A. No.

13 **Q. Have you previously served as an expert consultant in proceedings before state utility**  
14 **regulators?**

15 A. Yes. Since 2014 I have submitted testimony in 61 proceedings before 20 different state  
16 utility regulators. Please see my CV attached as Schedule PJA – 1, which provides  
17 information on testimony subject matter, jurisdictions, proceeding identification, and dates.  
18 I have also attached Schedule PJA-2, which is a selection of Company responses to my  
19 data requests.

20 **Q. What party do you represent?**

21 A. In this proceeding, I represent the Missouri Office of the Public Counsel (“Public Counsel”  
22 or “OPC”).

23 **Q. Are any other Wired Group associates filing testimony in this proceeding?**

24 A. Yes. Expert David Shapley will also be filing testimony on behalf of Public Counsel. Mr.  
25 Shapley and I worked together closely on our evaluation of EMM’s rate increase request,  
26 and as a result, references from my testimony to his, and in his testimony to mine, are  
27 frequent.

1 **Q. What is the purpose of your direct testimony?**

2 A. The purpose of my direct testimony is to present the results of my examination of the  
3 reasonableness of EMM's transmission and distribution infrastructure spending since the  
4 Company's last rate case, and to provide recommendations to the Commission regarding  
5 EMM capital spending governance.

6 **Q. Would you please provide a summary of your recommendations?**

7 A. I provide two recommendations for the Commission's consideration.

8 1) The Commission should require discretionary investments that EMM makes or  
9 proposes to pass a risk-informed benefit-cost analysis test of customer cost-effectiveness.

10 2) The Commission should order \$51.2 million in disallowances recommended in  
11 OPC's expert witness Shapley's direct testimony as summarized in the table below:

(\$ in millions)	2022	2023	2024	2025	2026	Total
Lateral Rebuild Projects	\$7.107	\$2.014	\$0.218	\$5.426	\$6.951	\$21.806
Substation Projects	4.427	7.987	8.684	4.331	3.996	29.424
Totals	\$11.534	\$10.091	\$8.902	\$9.757	\$10.947	\$51.230

12

13 **Q. Would you please provide a brief preview of your testimony?**

14 A. My testimony is broken down into four sections. After this Introduction, Section II  
15 provides my perspective on EMM's distribution capital spending since its last rate increase  
16 request. Section III describes a method for evaluating discretionary utility spending that I  
17 recommend the Commission require of EMM (and other regulated for-profit utilities), and  
18 identifies serious deficiencies in capital spending governance at EMM documented through  
19 discovery. Section IV summarizes and concludes this testimony.

1 **II. EMM's DISTRIBUTION CAPITAL SPENDING SINCE ITS LAST RATE INCREASE**  
2 **REQUEST: OVERVIEW AND PERSPECTIVE**

3 **Q. Would you please preview this section of your testimony?**

4 A. In this section of my testimony I provide my perspective on the Company's capital  
5 spending since its last rate increase request.

6 **Q. Please provide a brief overview of the EMM's rate request.**

7 A. In this proceeding, EMM is requesting a \$137.9 million increase in its annual revenue  
8 requirement. This is an overall rate increase of 14.92%, excluding fuel.<sup>3</sup> EMM estimates  
9 that based on its request, which includes the rebasing of the Fuel Adjustment Clause, or  
10 FAC, the typical residential customer bill will increase by \$17.70 per month.<sup>4</sup>

11 **Q. When was EMM's last rate increase?**

12 A. EMM's most recent rate increase was in 2022 in case No. ER-2022-0129.

13 **Q. What is the largest drive of this current rate case?**

14 A. The largest single drive of this rate increase, by far, is the increase in capital spending.

15 **Q. How much of this rate increase is due to capital spending?**

16 A. Two-thirds (66.7%) of EMM's rate increase request can be traced to its increased capital  
17 spending.<sup>5</sup>

18 **Q. In what areas of the utility is this capital spending taking place?**

19 A. The vast majority of capital spending appears to be designed to improve reliability.<sup>6</sup> While  
20 some capital appears to have been spent on digital customer service<sup>7</sup> and other  
21 administrative needs, EMM's distribution grid has apparently been singled out for

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<sup>3</sup> Direct Testimony of Kevin D. Gunn, page 8, lines 3-4.

<sup>4</sup> Direct Testimony of Kevin D. Gunn, page 10, lines 5-6.

<sup>5</sup> Direct Testimony of Kevin D. Gunn, page 9, Figure 1.

<sup>6</sup> Direct Testimony of Kevin D. Gunn, page 8, line 15.

<sup>7</sup> Direct Testimony of Katie McDonald, pages 11-21.

1 particularly significant increases in capital spending. OPC Witness Shapley addresses this  
2 in his testimony.

3 **Q. What is some of the other drivers of EMM's rate increase?**

4 A. The second largest driver of EMM's rate increase is the increase in EMM's cost of capital,  
5 representing approximately \$18.1 million (13.4%) of the rate increase request.<sup>8</sup> This  
6 includes EMM's recommendation to increase its profit percentage (i.e. its Return on  
7 Equity) to 10.5%. This request will be addressed by Public Counsel expert David Murray.  
8 Another reason for the increase, though smaller, is EMM's proposal to establish a storm  
9 cost reserve. This proposal increases EMM's annual revenue requirement by  
10 approximately \$1.1 million,<sup>9</sup> and will be addressed by Public Counsel expert Manzell  
11 Payne.

12 **Q. Why is it important to examine EMM's capital spending?**

13 A. It is important to examine EMM's overall capital spending because capital spending cost  
14 recovery extends over decades. As a result, increases in capital spending only become  
15 apparent in rate increases over long periods of time; the revenue requirement in the first  
16 few years of a capital project only reflects a fraction of what customers will ultimately pay  
17 for those projects. When increased capital spending drives such a large proportion of  
18 EMM's rate increase request (two-thirds) despite extended cost recovery, this indicates that  
19 such increases must have been particularly large, warranting close scrutiny. My Wired  
20 Group colleague and expert Mr. Shapley scrutinizes Company infrastructure spending in  
21 his testimony on behalf of Public Counsel.

22 **Q. Can you demonstrate EMM's increase in capital spending on its distribution  
23 infrastructure?**

24 A. Yes. Figure 1 below indicates that EMM's capital spending on distribution infrastructure  
25 has increased dramatically since EMM's last rate case, and since the passing of Senate Bill  
26 564 in 2018. While I recognize that increased capital spending to improve reliability may

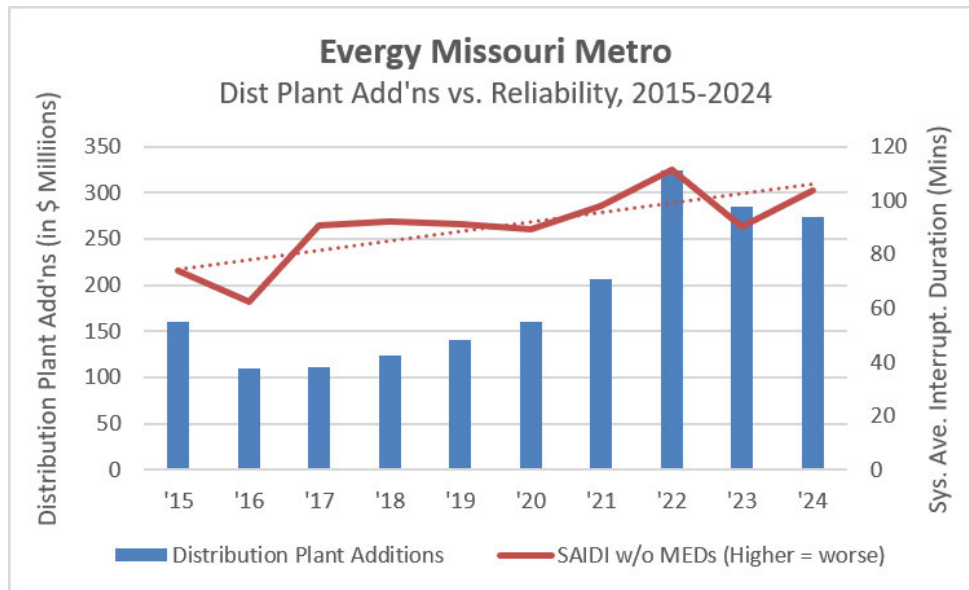
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<sup>8</sup> Direct Testimony of Kevin D. Gunn, page 9, Figure 1.

<sup>9</sup> Direct Testimony of Ronald A. Klote, Schedule RAK-4, page 4, line 79.

1 have been part of the Legislature’s intention in passing SB 564, this does not relieve EMM  
2 of its responsibility to ensure that its capital spending delivers reliability benefits of  
3 sufficient size and value to exceed the costs of that spending. As Figure 1 indicates,<sup>10</sup>  
4 while distribution capital spending has increased significantly, reliability has not improved.

5 *Figure 1: EMM Distribution Plant Additions compared to Reliability Performance, 2015-2024*



6  
7 This finding can be seen repeated at a more detailed level in the distribution capital  
8 spending projects and programs Mr. Shapley examines in his testimony. In our informed  
9 opinion EMM has made a lot of discretionary capital equipment replacement decisions that  
10 are unlikely to deliver reliability improvements of sufficient customer value to exceed costs  
11 customers will pay.

12 **Q. Should the Commission be concerned about the dramatic rise in EMM capital**  
13 **spending presented in Figure 1?**

14 **A.** Yes. I am also concerned that absent improved governance over EMM’s capital spending  
15 decisions, capital bias<sup>11</sup> will encourage EMM to continue increasing capital spending into

<sup>10</sup> Distribution Plant Additions from KCP&L/EMM FERC Form 1; SAIDI from KCP&L/EMM US EIA Form 861.

<sup>11</sup>Averch H and Johnson L. ‘Behavior of the Firm Under Regulatory Constraint.’ *The American Economic Review*. Vol. 52, No. 5 (December, 1962), pp. 1052-1069.

1 the future. While EMM's plans indicate that capital spending on distribution will moderate  
2 in the future, this may only be due to the recent shift in EMM's capital spending plans to  
3 spend more on generation in the near term<sup>12</sup> (to meet anticipated increases in load from  
4 large load customers). Had the perceived need to increase generation not arisen, and/or  
5 once that need is addressed or abates, it is likely EMM will return to making investments  
6 that will not cost-effectively improve reliability, as Mr. Shapley believes the Company has  
7 made since its last rate case. This is due to capital bias, which refers to the Company's  
8 incentive to increase earnings by increasing the size of its rate base. The next section of  
9 my testimony provides a recommendation intended to eliminate discretionary capital  
10 spending decisions that are unlikely to deliver benefits to customers in excess of costs to  
11 customers.

12 **III. HOW EMM SHOULD EVALUATE DISCRETIONARY CAPITAL SPENDING**  
13 **DECISIONS**

14 **Q. Would you please preview this section of your testimony?**

15 A. In this section of my testimony I critique EMM's capital spending governance, and provide  
16 an alternative for the Commission to consider as a future guideline to order not only for  
17 EMM, but for all investor-owned electric utilities in Missouri. EMM has made multiple  
18 discretionary capital spending decisions since its last rate case that are inadequately  
19 supported, including major substation projects and lateral rebuild projects. A lack of rigor  
20 in decision-making for discretionary spending decisions underlies the cost disallowances  
21 recommended in Mr. Shapley's testimony.

22 I begin this section by explaining how and why to discern between spending  
23 required for safe and reliable service and spending that is discretionary. I then proceed to  
24 explain risk-informed benefit-cost analysis, and why it is ideal for discretionary capital  
25 project decision support. Next, I will describe the Company's lack of capital project and  
26 program spending governance and challenge processes. I conclude this section by  
27 recommending that the Commission establish a definition for discretionary spending, and

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<sup>12</sup> Case No. EO-2019-0047. Capital Investment Plan Update. Schedule 1 – Current Five-Year Plan and Comparisons to Prior Five-Year Plan by Category. February 27, 2026.

1 order EMM to apply a risk-informed benefit-cost analysis as a test of cost-effectiveness  
2 when making decisions regarding discretionary capital projects larger than \$1 million.

3 *A. How and why to discern between spending required for safe and reliable service and*  
4 *spending that is discretionary*

5 **Q. What is the difference between a required investment and a discretionary**  
6 **investment?**

7 A. According to the Regulatory Compact, in exchange for the right to provide service in a  
8 defined service area as a monopoly, utilities must make the investments required to deliver  
9 safe and reliable service to all customers in that service area. In exchange, a for-profit  
10 utility regulator provides utilities with a reasonable opportunity to earn a rate of return on  
11 investment as part of the rates the utility charges. I note that over the past 100 years or so,  
12 the Regulatory Compact, combined with cost-of-service ratemaking, has provided  
13 Americans with a safe and reliable electric system, envied the world over, at a reasonable  
14 cost. This system of utility regulation and utility investment has survived periods of  
15 exceptionally fast load growth in the past, be it from refrigeration in the 1930s, World War  
16 II production in the 1940s, or air conditioning in the 1950s and 1960s.

17 As a result, I define required investments as those that are required to deliver service  
18 in a safe and reliable manner under the Regulatory Compact. Examples of these include:

- 19 • Expanding infrastructure capacity when a bona fide forecast indicates loads will exceed  
20 existing infrastructure capacity in the near future;
- 21 • Replacing equipment that fails in service (such as equipment damaged by storms);
- 22 • Replacing equipment that fails an objective diagnostic or functional test or inspection;
- 23 • Connecting new customers (or expanding service capacity as existing customers  
24 request);
- 25 • Completing facility relocations made necessary by public works projects (or that a  
26 customer pays for); and
- 27 • Installing equipment required by an order from an authority that authorizes the utility  
28 to operate (such as the Commission or Legislature).

1 **Q. If these are required investments, what are discretionary investments?**

2 A. Investments that are not required for safe and reliable service are discretionary. For  
3 example, assuming current levels of reliability are acceptable, investments to improve  
4 reliability are discretionary. EMM reliability performance appears to me to be acceptable,  
5 if not better than acceptable. According to EMM witness Mr. Mulvany, EMM restoration  
6 performance (CAIDI) is top tier, system average interruption duration (SAIDI) is far better  
7 than average, and system average interruption frequency (SAIFI) is only slightly below  
8 average.<sup>13</sup> Moreover, EMM customers are much more than satisfied with the Company's  
9 current service reliability.<sup>14</sup> Thus, I consider decisions to spend capital to improve  
10 reliability to be discretionary rather than required for safe and reliable service.

11 Discretionary decisions to complete a capital project can vary in timing (now vs.  
12 future), geographic extent (system-wide vs. specific locations), and even whether to move  
13 forward with a particular capital project or program at all. Examples include the substation  
14 and lateral rebuild projects Mr. Shapley addresses in his testimony.

15 **Q. Why is it important to differentiate between required and discretionary spending?**

16 A. By definition, a project that is required for safe and reliable service is not optional. There  
17 is therefore little need for economic analysis. If a used and useful piece of equipment is  
18 damaged in a storm, EMM must repair or replace it. If a developer builds a new residential  
19 subdivision, EMM must build laterals and service lines. However, since discretionary  
20 projects are not required for safe and reliable service, decisions to move forward with them  
21 should not be made unless the value of benefits delivered by such projects to customers  
22 exceed the costs of such projects to customers. This is why, as just one example, Missouri  
23 law requires utilities' energy efficiency programs to pass a test of cost-effectiveness.<sup>15</sup> To  
24 summarize, it is important to differentiate between required and discretionary spending  
25 because the Commission should not expect required spending to pass cost-effectiveness

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<sup>13</sup> Direct Testimony of Kevin D. Gunn, Figure 4, pages 8-9.

<sup>14</sup> Q2036\_CONF\_Outage Frequency Research. Slide 3.

<sup>15</sup> RSMO Chapter 393.1075(4).

1 tests,<sup>16</sup> while the Commission should expect discretionary spending to pass cost-  
2 effectiveness tests.

3 **Q. Is there other statutory guidance to Missouri electric utilities regarding the**  
4 **development of benefit costs analyses for certain discretionary capital spending?**

5 A. Yes. In addition to the Missouri Energy Efficiency Investment Act provision described  
6 above, Missouri law instructs utilities taking advantage of deferred cost recovery for non-  
7 revenue projects to develop benefit-cost analyses for such projects in excess of \$20  
8 million.<sup>17</sup> However, as EMM has completed just four such projects over \$20 million since  
9 its last rate case,<sup>18</sup> I believe this threshold to be too high, and that the Commission should  
10 take the lead on extending this requirement to smaller projects. That a utility can often  
11 break large, complex projects down into phases to avoid such requirements is another  
12 reason to reduce the threshold.

13 **Q. Has the legislature expressed a preferred methodology for testing the cost-**  
14 **effectiveness of discretionary capital projects?**

15 A. Yes. The Missouri Energy Efficiency Investment Act specifies the Total Resource Cost  
16 test as the preferred test for energy efficiency program cost effectiveness. The Total  
17 Resource Cost test is essentially a benefit/cost analysis that compares the benefits enjoyed  
18 by customers (both program participants and non-participants) to costs paid by customers  
19 (both program participants and non-participants). This is a fine approach, but it must be  
20 augmented a bit when the benefits of spending are reductions in risk rather than reductions  
21 in energy usage. Since most discretionary utility investments are made to reduce the risk  
22 of a service interruption, the size and value of the reduction in service interruption risk  
23 likely to be delivered by a proposed project must be estimated in the benefit part of the  
24 benefit-cost analysis of that project. There is a standard way to do this, and it is known as  
25 a risk-informed benefit-cost analysis.

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<sup>16</sup> This observation is not intended to imply that utilities are not responsible for providing other information to demonstrate the prudence of required investments. As examples, required investments must be used and useful in providing service, and must be procured through processes that reduce costs and prevent malfeasance.

<sup>17</sup> RSMO Chapter 393.1400(4). See also SB 564 (2018); SB 745 (2022); and SB 4 (2025).

<sup>18</sup> Q5000\_CONF\_Plant Adds 2021\_2026 for Trans Mulvany\_DRs WP, tab "data."

1 **B. Discretionary spending decisions and risk-informed benefit-cost analysis**

2 **Q. What is a risk-informed benefit-cost analysis?**

3 A. A risk-informed benefit estimate involves an assessment of the existing risk of a service  
4 interruption (or other adverse event, like a safety incident), meaning, before any action  
5 (like a capital project) is taken. This is known as the probability of an adverse event, and  
6 for service interruptions, can be gleaned from utilities' outage management systems. Next,  
7 the reduction in the probability of a service interruption likely to result from the capital  
8 project being considered is estimated. Ideally, this estimate is based on improvements  
9 measured from similar projects in the past. Finally, the consequences of a service  
10 interruption in the proposed capital project's location (customer counts, residential-  
11 commercial customer mix, interruption duration, etc.) is estimated in dollars. Most  
12 commonly, the US Department of Energy's online "Interruption Cost Estimator" tool is  
13 used for this. Then, these three estimates are simply multiplied to calculate the annual  
14 value of the risk reduction offered by a project in dollars, as shown in the equation below:<sup>19</sup>

$$\begin{array}{ccccccc} \text{Annual} & & \text{Annual} & & \text{Reduction in} & & \text{Consequence} \\ \text{Value of} & & \text{Adverse} & & \text{probability \%} & & \text{of the} \\ \text{Risk} & = & \text{Event} & \times & \text{as a result of} & \times & \text{Adverse} \\ \text{Reduction} & & \text{probability} & & \text{investment} & & \text{Event (in \$)} \\ \text{(in \$)} & & \% & & & & \end{array}$$

15  
16 This risk reduction value over the expected lifetime of an investment (20, 40 years,  
17 etc.) is the risk-informed "benefit" that should be compared to project costs to customers  
18 for significantly-sized discretionary capital spending decisions. The equation can also be  
19 used to estimate the dollar-denominated benefits of other types of risk reductions, such as  
20 the value of a safety improvement.

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<sup>19</sup> California Public Utilities Commission. Decision 22-12-027 dated December 15, 2022 in R.20-07-013. Appendix A, Page 13, line item 13.

1 **Q. Would you please explain how this equation works?**

2 A. Yes. As an example, assume a potential capital project with an expected life of 40 years  
3 will reduce the risk of a service interruption from 4% per year to 2% per year (a 50% risk  
4 reduction), and that every service interruption saved by this investment will avoid  
5 impacting 400 customers for two hours. Using the US Department of Energy's online  
6 Interruption Cost Estimator,<sup>20</sup> such a service interruption has a consequence cost of  
7 \$219,000 (assuming EMM's residential to non-residential customer mix of 89%/11%).  
8 The annual value of the service interruption risk reduced by this example equals \$4,379, as  
9 shown by the equation below:

$$\begin{array}{ccccccc} \text{Annual} & & \text{Annual} & & \text{Reduction in} & & \text{Consequence} \\ \text{Value of} & & \text{Adverse} & & \text{probability \% as a} & & \text{of the Adverse} \\ \text{Risk} & = & \text{Event} & \times & \text{result of investment} & \times & \text{Event (\$0.219} \\ \text{Reduction} & & \text{probability} & & \text{50\% (.5)} & & \text{million)} \\ \$4,379 & & 4\% (0.04) & & & & \end{array}$$

10

11 Over 40 years, assuming a 2.5% inflation rate and an 8% discount rate, the present  
12 value of an annual risk reduction benefit of \$4,379 is \$69,778. Thus, as long as the present  
13 value of cost to customers of a project, including the utility's interest expense, profits, and  
14 taxes on profits customers must pay over time, is less than \$69,778, the decision to move  
15 forward with this proposed discretionary project could be deemed prudent. Without such  
16 an analysis, the prudence of the decision to complete a discretionary project cannot be  
17 determined.

18 ***C. EMM's Lack of Capital Spending Governance and Project/Program Challenge Process***

19 **Q. How has EMM decided which discretionary projects to build recently?**

20 A. In recent years, EMM has been making discretionary decisions to replace a lot of  
21 equipment, including lateral reconductoring projects and substation projects. EMM has

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<sup>20</sup> The US Department of Energy's online Interruption Cost Estimator tool is available at <http://www.icecalculator.com>.

1           been using subjective means to identify these projects, making the decisions to move ahead  
2           with them discretionary. Yet, though Mr. Shapley and I would characterize these projects  
3           as discretionary, EMM appears to have completed no risk-informed benefit-cost analyses.

4     **Q. In your opinion how should EMM have evaluated which projects to build?**

5     A. As described in expert Shapley’s testimony, utilities have historically used objective  
6           inspections to determine when a conductor must be repaired or replaced, and objective  
7           diagnostic and functional tests to determine when substation equipment must be repaired  
8           or replaced.<sup>21</sup> Repairs and replacements identified through these objective means are  
9           required for safe and reliable service, and not discretionary. In my opinion EMM should  
10          have used objective means to identify which of these particular lateral reconductoring and  
11          substation projects to build.

12    **Q. Would you explain your understanding of how EMM selects which laterals to**  
13    **reconductor?**

14    A. While EMM appears to use standard inspections and testing to identify required repairs  
15          and replacements, it also appears to use subjective means to make additional, discretionary  
16          equipment replacement decisions. Regarding lateral reconductoring, EMM uses a software  
17          package, AssetLens, to make discretionary equipment replacement decisions.<sup>22</sup> The  
18          software appears to evaluate equipment on six dimensions, such as estimates of the cost to  
19          customers of outages served by the lateral, and the presence of “critical” customers. Using  
20          these six dimensions, the software assigns what I would characterize as a “riskiness” score  
21          to items or groups of equipment.<sup>23</sup> These scores are utilized to prioritize laterals for  
22          reconductoring. EMM claims the software uses the scores to develop a benefit-cost ratio  
23          for reconductoring projects.<sup>24</sup> However, EMM states it retains neither lateral scores nor  
24          lateral benefit-cost analyses,<sup>25</sup> making it impossible for expert Shapley or me (or anyone  
25          else) to examine these justifications for these projects. Further, I note that risk scores are

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<sup>21</sup> Direct Testimony of David C. Shapley dated June 30, 2026. Pages 3-8.

<sup>22</sup> Company response to OPC Data Request 5008.

<sup>23</sup> Company response to OPC Data Request 2019.

<sup>24</sup> Company response to OPC Data Request 5008 (c) (viii).

<sup>25</sup> Company response to OPC Data Request 5008 (c)(vi) and (vii).

1 not denominated in dollars, making the Company's claim that risk scores were used to  
2 complete benefit-cost analyses suspect.

3 **Q. Who establishes EMM's capital spending budget?**

4 A. EMM's parent company, Evergy, Inc., establishes a capital spending budget for EMM.  
5 Notably, capital bias provides EMM and its parent with an economic incentive to spend as  
6 much capital as EMM can justify and raise. Potential lateral reconductoring projects are  
7 ranked from highest to lowest by priority scores, and EMM completes the lateral  
8 reconductoring projects that it can for the available budget. EMM's process is backwards  
9 and results in unnecessary capital spending. Rather than simply using up the capital budget  
10 the parent allocates, EMM should limit its discretionary capital spending to only those  
11 programs and projects likely to deliver benefits in excess of costs as determined by a risk-  
12 informed benefit-cost analysis.

13 **Q. What conclusion do you draw from your analysis of EMM's process for prioritizing  
14 lateral reconductoring projects?**

15 A. The conclusion that I draw is the EMM's lateral reconductoring project scoring and  
16 budgeting practices appear to be largely subjective, and driven more by capital bias (to  
17 benefit shareholders) than by an interest in limiting capital spending to projects likely to  
18 deliver benefits in excess of costs (to benefit customers). I do not recommend that EMM  
19 decisions to reductor laterals identified by the AssetLens software should be relied  
20 upon.

21 **Q. Why do you come to this conclusion?**

22 A. First, to my knowledge, the software does not use the risk-informed benefit equation  
23 described earlier in this testimony to project and place a dollar value on the reliability  
24 improvement benefits from projects. With no assessment of existing service interruption  
25 risk, no estimate of risk reductions from lateral reconductoring projects, and no estimate of  
26 the value of service interruption reductions in dollars, there can be no estimate of customer  
27 benefits against which to compare customer costs.

1 Further, it is my understanding that the accuracy of the software’s reliability  
2 improvement projections has not been validated.<sup>26</sup> To validate a model is to compare the  
3 known reliability performance improvement after a completed project to the reliability  
4 performance improvements the software model projected. Such a comparison would  
5 determine the accuracy of the software’s reliability improvement projections. That EMM  
6 would make discretionary capital spending decisions in the tens of millions of dollars based  
7 on a software model that has not been validated, and over which EMM has no control,<sup>27</sup>  
8 makes no sense to me. The Commission should not find such a practice acceptable.

9 **Q. Do you have any further concerns with the AssetLens Software and EMM’s reliance**  
10 **on it?**

11 A. Yes. It is possible that AssetLens software was specifically designed in part to justify  
12 accelerated equipment replacements. Developed by a wholly owned subsidiary of Burns  
13 and McDonnell, an engineering firm with significant revenues from investor-owned  
14 utilities, software that helps justify accelerated equipment replacements would certainly be  
15 attractive to any utility with capital bias, like EMM. Further, we note that Burns and  
16 McDonnell maintains a large consulting practice specializing in electric project  
17 engineering, procurement, and construction (“EPC”). It is certainly possible the firm could  
18 be hired to complete the projects its AssetLens software recommends. I recommend the  
19 Commission recognize these incentives as it considers the prudence of EMM’s lateral  
20 replacement projects and decision-making. Indeed, EMM reports it spends almost \*\* \_\_  
21 \_\_\_\_\_ \*\* on outsourced EPC services annually,<sup>28</sup> making EMM an important prospective  
22 customer for Kansas City-based Burns and McDonnell.

23 **Q. How much rigor does EMM apply to its decisions to build new, or rebuild or upgrade**  
24 **existing substations?**

25 A. Substation projects are extremely costly. When asked in discovery for the details of multi-  
26 faceted substation projects over \$500,000 placed into service since the last rate case, the

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<sup>26</sup> There is an outstanding request for EMM to provide any validation studies completed on the accuracy of the AssetLens software’s reliability improvement projections.

<sup>27</sup> Company response to OPC data request 2020.

<sup>28</sup> Q5014\_CONF\_DR5014

1 Company responded with spending details on 48 projects and programs totaling \$260.9  
2 million, for an average cost per project of \$5.4 million.<sup>29</sup> These projects, plus the lateral  
3 reconductoring projects described above, represent a significant proportion of the increase  
4 in capital spending depicted in Figure 1 (page 6) since the last rate case. Only nine projects  
5 totaling just \$65.1 million appear to be needed to accommodate load growth,<sup>30</sup> making the  
6 balance of the projects and program spending discretionary, apparently to improve  
7 reliability.

8 Mr. Shapley and I would expect rigorous reviews or justifications of the need for  
9 the remaining 37 discretionary capital projects and programs totaling \$195.8 million. Yet  
10 despite the size of these significant capital spending decisions, the Company appears to  
11 apply even less rigor to substation projects than it applies to lateral reconductoring projects.  
12 When asked in discovery, the Company provided no approved capital spending  
13 authorizations for any of these substation projects or programs,<sup>31</sup> nor did the company  
14 complete any benefit-cost analyses on any of these projects.<sup>32</sup> It appears EMM applied no  
15 rigorous challenge process at all when making substation capital project and capital  
16 program decisions. (Note that this is somewhat different from the Company's claim for  
17 lateral reconductoring projects; for those projects, EMM claims to have completed, but not  
18 retained, benefit-cost analyses.)

19 **Q. What could account for such an extreme lack of rigor for such costly projects?**

20 A. I understand that EMM's parent company, Evergy, was formed in 2018 through the merger  
21 of Kansas City Power and Light, Kansas Gas and Electric Company, and Great Plains  
22 Energy. In January 2020, a private equity firm with a history of shareholder activism,  
23 Elliot Management, announced it had amassed about 5% ownership in Evergy, worth about  
24 \$760 million at the time.<sup>33</sup> I also understand that many stakeholders were concerned that  
25 Elliot Management encouraged dramatic increases in capital spending by these subsidiaries

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<sup>29</sup> Q5023 a\_CONF\_Substation Plant Additions

<sup>30</sup> Ibid.

<sup>31</sup> Company responses to OPC 5005 (c), (d), and (e); OPC 5006(b); and OPC 5007(b).

<sup>32</sup> Company response to OPC 5023 (a)(iv), (b)(iv), (c)(iv), and (d)(iv).

<sup>33</sup> *Elliott Management Sends Letter to Board of Directors of Evergy, Inc.* Elliott Management Corporation Press Release dated January 21, 2020.

1 as a way to increase shareholder value. This was documented in an agreement between  
2 Elliot Management and Evergy dated February 28, 2020 which, among other things,  
3 established a Committee to develop a plan for grid reliability investment.<sup>34</sup> The resulting  
4 Sustainability Transformation Plan, unveiled that August, proposed \$4.93 billion in  
5 transmission and distribution capital spending 2020-2024<sup>35</sup> as part of a total capital  
6 spending plan that was \$1.35 billion higher than Evergy's previous capital spending plan<sup>36</sup>  
7 (which itself already represented a significant increase, as indicated by capital spending  
8 increases 2019-2020 over 2016-2018 in Figure 1, page 6). The significant increase in  
9 capital spending 2021-2024 in Figure 1 is likely the result of Transformation Plan  
10 implementation. Yet as Figure 1 (page 6) indicates, the Plan and its capital spending  
11 increases have not improved reliability. This indicates customers have not gotten value for  
12 rate increases related to that reliability capital spending.

13 **Q. What does all this have to do with the lack of rigor for capital spending decisions**  
14 **EMM data request responses indicate?**

15 A. While customers have received no reliability improvement value from EMM rate and  
16 capital spending increases, investors have done very well. For example, Elliot  
17 Management's investment in Evergy was worth at least \$245 million more than the investor  
18 paid (1.005 billion as of June 26, 2026). (Elliot Management accumulated shares in  
19 Evergy, and possibly predecessor companies, over time, and so the price Elliot  
20 Management paid for its 5% share of Evergy is almost certainly much less than the \$760  
21 million valuation at the time of the investor's announcement in January 2020.) This  
22 indicates that while capital project and program challenge processes, and capital spending  
23 governance generally, are important for customers, they are antithetical to shareholders  
24 interests. Shareholder interest in increased capital spending could be related to the lack of  
25 rigor and challenge processes for capital projects and programs at EMM.

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<sup>34</sup> Case No. EO-2021-0032. Agreement by and among Elliot Investment Management, L.P., Elliot Associates, L.P., and Elliot International L.P. and Evergy Inc. dated February 28, 2020.

<sup>35</sup> Sustainable Transformation Plan. Evergy proposal dated August 13, 2020. Table 3, page 28.

<sup>36</sup> Ibid, Figure 5, page 29.

1 **Q. What is the link between the interests of EMM’s parent company and lack of capital**  
2 **spending governance at EMM?**

3 A. There are indications that lavish capital spending on the substation (and lateral  
4 reconductoring) projects and programs since the last rate case without adequate capital  
5 project and program review have resulted from a ‘go forth and spend capital’ instruction  
6 from EMM’s parent company, consistent with Evergy’s Transformation Plan. As indicated  
7 in Mr. Shapley’s testimony, significant spending increases are resulting from the proactive  
8 substation transformer replacement program (\$85.6 million)<sup>37</sup> and the proactive substation  
9 breaker/switchgear replacement program \$34.9 million)<sup>38</sup> in addition to the lateral  
10 reconductoring program (\$21.8 million).<sup>39</sup> There are indications these programs were  
11 prompted by Evergy, and the programs appear to have resulted in significant changes in  
12 EMM equipment repair and replacement practices, as further detailed in Mr. Shapley’s  
13 testimony. As Mr. Shapley testifies, the new practices are imprudent, as they do not  
14 represent least cost solutions to equipment issues identified through objective diagnostic  
15 and functional testing. Further, Mr. Shapley does not expect the new practices to improve  
16 reliability. This explains why reliability has failed to respond to capital spending increases.

17 From my perspective, discretionary capital spending programs, as well as decisions  
18 to modify equipment repair and replacement practices related to those programs, should be  
19 required to pass risk-informed benefit-cost analyses or other tests of cost effectiveness, just  
20 as large capital projects should. Additionally, capital equipment replacement projects  
21 should be screened for alternatives, such as the repairs Mr. Shapley describes in his  
22 testimony. That no such challenge process appears to exist is an indication of inadequate  
23 capital spending governance, which is an indication of the effects of the ‘go forth and spend  
24 capital’ instruction I allege from Evergy to subsidiaries like EMM.

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<sup>37</sup> Q5023 c\_CONF\_Transformers

<sup>38</sup> Q5023 d\_CONF\_Breakers

<sup>39</sup> Q5008\_Lateral Info (a) and Q5008\_Lateral Info (b).

1 **Q. Are you suggesting EMM management completed no review at all of these projects?**

2 A. No. It appears that technical reviews were appropriately completed on all projects.  
3 However, technical reviews are altogether different from capital spending governance,  
4 complete with project and program challenge processes. Technical reviews are intended  
5 to ensure completed projects will provide safe and reliable service, and that projects can be  
6 completed with minimal customer disruption for the costs estimated by project sponsors.  
7 This is a completely different type of review than a capital project and program challenge  
8 process. Both technical reviews and capital project and program challenge processes are  
9 essential to sound capital spending governance. In essence, technical reviews of projects  
10 with no challenge processes indicate that any technically sound project proposed by EMM  
11 engineers receives capital spending approval. This is capital spending governance  
12 deficiency at its most extreme, and should not be condoned by the Commission.

13 **Q. But the grid needs to be upgraded does it not?**

14 A. Not necessarily! This is a popular misconception of which the legislature has apparently  
15 been convinced by the state's for-profit utilities. Upgrading the grid assumes capital  
16 spending by Missouri for-profit utilities historically has been deficient. Due to capital bias,  
17 I can assure you that Missouri utilities have not chronically underinvested in their  
18 distribution grids. Further, more capital spending is not necessarily better than less, another  
19 popular misconception. As Figure 1 (page 6) and Mr. Shapley's testimony indicates, and  
20 as capital bias predicts, for-profit utilities whose rates are determined through cost-of-  
21 service ratemaking (like those in Missouri) will often choose to spend more capital than  
22 less capital, even when such decisions are not the lowest cost, and even when associated  
23 reliability improvements will be minimal. That is why capital spending governance  
24 processes, and the Commission's authority to disallow recovery of imprudently-incurred  
25 costs from customers, are so critical. Capital spending governance and cost disallowance  
26 risk serve as required counterbalances to utility capital bias. Given SB 4 passed in 2025,  
27 which appears to me to involve advance determinations of prudence, capital spending  
28 governance processes and screening tools like risk-informed benefit-cost analysis become  
29 more critical than ever.

1 **D. Recommendations**

2 **Q. What are your recommendations for a proposed disallowance to EMM's rate base?**

3 A. Given the preceding discussion, and the results of expert Shapley's analyses of EMM's  
4 lateral reconductoring and substation projects, I recommend the Commission adopt the cost  
5 disallowances in expert Shapley's testimony. For the lateral rebuild projects, this amounts  
6 to a proposed disallowance of \$21.806 million from EMM's rate base. For the substation  
7 projects, this amounts to a proposed disallowance of \$29.424 million from EMM's rate  
8 base, amounting to total disallowances of \$51.23 million.

9 **Q. What recommendations do you have for the Commission regarding EMM's capital**  
10 **spending governance?**

11 A. Given capital bias, the preceding discussion, and the results of expert Shapley's analyses,  
12 it is clear to expert Shapley and me that greater (or even some) governance over EMM's  
13 capital spending decisions is needed. I recommend the Commission establish a definition  
14 for capital spending decisions that are discretionary, and require that a risk-informed  
15 benefit-cost analysis test of customer cost-effectiveness be passed for all capital projects  
16 expected to cost more than \$1 million, and for all capital programs expected to cost more  
17 than \$1 million annually. Further, I recommend the Commission demand the Company  
18 provide copies of its capital spending authorization policies and procedures, along with a  
19 requirement that the Company follow and document the use of that process for all  
20 applicable capital spending projects.

21 **IV. REVIEW AND CONCLUSION**

22 **Q. Please summarize your testimony.**

23 A. After the Introduction, in Section II of this testimony I provided an overview of EMM's  
24 rate increase request as well as my perspective on the dramatic increases in distribution  
25 capital spending that are driving EMM's rate increase request. In Section III I explained  
26 the difference between required and discretionary utility spending, and described an  
27 approach for testing the cost-effectiveness of discretionary utility spending called risk-  
28 informed benefit-cost analysis. Section III I also described severe deficiencies in EMM

1 capital spending governance, and recommended the Commission review, and demand  
2 compliance with, the Company's capital spending authorization process. As a result of  
3 these deficiencies, I endorsed OPC Witness Shapley's recommendation to disallow \$51.2  
4 million in capital spending. Finally, to help reinstate capital spending governance at EMM,  
5 in Section III I concluded with a recommendation that the Commission Order risk-  
6 informed benefit-cost analysis be applied to all capital projects and programs in excess of  
7 \$1 million.

8 **Q. Do you have any concluding comments for Commission consideration?**

9 A. Yes. I recognize that the Legislature has passed various utility-related bills in recent years,  
10 such as SB 564 (2018), SB 745 (2022), and SB 4 (2025), and that increased grid investment  
11 may have been one of the intended outcomes of these efforts. But these laws do not relieve  
12 Missouri utilities of their responsibility to govern capital spending, to choose least-cost  
13 solutions when available, or to avoid spending capital on discretionary projects and  
14 programs unlikely to deliver value to customers in excess of costs to customers. I believe  
15 the Commission, as the Legislature's representative in regulating for-profit monopoly  
16 utilities, maintains the right and the ability to moderate any unintended consequences of  
17 the Legislature's well-intended actions. It is my hope that the Commission will consider  
18 exercising its rights and ability after reviewing this testimony.

19 Additionally, I wish to thank the Commission in advance for reviewing this  
20 testimony and considering my perspectives, observations, and recommendations.

21 **Q. Does this conclude your testimony?**

22 A. Yes, it does. However, given that responses to highly relevant data requests were not  
23 received in time to review and include in this testimony, I report that Mr. Shapley's and  
24 my review of the Company's application is ongoing. I thus reserve the opportunity to  
25 append this testimony as necessary and appropriate.

