Exhibit No.:

Issue: Crossroads, Dogwood, EMW Steel in

the Ground Discussion

Witness: Cody VandeVelde Type of Exhibit: Direct Testimony Sponsoring Party: Evergy Missouri West
Case No.: ER-2024-0189
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#### MISSOURI PUBLIC SERVICE COMMISSION

**CASE NOS.: ER-2024-0189** 

**DIRECT TESTIMONY** 

**OF** 

**CODY VANDEVELDE** 

ON BEHALF OF

**EVERGY MISSOURI WEST** 

Kansas City, Missouri February 2024

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#### **DIRECT TESTIMONY**

OF

#### **CODY VANDEVELDE**

#### Case No. ER-2024-0189

| 1  |   | I. INTRODUCTION  |  |  |  |  |  |  |
|----|---|--|--|--|--|--|--|--|
| 2  | Q:  | Please state your name and business address.   |  |  |  |  |  |  |
| 3  | A:  | My name is Cody VandeVelde. My business address is 818 S. Kansas Avenue,             |  |  |  |  |  |  |
| 4  |   | Topeka, Kansas.  |  |  |  |  |  |  |
| 5  | Q:  | By whom and in what capacity are you employed?                                       |  |  |  |  |  |  |
| 6  | A:  | I am employed by Evergy Metro, Inc. and serve as Senior Director, Strategy and       |  |  |  |  |  |  |
| 7  |   | Long-Term Planning - Energy Resource Management for Evergy Metro, Inc. d/b/a         |  |  |  |  |  |  |
| 8  |   | as Evergy Missouri Metro ("Evergy Missouri Metro"), Evergy Missouri West, Inc.       |  |  |  |  |  |  |
| 9  | d/b/a Evergy Missouri West ("Evergy Missouri West"), Evergy Metro, Inc. d/b/a |  |  |  |  |  |  |  |
| 10 |   | Evergy Kansas Metro ("Evergy Kansas Metro"), and Evergy Kansas Central, Inc.         |  |  |  |  |  |  |
| 11 |   | and Evergy South, Inc., collectively d/b/a as Evergy Kansas Central ("Evergy         |  |  |  |  |  |  |
| 12 |   | Kansas Central") the operating utilities of Evergy, Inc.                             |  |  |  |  |  |  |
| 13 | Q:  | Who are you testifying for?  |  |  |  |  |  |  |
| 14 | A:  | I am testifying on behalf of Evergy Missouri West ("EMW" or "Company").              |  |  |  |  |  |  |
| 15 | Q:  | What are your responsibilities?  |  |  |  |  |  |  |
| 16 | A:  | My responsibilities include development of Evergy's corporate strategy.              |  |  |  |  |  |  |
| 17 |   | Specifically related to this testimony, corporate strategy monitors the execution of |  |  |  |  |  |  |
| 18 |   | Evergy's strategic initiatives, one of which is the advancement of ongoing changes   |  |  |  |  |  |  |
| 19 |   | to Evergy's generation portfolio, including new resource development and             |  |  |  |  |  |  |

- preparation for future retirements. This work is done in partnership with Energy
  Resource Management, which is responsible for the Company's Integrated
- 3 Resource Planning.
- 4 Q: Please describe your education, experience, and employment history.
- 5 A: I hold a Bachelor of Business Administration from Washburn University. Since
- 6 joining Evergy in 2007, I have worked in leadership roles across power marketing,
- 7 investor relations, and corporate strategy departments.
- 8 Q: Have you previously testified in a proceeding at the Missouri Public Service
- 9 Commission ("MPSC" or "Commission") or before any other utility
- 10 regulatory agency?
- 11 A: Yes. I have previously testified at the Federal Energy Regulatory Commission
- 12 ("FERC").
- 13 Q: What is the purpose of your direct testimony?
- 14 A: The purpose of my direct testimony is to describe the current state of affairs related
- to the 300 MW simple-cycle, gas-fired Crossroads Energy Center ("Crossroads")
- generating plant in Clarksdale, Mississippi. I will discuss the reliable service that
- it provides at critical times to EMW's customers, its strategic role in EMW's
- resource planning, and the decisions that EMW needs from the Commission related
- to Crossroads to continue to effectively plan and serve customer demand and
- Southwest Power Pool obligations going forward. I also discuss the Company's
- proposed acquisition of an interest in the Dogwood Energy Center and its request
- that the Commission grant an operating certificate of convenience and necessity
- 23 ("CCN") in Case No. EA-2023-0291.

### 1 Q: Please summarize your testimony, including what is being asked of the

#### **Commission?**

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A:

Over the next few years EMW is facing critical decisions regarding the continued operation of Crossroads. The result of these decisions will have significant implications to EMW's capacity portfolio and its ability to reliably serve customers. If the required firm point-to-point Midcontinent Independent System Operator, Inc. ("MISO") transmission path is not renewed beyond 2029, EMW will lose Crossroads' 300 MW of Southwest Power Pool accredited capacity and its accompanying energy. In order to allow EMW customers to retain the option to continue receiving the benefits of the Crossroads facility beyond 2029, the MISO transmission costs that have been set by a tariff approved by FERC need to be included in rates by the Commission, as these transmission costs are an integral part of Crossroads' cost of service. If the Commission denies recovery of the MISO transmission costs, the Company will not be able to absorb the future cost of this service and will decline to renew the firm point-to-point transmission path agreements beyond 2029, which will require the Company to seek alternative resources to replace the capacity and energy of Crossroads.

Regarding the Dogwood Energy Center, I explain why the Commission should grant EMW an operating CCN and find that the Company's decision to purchase an interest in the plant is prudent. In this case the Commission should include the full amount of the purchase price in rate base and reflect that amount in rates.

| 1  |    | II. THE VALUE OF CROSSROADS TO CUSTOMERS  |
|----|----|---|
| 2  | Q: | Has the MPSC found that EMW's decision to add the 300 MW of Crossroads                  |
| 3  |    | was prudent?  |
| 4  | A: | Yes. In its May 4, 2011 Report and Order in ER-2010-0356 the MPSC concluded:            |
| 5  |    | "After a thorough analysis of available options, the Company determined the 300         |
| 6  |    | MW Crossroads Energy Center was the lowest cost option for meeting its                  |
| 7  |    | requirements." The MPSC also concluded that under a 2010 stipulation in a               |
| 8  |    | previous rate case, the Company's 20-year analysis to determine its preferred           |
| 9  |    | integrated resource plan, based on 2007 Request For Proposal ("RFP") responses,         |
| 10 |    | "showed that Crossroads would result in the lowest 20-year net present value of         |
| 11 |    | revenue requirements ('NVPRR')." <sup>2</sup>   |
| 12 | Q: | Why is NPVRR (Net Present Value of Revenue Requirement) used to                         |
| 13 |    | determine the value to customers?   |
| 14 | A: | NPVRR is used in accordance with the Commission's regulations regarding Utility         |
| 15 |    | Resource Planning Policy, 20 CSR 4240-22.010, et seq. Section 22.010(2)(B)              |
| 16 |    | states that "the utility shall – "(B) Use minimization of the present worth of long-    |
| 17 |    | run utility costs as the primary selection criterion in choosing the preferred resource |
| 18 |    | plan"   |
| 19 | Q: | What value do customers receive from Crossroads today?                                  |
| 20 | A: | Customers receive the full value of capacity and energy produced from Crossroads        |
| 21 |    | via a long-term power agreement. This arrangement has allowed these benefits to         |

flow to customers since 2010 when the Crossroads plant was included in rate base

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 <sup>&</sup>lt;sup>1</sup> ER-2010-0356 Missouri Public Service Commission Report & Order; pg. 85; item 239.
 <sup>2</sup> ER-2010-0356 Missouri Public Service Commission Report & Order; pg. 85; item 239.

and reflected in rates as a prudent investment decision. Currently, EMW customers receive 300 MW of capacity accreditation from the Southwest Power Pool ("SPP"), which is required to fulfill a portion of EMW's reserve margin requirement. Evergy Missouri West, Evergy Metro, Inc. and Evergy Kansas Central are members of SPP, a FERC-approved regional transmission organization ("RTO"). The Crossroads plant is in the footprint of MISO, the FERC-approved RTO that is located immediately to the east of SPP.

A:

### Q: What were the capacity implications for EMW had Crossroads not been a part of its portfolio for the past 14 years?

Crossroads has been an integral resource to meeting EMW's capacity obligation. Without it EMW would have been short on capacity. To fulfill EMW's load obligation, it would have needed to procure capacity through other means to make up for Crossroad's 300 MW of capacity. This would have required incremental investment to build new generation sources, the procurement of wholesale capacity contracts, or a combination of the two. Had EMW not procured capacity in one of these two forms, it would have been subject to capacity deficiency payments to the SPP. These deficiency payments are calculated based on a range of 125% to 200% of SPP's Cost of New Entry ("CONE") which approximates the cost to build new generation. At SPP's current CONE, \$85.61/kW-year, the loss of Crossroads would equate to deficiency payments anywhere from \$32 million to over \$50 million annually for EMW to cover the 300 MWs of capacity that is provided. As discussed below, this cost is far in excess of the annual all-in cost of Crossroads, inclusive of the cost of rate base, operating costs, and the cost to secure firm point-

- 1 to-point transmission service from Crossroads to EMW's service territory under the
- FERC-approved tariff.

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- 3 Q: Do retail rates reflect the full cost of service of providing these capacity and
- 4 energy benefits to customers?

customers in Missouri.

- A: No. A portion of Crossroads generation plant and the full cost of the MISO transmission path is currently excluded from rates. Company witness Darrin Ives' direct testimony in this case explains in more detail the historical events that have resulted in only a portion of Crossroads' cost of service being allowed to be recovered by EMW customers. The current disallowed costs include capital costs associated with a portion of the Crossroads plant's rate base and the annual MISO transmission path expense needed to move power from Mississippi to EMW's
- 13 Q: Does Crossroads provide energy value to EMW customers?
- 14 A: Yes. Crossroads provides energy to the SPP market, typically in peak conditions 15 when customer demand for power is high. Over the past three summers (June 16 through August 2021–2023) Crossroads was dispatched 555 times, with 100% start 17 reliability, and operated 4,258 hours. Moreover, Crossroads was a reliable resource 18 that was critical in meeting peak SPP demand and generating market revenues 19 during Winter Storm Uri in February 2021 and Winter Storm Elliott in December 20 2022 to help offset extremely high market load costs that EMW customers were 21 facing. For example, in February 2021 Crossroads generated over \$25 million of 22 revenue by being available and selling into SPP's day-ahead energy market. Given 23 that Crossroads is supplied by a natural gas pipeline in Mississippi, which was less

| 1             | impacted by the constraints and price spikes caused by Winter Storm Uri, its total  |
|---------------|---|
| 2             | natural gas costs for February 2021 were only \$2.9 million to produce the          |
| 3             | approximately 26,000 MWhs that Crossroads supplied to SPP. This equates to an       |
| 4             | average day-ahead market revenue of \$974 per megawatt-hour ("MWh")                 |
| 5             | generated, compared to a natural gas cost of \$111/MWh <sup>3</sup> .               |
| 6 <b>Q</b> :  | How do EMW customers receive these benefits given that Crossroads is                |
| 7             | located in Mississippi?   |
| 8 A:          | Because the resource is located outside of SPP's transmission network, a long-term  |
| 9             | firm MISO transmission path is required to ensure deliverability of both capacity   |
| 10            | and energy into SPP. Crossroads' units are therefore directed into SPP's market,    |
| 11            | which allows them to be economically dispatched by SPP. Customers also receive      |
| 12            | the benefit of energy market revenues, which lowers the cost to serve their load.   |
| 13 <b>Q</b> : | How long does EMW have rights to the MISO transmission path that allows             |
| 14            | for its customers to receive full capacity and energy benefits?                     |
| 15 A:         | There are currently four separate 75 MW firm point-to-point MISO transmission       |
| 16            | paths that were granted on December 18, 2013. The agreements for these paths        |
| 17            | are set to expire on February 28, 2029. The MISO transmission paths are firm        |
| 18            | point-to-point reservations, which allow the capacity and energy to be delivered to |
| 19            | SPP. The costs associated with these reservations are determined by MISO            |
| 20            | transmission rates which have been approved by FERC. A non-firm point-to-point      |
| 21            | MISO transmission reservation would neither allow for capacity accreditation in     |

<sup>3</sup> Equivalent to natural gas cost of approximately \$8.09/MMBtu.

SPP, nor the market registration that allows Crossroads to participate in SPP's wholesale energy markets.

Unless approved for inclusion in rates and subsequently renewed, upon the expiration of these agreements in February 2029, EMW customers will lose the option to continue receiving Crossroads' capacity and energy benefits as there will be no firm MISO transmission path reservation to allow for the flow of power from Mississippi to Missouri.

#### 8 Q: What is the current cost of the MISO transmission?

A:

9 A: The MISO transmission path cost for the twelve months ending December 31, 2023, was approximately \$16 million under the FERC-approved transmission service tariff.

## 12 Q: Do EMW's customers receive any benefit from Crossroads being in 13 Mississippi?

Yes. Crossroads is supplied by the Texas Gas Transmission ("TGT") pipeline which provides geographic and fuel diversity compared to other natural gas plants located within EMW's service territory. The portion of the TGT pipeline in Mississippi that supplies Crossroads is closer to natural gas production zones than other pipelines within EMW's service territory in western Missouri. Historically, this has usually resulted in cheaper all-in natural gas costs due to lower gas transportation fees. Importantly, the TGT pipeline has less congestion and lower reservation fees when scheduling the natural gas to the plant. Since the TGT pipeline has less congestion, EMW customers are not required to pay for firm transport like they are for plants located on pipelines closer to the EMW customer

base. Instead, EMW can purchase firm delivered gas call options. So rather than paying for firm transport, which is an incurred expense regardless of whether or not the commodity is purchased and flowed to the plant, EMW pays to receive gas supplied by TGT only when the firm delivered gas call option is exercised. This means the cost of firm transport is only incurred at the time the commodity is flowed to the plant and the full costs (transport plus natural gas fees) are included in the commodity charge.

As evidenced during Winter Storm Uri in February 2021, the geographic diversity of Crossroads' gas supply allows the plant to sell power into SPP in times of peak conditions when SPP prices reflect elevated natural gas costs. When Crossroads is dispatched by the SPP and is able to capture its market opportunity potential, the margins benefit EMW customers by partially offsetting other fuel and load costs.

#### What are the expected on-going benefits of Crossroads?

Q:

A:

As the utility industry plans for the energy transition from traditional fossil resources to cleaner renewables, natural gas units like Crossroads are a critical bridge technology to enable decarbonization over time. The broader electrification trends and increasing economic development activities will compound the difficulty of this energy transition as load is expected to grow at a higher pace in the next decade due to the adoption of electric vehicles and other electric technologies. SPP will need dispatchable units like Crossroads to maintain a diverse generation portfolio as more intermittent renewable resources are

interconnected to the system over time<sup>4</sup>. Crossroads' ability to burn readily available natural gas will play a critical role in maintaining reliable operations while new technologies like hydrogen generation, battery storage, and small modular nuclear reactors become commercially available at scale and economically viable. How is Crossroads evaluated in EMW's Integrated Resource Plan ("IRP")? Historically, the Crossroads facility was assumed to be available to meet capacity and energy needs throughout the 20-year planning period. This is consistent with historical IRP treatment of other peaking facilities which are typically not evaluated for retirement unless there is a large near-term cost expected or, as is the case with Crossroads, some other near-term decision-point which impacts the plant (e.g., expiring agreements or potential environmental regulations). The IRP does not apply SPP transmission costs to the individual assets, rather the SPP Network Transmission Service is charged directly to load-serving entities based on demand, not resources. The SPP transmission associated with Crossroads is treated the same as all other resources, but because Crossroads is uniquely located outside of SPP, the IRP model includes the MISO transmission expense in order for the model to

#### Q: What is EMW's future capacity position?

appropriately evaluate its all-in cost of service.

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Q:

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EMW has a near-term capacity need. As seen in Figure 1 below, which reflects the capacity position of EMW from the 2023 IRP Annual Update, EMW's capacity need in 2026 is approximately 300 MW and is forecasted to grow to over 850 MW

<sup>&</sup>lt;sup>4</sup> According to SPP's Commercial Operating Date Forecast, as of January 2024, between 2024 and 2030 there are approximately 109 GW of Active Study Future Generation within SPP. Of that, wind and solar comprise 65 GWs or 60%, whereas there is only 6 GW of traditional thermal, less than 6%.

by the mid-2030s. Of note, this analysis assumes that the Crossroads plant continues as a 300-MW capacity resource.

3 FIGURE 1

Evergy Missouri West (EMW) Capacity Balance (MW)

A:



Q: How has EMW fulfilled its previous capacity needs?

In recent years, EMW has relied upon market capacity to meet a portion of its capacity needs. Much of EMW's market capacity has been supplied by its capacity purchases from Evergy Metro. Looking forward, EMW's future capacity purchases from Metro range from 200-275 MW annually from 2024 through 2028. In 2029, the year the Crossroad's MISO transmission path agreement expires, Metro's net capacity position is challenging. Looking beyond 2030, Metro faces capacity needs of its own, given the planned retirement of the coal-fired La Cygne 1 generating plant in 2032. Metro's needs could accelerate as economic development, combined with increasing Resource Adequacy Requirements or more stringent environmental rules impacting the viability of coal-fired plants, impact Metro's capacity position.

The SPP capacity market in general is tightening and will not likely be as dependable to meet capacity obligations in the future as it has been for EMW in the past. SPP's 2023 Resource Adequacy Report filed in June 2023 states: "The SPP Balancing Authority Area Planning Reserve Margin is 20.1% for the 2023 Summer Season and decreases to 9.7% by planning year 2028".

## Q: How does EMW expect to meet its future capacity requirements given its forecasted short net position?

EMW's Preferred Plan filed in the 2023 IRP includes a mix of solar, wind, and natural gas to meet these needs. Figure 2 represents the fuel type and sequence expected to be added 2024-2030.

11 FIGURE 2

| Gross New MWs In-Service |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|
| EMW                      | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| Wind                     | -    | -    | -    | -    | -    | -    | 150  | 150  |
| Solar                    | -    | -    | -    | 150  | -    | 150  | -    | -    |
| Combined Cycle           | -    | 143  | -    | -    | 260  | -    | -    | -    |
| Total                    | -    | 143  | -    | 150  | 260  | 150  | 150  | 150  |

A:

A:

Q: What are the implications of the Commission continuing to deny cost recovery of the MISO transmission path expense that is required to bring Crossroads capacity and energy to EMW?

Without preapproval of different rate treatment for the MISO transmission expense starting in this rate case, Evergy does not plan to renew or extend the four 75 MW firm point-to-point MISO transmission path agreements beyond February 2029. This would effectively render the Crossroads generating plant useless as far as its capacity value to EMW customers. Without the firm MISO transmission path,

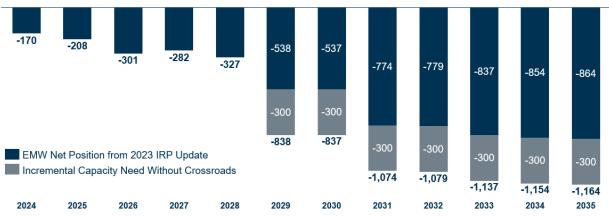
<sup>&</sup>lt;sup>5</sup> https://www.spp.org/documents/69529/2023%20spp%20june%20resource%20adequacy%20report.pdf

Crossroads energy cannot be delivered into SPP on a firm basis and, more specifically, into EMW's service territory. Because the energy would no longer be deliverable from Crossroads and could not be claimed as capacity for the reserve margin requirements of SPP, EMW's accredited capacity would be reduced. The net position reflected in Figure 1 above would effectively be decreased by 300 MW starting in 2029 and beyond, as reflected in Figure 3.

7 FIGURE 3

Evergy Missouri West (EMW) Capacity Balance (MW)

A:



\* Assumes SPP's Effective Load Carrying Capability (ELCC) accreditation in all years.

#### III. IRP OVERVIEW AND TREATMENT OF CROSSROADS

#### Q: Please describe the IRP process in Missouri.

The IRP process is completed under the Commission's Electric Utility Resource Planning Rules found in 20 CSR 4240-22. The IRP process results in the selection of a Preferred Plan, which reflects the combination of supply-side and demand-side resources that EMW will use to meet forecasted customer requirements for the next twenty years.

#### Q: What is Evergy's objective in the IRP process?

A:

A:

Evergy is guided by the Commission's Rule at 20 CSR 4240-22.010(2) which states: "The fundamental objective of the resource planning process at electric utilities shall be to provide the public with energy services that are safe, reliable, and efficient, at just and reasonable rates, in compliance with all legal mandates, and in a manner that serves the public interest and is consistent with state energy and environmental policies." To achieve this objective, the IRP is performed using minimization of net present value of revenue requirements ("NPVRR") as the primary objective function. The IRP also considers potential risks and uncertainties which could impact the economics of a resource plan ("critical uncertain factors"), and compares demand-side and supply-side resources on an equivalent basis.

### Q: Why is the IRP process relevant to the discussion of Crossroads transmission costs in this case?

As described above, unless the Commission deems the MISO transmission path costs recoverable, thus allowing the transmission agreement to be extended beyond 2029, the 300 MW Crossroads asset will no longer be available as capacity in the IRP to meet EMW customers' needs. —The IRP process is the appropriate mechanism through which alternative capacity options are assessed and ultimately selected as part of EMW's updated Preferred Plan if the Crossroads transmission agreement is not extended.

1 Q: Why is the IRP the appropriate mechanism to assess EMW's needs and what
2 resources are most effective in meeting those needs?

0:

A:

A:

The IRP is built with EMW's long-term load forecast as its foundation and starting point. This load forecast represents EMW customers' need for energy over the next 20 years, and the peak in each year establishes EMW's capacity requirement (i.e., the amount of accredited capacity required to meet SPP resource adequacy requirements). Within the IRP, every evaluated plan is built in order to meet these customer needs, meaning that every plan includes sufficient capacity and energy to meet EMW needs. From there, the IRP process determines which of those plans is lowest-cost on a risk-adjusted basis.

As a result, a Preferred Plan selected from the IRP is the combination of resources which most effectively and economically meet EMW customer needs over the long-term, based on integrated risk analysis in a wide variety of potential scenarios. This integrated, long-term analysis is the appropriate way to assess customer needs and different resources because no resource decision can be made in a vacuum. Any decision made regarding a resource at a point in time will impact the decisions that need to be made in the future. The IRP assesses those trade-offs over time through the construction of lowest-cost resource plans over a 20-year period.

## How will the potential expiration of the Crossroads transmission agreement be evaluated in the upcoming 2024 Triennial IRP?

The 2024 Triennial IRP is planned to be filed on April 1, 2024. In that filing, the Preferred Plan will be constructed assuming that Crossroads transmission costs are

recovered from customers, as requested in this case, and that the agreement is ultimately extended beyond 2029 to keep the asset available to EMW customers. A contingency plan will be evaluated that assumes the transmission agreement is not extended because the costs are not deemed recoverable in this case, and that identifies the next lowest-cost plan which replaces the capacity and energy currently provided by Crossroads. If the Commission decides that the transmission costs should not be recovered by EMW in this case, that contingency plan will become the new Preferred Plan and EMW will begin executing on it. The comparison of this contingency plan and the Preferred Plan selected through the 2024 IRP process will be available to support future rounds of testimony in this case.

Q:

A:

### IV. FUTURE DECISIONS REGARDING ALTERNATIVE CAPACITY COSTS AND TIMING

What are the implications for EMW and its customers if Crossroads is lost as a capacity resource in 2029?

EMW's current and future capacity obligations, as well as SPP's reserve margin requirements, will not change regardless of the Commission's decision on the recovery of the MISO transmission path expense. Thus, EMW will need to replace Crossroads with another resource, ideally with a resource of similar dispatch characteristics. While this resource will very likely be situated in the Southwest Power Pool and thereby avoid the equivalent transmission costs of Crossroads, it is likely to be more expensive overall. The IRP may select to build new dispatchable resource options like simple-cycle natural gas turbines, comparable to the Crossroads plant. With EMW's 2023 IRP Preferred Plan having projected a new

| 1  |    | 260 MW combined-cycle resource in 2027, the long-term integrated planning              |
|----|----|--|
| 2  |    | analysis may suggest increasing the size of this resource to cover the 300 MW of       |
| 3  |    | Crossroads.  |
| 4  | Q: | What are the current cost projections to build new dispatchable generation             |
| 5  |    | similar to Crossroads?   |
| 6  | A: | The U.S. Energy Information Administration's ("EIA") Southwest Power                   |
| 7  |    | Pool/Central forecast from March 2023 estimates the overnight costs for an             |
| 8  |    | industrial frame combustion turbine at \$857/kW. This could be considered a            |
| 9  |    | conservative cost assumption for new construction combustion turbines as               |
| 10 |    | numerous Midwest U.S. utilities have filed recent IRPs that project the cost to be     |
| 11 |    | \$1,000/kW or more. The same EIA report estimates overnight costs for a                |
| 12 |    | combined-cycle gas turbine in the range of \$1,163 to \$1,309/kW.6                     |
| 13 | Q: | How do the annual revenue requirements of Crossroads compare to that of                |
| 14 |    | new dispatchable generation?   |
| 15 | A: | The currently allowed annual revenue requirement for Crossroads is approximately       |
| 16 |    | \$5 million. <sup>7</sup> When combined with the current annual MISO transmission path |
| 17 |    | expense of \$16 million under the FERC-approved transmission service tariff, the       |
| 18 |    | all-in annual revenue requirement would be approximately \$21 million. Assuming        |
| 19 |    | the plant runs for another twenty years, and the MISO transmission expense             |

<sup>&</sup>lt;sup>6</sup> <a href="https://www.eia.gov/outlooks/aeo/assumptions/pdf/elec cost perf.pdf">https://www.eia.gov/outlooks/aeo/assumptions/pdf/elec cost perf.pdf</a>. The EIA is the statistical and analytical agency within the U.S. Department of Energy. Evergy uses EIA's generation resource costs as inputs for IRP modeling and Preferred Plan analysis.

<sup>&</sup>lt;sup>7</sup> Includes return on generation rate base, depreciation, non-fuel operations and maintenance, property tax, and property insurance expenses. Excludes fuel-related expenses.

| continues to increase at the same pace as it has since 2014, the twenty-year NPVRR |
|--|
| of Crossroads is estimated to be approximately \$281 million.8                     |

A:

A:

For comparison purposes, if Crossroads were replaced by 300 MWs of newly-built simple-cycle combustion turbines built in SPP in 2024, the estimated annual revenue requirement, excluding fuel, in year one is around \$39 million. The twenty-year NPVRR of the new turbines would be approximately \$366 million.

### Q: Why does EMW need an answer from the Commission on the Crossroads issues in this case?

As EMW is currently planning to file its 2024 Triennial IRP, now is the right time. The Commission's decision in this case has significant implications on capacity needs starting in 2029. If the Commission denies the Company's request and the MISO transmission path expires, EMW must develop a contingency plan in the 2024 Triennial IRP and begin executing on that contingency plan. Because the next Triennial IRP will not occur until 2027 and considering the long lead times associated with the potential construction of new generation, it would be too late for the Company to properly evaluate the options and for EMW to complete the construction of new generation to replace Crossroad's capacity and energy.

# Q: Is EMW requesting the recovery of any other new Crossroads cost in addition to the MISO transmission path expense?

No. EMW requests full recovery of future MISO firm point-to-point transmission path expenses to allow EMW customers to continue to benefit from energy being delivered from Crossroads in Mississippi to Missouri. EMW is not requesting

<sup>&</sup>lt;sup>8</sup> The Crossroads MISO transmission expense has increased at a 3.0 % compound annual growth rate 2014 – 2023.

| 1 | future rate | base recovery | of any | y of the | disallowed | portion of | generation rat | te base |
|---|-------------|---------------|--------|----------|------------|------------|----------------|---------|
|   |             |               |        |          |            |            |                |         |

- 2 The Company is also not requesting recovery of any past disallowed costs of either
- 3 MISO transmission expenses or past amounts of disallowed Crossroads' generation
- 4 rate base.
- 5 Q: Is EMW requesting full recovery of the MISO transmission path expense in
- 6 this case?
- 7 A: Yes. EMW requests full recovery of the cost of future MISO firm point-to-point
- 8 transmission path expense to allow EMW customers to continue to benefit from
- 9 energy being delivered from Crossroads to Missouri. The annual retail revenue
- requirement expense attributable to the MISO transmission path in this case is
- approximately \$16.5 million. This equates to an estimated increase of \$0.002/KWh
- for EMW's total retail customer rate, or a 1.9% increase to EMW's existing revenue
- requirement.

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### 14 V. INCLUSION OF DOGWOOD ENERGY CENTER PURCHASE IN RATE 15 BASE

- 16 Q: Please describe the Dogwood purchase.
- 17 A: The purchase of 22.2% of the 668 MW natural gas, combined cycle Dogwood
  18 Energy Center was identified as part of the lowest-cost resource plan to meet
  19 EMW's near- and long-term needs for capacity and energy. This purchase will be
  20 completed in June if a CCN is granted along with an order indicating that the
  21 acquisition of Dogwood at the purchase price is prudent. Following the completion
  22 of the purchase, this asset will be included in EMW's rate base at the time of the
  23 true-up filing in this case. A much more fulsome description of the asset, the

process by which it was selected, and the requirements for closing the transaction

has been provided in testimony in the Dogwood CCN case, No. EA-2023-0291 that
 was filed on November 8, 2023.

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A:

## Q: Why do you believe that the CCN should be granted and the purchase deemed prudent?

As described in Kayla Messamore's testimony in EA-2023-0291, EMW has both near-term and long-term needs for physical capacity, physical energy, and a hedge against the SPP energy market. Dogwood was selected in the 2023 IRP as part of the lowest-cost plan to meet EMW needs in every modeled scenario and produces \$90 million to \$110 million in NPVRR savings in low-carbon and mid-carbon restriction scenarios. The purchase price that was negotiated for Dogwood was the product of a request for proposal from alternative capacity providers, followed by extensive arms-length negotiations with the current Dogwood owners. Dogwood compares favorably to market capacity and new build alternatives and provides additional benefits: (1) efficient, low-cost energy production which can produce net SPP revenues to partially offset fixed costs; (2) eliminated construction risk because it is an operating asset; (3) favorable transmission location in EMW's service territory; (4) resilient natural gas supply from two pipelines; and (5) additional dispatchable capacity to support reliability. While Dogwood does not meet all of EMW's needs for capacity, energy, or a market hedge, it is a valuable first step toward meeting those needs through a low-cost, reduced-risk operating asset. For these reasons, the full amount of the Dogwood purchase price should be reflected in rate base.

#### VI. SUMMARY

#### 2 Q: Please summarize your testimony.

A:

Continuing the MISO transmission path that allows Crossroads to serve EMW customers beyond February 2029 is in the best interest of EMW's customers. The Company would prefer to exercise this option to extend the MISO firm transmission path beyond February 2029 so that its customers will continue to receive the benefits of Crossroads and to avoid the replacement cost of new generation. However, the renewal of the transmission path and the option to retain Crossroads are dependent on the Commission allowing MISO transmission path expenses to be recovered in EMW's retail rates going forward. If the Commission does not allow for the full recovery of future MISO transmission expenses, EMW will need to pursue alternative contingency resources, which will be informed by EMW's 2024 Triennial IRP filing, in order to replace the 300 MW of Crossroads capacity beyond February 2029.

As noted above, the full amount of the Dogwood purchase price should be included in rate base and reflected in the Company's rates.

#### 17 Q: Does that conclude your testimony?

18 A: Yes, it does.

#### BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

| In the Matter of Evergy Missouri West, Inc. d/b/a Evergy Missouri West's Request for Authority to Implement A General Rate Increase for Electric Service  Case No. ER-2024-0189  Case No. ER-2024-0189 |
|--|
| AFFIDAVIT OF CODY VANDEVELDE   |
| STATE OF MISSOURI ) ) ss   |
| COUNTY OF JACKSON )  |
| Cody VandeVelde, being first duly sworn on his oath, states:   |
| 1. My name is Cody VandeVelde. I work in Topeka, Kansas and I am employed by   |
| Evergy Metro, Inc. as Senior Director, Strategy and Long-Term Planning - Energy Resource   |
| Management.  |
| 2. Attached hereto and made a part hereof for all purposes is my Direct Testimony  |
| on behalf of Evergy Missouri West consisting of twenty-one (21) 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.  Cody YandeVelde   |
| Subscribed and sworn before me this 2 <sup>nd</sup> day of February 2024.  Notary Public   |
| My commission expires: 4/2u/2ussion expires: 4/2u/2ussion expires: 4/2u/2ussion expires: 4/2u/2ussion expires: 4/2u/2ussion expires april 26, 2  |

ANTHONY R, WESTENKIRCHNER NOTARY PUBLIC - NOTARY SEAL STATE OF MISSOURI MY COMMISSION EXPIRES APRIL 26, 2025 PLATTE COUNTY COMMISSION #17279982