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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EF-2022-0155

DIRECT TESTIMONY

OF

JOHN BRIDSON

ON BEHALF OF

EVERGY MISSOURI WEST

Kansas City, Missouri

March 2022

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DIRECT TESTIMONY

OF

JOHN BRIDSON

Case No. EF-2022-0155

I. INTRODUCTION

1 **Q: Please state your name and business address.**

2 A: My name is John Bridson. My business address is 818 S. Kansas Avenue, Topeka, Kansas
3 66612.

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

5 A: I am employed by Evergy Kansas Central, Inc. and serve as Vice President – Generation
6 for Evergy Metro, Inc. d/b/a Evergy Kansas Metro (“Evergy Kansas Metro”), Evergy
7 Kansas Central, Inc. and Evergy South, Inc., collectively d/b/a as Evergy Kansas Central
8 (“Evergy Kansas Central”), Evergy Metro, Inc. d/b/a as Evergy Missouri Metro (“Evergy
9 Missouri Metro”), and Evergy Missouri West, Inc. d/b/a Evergy Missouri West¹ (“Evergy
10 Missouri West”). These are the operating utilities of Evergy, Inc. (“Evergy”).

11 **Q: On whose behalf are you testifying?**

12 A: I am testifying on behalf of Evergy Missouri West, Inc. d/b/a Evergy Missouri West
13 (“Evergy Missouri West,” “Company” or “EMW”) in support of the approval of the
14 Company’s Application for a Financing Order authorizing the financing of Qualified
15 Extraordinary Costs through an issuance of Securitized Utility Tariff Bonds
16 (“Securitization Bonds”).

¹ Effective October 7, 2019, Evergy Missouri West adopted the service territory and tariffs of KCP&L Greater Missouri Operations Company (“GMO”).

1 **Q: What are your responsibilities?**

2 A: I am responsible for the Evergy generating fleet, which includes coal, gas and renewables,
3 and have an oversight role of our nuclear plant as a member of the board of directors of
4 Wolf Creek Nuclear Operating Corporation. Additionally, I lead the power marketing
5 group that manages our assets in the SPP marketplace and procures the fuel that is used to
6 generate electricity from our plants.

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

8 A: I received a Bachelor of Science in Mechanical Engineering in 1992 from Kansas State
9 University. I began working for Western Resources, a predecessor of Evergy in January
10 1993 as an engineer at the Jeffrey Energy Center. I worked in various supervisory and
11 management roles at that plant before becoming the Executive Director of Gas Plants in
12 2001. Later I was the plant manager at Lawrence Energy Center. I then led Westar
13 Energy's Generation and Power Marketing groups as Senior Vice President prior to the
14 merger that created Evergy when I became the Vice President of Generation, now
15 overseeing Evergy's Fossil and Renewable assets and Evergy's Power Marketing group.
16 In these roles I have been involved with all aspects of generation and power marketing
17 activities including capacity and energy planning.

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

20 A: I have not testified before the Missouri Public Service Commission but have sponsored
21 testimony several times at the Kansas Corporation Commission.

1 **Q: What is the purpose of your testimony?**

2 A: The purpose of my testimony is to: (i) describe Evergy Missouri West’s generation fleet
3 and its approach to fuel and purchased power procurement; (ii) discuss EMW’s
4 preparations for Winter Storm Uri; (iii) describe EMW’s operations during Winter Storm
5 Uri and (iv) explain that the Company’s conduct throughout this period was consistent with
6 recognized industry standards and good utility practices, and that the costs that EMW seeks
7 to finance through the Securitization Bonds were prudently and reasonably incurred as a
8 result of the extreme and anomalous conditions of Winter Storm Uri.

9 **II. EVERGY MISSOURI WEST’S GENERATION FLEET AND APPROACH TO**
10 **FUEL PROCUREMENT**

11 **Q: Please describe the Company’s generation fleet.**

12 A: Evergy Missouri West has an owned and purchase power agreement generation fleet made
13 up of natural gas, wind, solar, landfill gas, coal, and fuel oil resources with a total capability
14 of over 2,400 megawatts (“MWs”). These resources are listed in Table 1 below.

15 **Table 1:**

Resource Name	Generation Type	Economic Max Capacity (MW)
Crossroads 1	Natural Gas	75
Crossroads 2	Natural Gas	75
Crossroads 3	Natural Gas	75
Crossroads 4	Natural Gas	75
Ralph Green 3	Natural Gas	63
South Harper 1	Natural Gas	117
South Harper 2	Natural Gas	117
South Harper 3	Natural Gas	117
Greenwood 1	Dual Fuel	55
Greenwood 2	Dual Fuel	55
Greenwood 3	Dual Fuel	55

Resource Name	Generation Type	Economic Max Capacity (MW)
Greenwood 4	Dual Fuel	55
Lake Road 1	Dual Fuel	20
Lake Road 2	Dual Fuel	25
Lake Road 3	Dual Fuel	8
Lake Road 4	Dual Fuel	96
Lake Road 5	Dual Fuel	62
Lake Road 6	Fuel Oil	18
Lake Road 7	Fuel Oil	18
Nevada	Fuel Oil	17
Prairie Queen	Wind	110
Osborn	Wind	80
Pratt	Wind	134
Rock Creek	Wind	120
Cimarron Bend III	Wind	130
Ensign	Wind	98.9
Gray	Wind	110
Iatan 1	Coal	119
Iatan 2	Coal	153
Jeffrey 1	Coal	58.8
Jeffrey 2	Coal	58.4
Jeffrey 3	Coal	58.24
Greenwood Solar	Solar	3
St. Joe Landfill Gas	Landfill Gas	1.6
<i>TOTAL</i>		<i>2,432.94</i>

1 **Q: How does EMW secure the resources to provide electricity to its customers?**

2 A: EMW is responsible for the procurement of the fuel resources for its fleet which I describe
3 in detail below. EMW is a member of Southwest Power Pool, Inc. (“SPP”), the regional
4 transmission organization (“RTO”) that is mandated by the Federal Energy Regulatory

1 Commission (“FERC”) to ensure the reliable supply of electric power to its members
2 through competitive wholesale electricity markets. To carry out this mandate, SPP
3 operates a day-ahead market, a real-time balancing market, and a congestion hedging
4 market which are known as the SPP Integrated Marketplace.

5 **Q: In general, how does EMW’s interface with the SPP Integrated Marketplace (“IM”)**
6 **operate?**

7 A: EMW, like all SPP members, sells all of the energy that it generates into the IM, providing
8 information such as generation unit parameters and offer curves to both the day-ahead and
9 real-time energy markets. Similarly, EMW purchases all the energy necessary to serve its
10 native load customers from SPP through demand bids that it submits to the IM. This
11 integrated electricity market allows SPP to monitor energy costs from multiple sources and
12 to decide which generators should operate, with the goal of balancing supply and demand,
13 promoting cost effectiveness, and ensuring grid reliability.

14 **Q: Please describe Evergy’s approach to procure the fuel necessary to run its generation**
15 **fleet.**

16 A: On an annual basis, Evergy uses the PROMOD[®] IV (“PROMOD”) production cost model
17 to project expected fuel burn for its coal, natural gas, and oil-fired generating units for the
18 next five years. PROMOD is a widely used production cost computer modeling tool that
19 is relied upon by dozens of regulated public utilities in the United States to develop the
20 appropriate generation and purchased power levels, and resulting fuel cost, purchased
21 power cost, and off-system sales revenue. In addition to the annual PROMOD forecast,
22 Evergy regularly assesses market and operating conditions, and the potential impacts to

1 near-term fuel burn requirements. In general, fuel procurement for coal, natural gas, and
2 #2 ultra-low sulfur diesel (“fuel oil”) is handled as described below:

- 3 • Coal: Overall, Evergy follows a strategy of laddering into a portfolio of forward
4 contracts for Powder River Basin (“PRB”) coal. Laddering is an investment
5 technique of purchasing multiple products with different maturity dates. Evergy’s
6 “laddered” coal portfolio consists of forward contracts with staggered terms so that
7 a portion of the portfolio rolls over each year. As a general rule, Evergy looks one
8 to three years ahead when procuring coal with the primary focus being on year 1
9 and year 2. The closer Evergy is to a given operating year, the higher the coal
10 commitment percentage will be, as compared to expected coal burn for that year
11 plus coal inventory rebuild requirements, if any. In order to allow for enough
12 flexibility to accommodate unexpected changes or operating conditions (e.g.,
13 unusually mild weather leading to lower than forecasted demand), Evergy will
14 typically go into an operating year with approximately ** [REDACTED] ** of its projected
15 coal volume requirements committed and will proceed with subsequent coal
16 purchases on an intra-year basis as needed based upon actual operations and any
17 burn projection changes. It should be noted that the strategy discussed above may
18 be modified when there are anticipated market price increases. On such occasions
19 Evergy may choose either to commit for more coal before the increase, or to delay
20 committing until after the increase has waned.

21 The coal for Evergy Missouri West’s share of the Iatan Station (“Iatan”) in
22 Platte County, Missouri and the Jeffrey Energy Center (“Jeffrey”) in Pottawatomie
23 County northwest of Topeka, Kansas is procured in the manner described above by

1 the stations' owner-operators, Evergy Metro and Evergy Kansas Central,
2 respectively. Evergy Missouri West procures coal for its Lake Road Generating
3 Station in St. Joseph. Based on the very small volumes of coal burned at the station,
4 coal is typically purchased only a few trains at a time on a prompt or intra-year
5 basis.

- 6 • Natural Gas: Given the low utilization factor of the natural gas fleet in the SPP
7 energy markets, Evergy typically purchases physical natural gas on a next day
8 and/or same day basis. Evergy's natural gas buyers work closely with the day-
9 ahead planning group to plan for estimated prices and estimated volumes of natural
10 gas needed at the Evergy facilities. Price discovery is done through direct contact
11 with multiple counterparties to determine the bid/ask spread and by compiling
12 market information from electronic trading platforms such as Intercontinental
13 Exchange (ICE). Estimated volumes needed are developed by using previous day
14 burns and current pipeline imbalances (if any) as well as looking at projected
15 weather patterns that impact our local footprint and the SPP footprint. This
16 projection also considers the forecasted wind production in SPP for the period that
17 natural gas is being procured. Evergy can buy both Gas Daily Index and fixed price
18 gas.

19 Evergy's pricing on natural gas used in the generation offers, follows the
20 fuel policies approved by the SPP Market Monitoring Unit ("MMU") that are
21 specific for the generating units. Natural gas is secured under both the National
22 Association of Energy Standards Board (NAESB) contracts and under the
23 International Swaps and Derivatives Association (ISDA) gas annexes from

1 multiple sources. Both long-term and short-term competitive transportation
2 agreements are negotiated and maintained with Panhandle Eastern Pipe Line
3 Company (“Panhandle”), Texas Gas Transmission (“Texas Gas”), and Southern
4 Star Central Gas Pipeline (“Southern Star”) for use by Evergy Missouri West.

- 5 • Fuel Oil: Aside from fuel oil utilized at the Iatan and Jeffrey units for flame stability
6 and unit start-ups, the majority of fuel oil procured for Evergy Missouri West is
7 either as a backup to natural gas or as the primary fuel for its combustion turbine
8 (“CT”) peaking units. Evergy Missouri West’s CT fleet has considerable storage
9 capability on-site and, as such, the Company has fuel oil inventory targets for each
10 CT location. Inventory targets are considered to be the inventory level that we aim
11 to maintain, on average, during normal times. Typically, fuel oil is procured for
12 the CT fleet such that our fuel oil inventory targets are met or even exceeded going
13 into the winter or summer peak season. As fuel oil is utilized, then it is replaced as
14 appropriate depending on operating and market conditions. Depending on peak
15 season burn, inventories may be lower than target across the fall and spring
16 shoulder seasons as purchases for inventory rebuild occur and are delivered ahead
17 of the next peak season.

18 **Q: What were Evergy Missouri West’s hedging practices before and during Winter**
19 **Storm Uri?**

20 **A:** EMW suspended its hedging activities pursuant to a September 20, 2016 Non-Unanimous
21 Stipulation and Agreement (“Agreement”) in a previous rate case, No. ER-2016-0156. The
22 Agreement was approved on September 28, 2016 by the Commission and contained the
23 following provisions:

1 The Signatories agree that GMO will suspend all of its hedging activities
2 associated with natural gas (cross-hedging related to purchased power and
3 natural gas fuel hedging). Upon approval of this Stipulation, GMO will
4 expeditiously proceed to unwind all of its hedges associated with natural
5 gas. Any gains or losses from the unwinding of the natural gas hedges will
6 be flowed through GMO's Fuel Adjustment Clause ("FAC") without
7 disallowance.

8 The Signatories agree GMO may resume its natural gas fuel hedging
9 activities (but not use natural gas derivatives to cross-hedge purchased
10 power) should the market place and/or other factors change such that
11 resuming natural gas fuel hedging activities would be warranted. GMO
12 agrees to notify the Commission Staff and the Office of the Public Counsel
13 ("Public Counsel") if GMO decides to resume its natural gas fuel hedging
14 activities.

15 In the event GMO resumes natural gas fuel hedging activities, GMO will
16 record all hedging gains to FERC Account 254, Regulatory Liability and
17 hedging losses to FERC Account 182.3 Other Regulatory Assets or FERC
18 Account 186, Deferred Debits.²

19 **Q: Has Evergy Missouri West made any changes to its hedging activities since Winter**
20 **Storm Uri?**

21 **A:** Yes. On December 17, 2021, EMW notified the Commission that due to changes in the
22 natural gas market and current SPP conditions, and after discussions with Staff, the Office
23 of the Public Counsel, and other parties to the 2016 rate case, the Company intended to
24 institute hedging transactions of natural gas and purchased power (including cross-
25 hedging) for the settlement periods January 2022 through April of 2022.

26 Regarding the requested resumption of hedging transactions of natural gas and
27 purchased power (including cross-hedging), the Company stated that it will record all
28 hedging gains to FERC Account 254 (Other regulatory liabilities) and hedging losses either
29 to FERC Account 182.3 (Other regulatory assets) or FERC Account 186 (Miscellaneous

² See Non-Unanimous Stipulation and Agreement, § 5 at p. 3, In re KCP&L Greater Mo. Operations Co. Gen'l Rate Case, No. ER-2016-0156 (Sept. 20, 2016).

1 deferred debits), all contained in the Uniform System of Accounts, as specified in the
2 Agreement.

3 **Q: Does Evergy secure contracts for firm transport on any natural gas pipelines so that**
4 **the fuel can reach the power plants?**

5 A: Yes, Evergy personnel manage the capacity on the relevant natural gas pipelines. Evergy
6 Missouri West has both long-term and short-term firm transport arrangements with
7 Panhandle, Texas Gas, and Southern Star. These contracts accommodate the delivery of
8 fuel to some of our gas fired units, at our South Harper, Lake Road and Crossroads
9 facilities.

10 **Q: Has the Company made any changes to its natural gas contracts in recent years?**

11 A: Yes, in 2021 Evergy Missouri West added 7,000 Dth/day of market area capacity on the
12 Southern Star pipeline for its Ralph Green 3 station. Additionally, EMW added 12,600
13 Dth/day of field area capacity on Panhandle pipeline for the South Harper units. Both of
14 these contracts were executed in October 2021 for the period November 2021 through
15 March 2022.

16 **III. EVERGY MISSOURI WEST PREPARATIONS FOR WINTER STORM URI**

17 **Q: How has the Company prepared for extreme weather events like Winter Storm Uri?**

18 A: EMW has multiple emergency operations preparedness and response plans in place to
19 prepare for extreme weather events and emergency conditions. It utilizes the Extreme
20 Weather Operations plan that details the actions required during such weather, including
21 step by step directions for conducting manual load shed activities. Additionally, the
22 Company follows Evergy's Blackstart and System Restoration plan that is reviewed and
23 tested annually by all Evergy Transmission System Operators and Generation System

1 Operators. The Blackstart and System Restoration plan details the steps required to re-
2 energize the Bulk Electric System (“BES”) in the event of widespread, uncontrolled
3 outages. Additionally, exercises of the Blackstart and System Restoration plan are
4 conducted quarterly with SPP and its other member electric utilities to practice
5 coordination and effective communication, and to ensure the effectiveness of the
6 established plans. Following the Blackstart and System Restoration exercises, Evergy
7 updates the plans based on any lessons learned from the exercise.

8 EMW also maintains a Loss of Control Center functionality plan that allows for
9 operations to be resumed within a short amount of time in the event the primary
10 Transmission Control Center loses operational capability. This plan is tested annually to
11 ensure that backup Transmission Control Centers are functioning properly, and to verify
12 transfer of control to backup operations. Following each exercise, the plan is assessed and
13 updated with any lessons learned from the exercise.

14 Evergy followed its normal preparation activities for the 2020-21 winter weather
15 season. The generation fleet began its winter preparation activities in accordance with
16 Evergy’s winter preparedness process which follows the North American Electric
17 Reliability Corporation’s (“NERC”) Generating Unit Winter Weather Readiness
18 Reliability Guideline. NERC is the electric reliability organization designated by FERC to
19 oversee the reliability and adequacy of the BES in North America. This Reliability
20 Guideline requires that specific electric plant preparation activities be documented and
21 completed annually by December 1. These numerous specific activities are documented in
22 the power plants work management systems. Following the Reliability Guideline,

1 Evergy's generating fleet, including that of EMW, completed winterization activities to
2 prepare for cold weather prior to Winter Storm Uri.

3 **Q: How did Evergy keep informed regarding the weather conditions leading up to Winter**
4 **Storm Uri?**

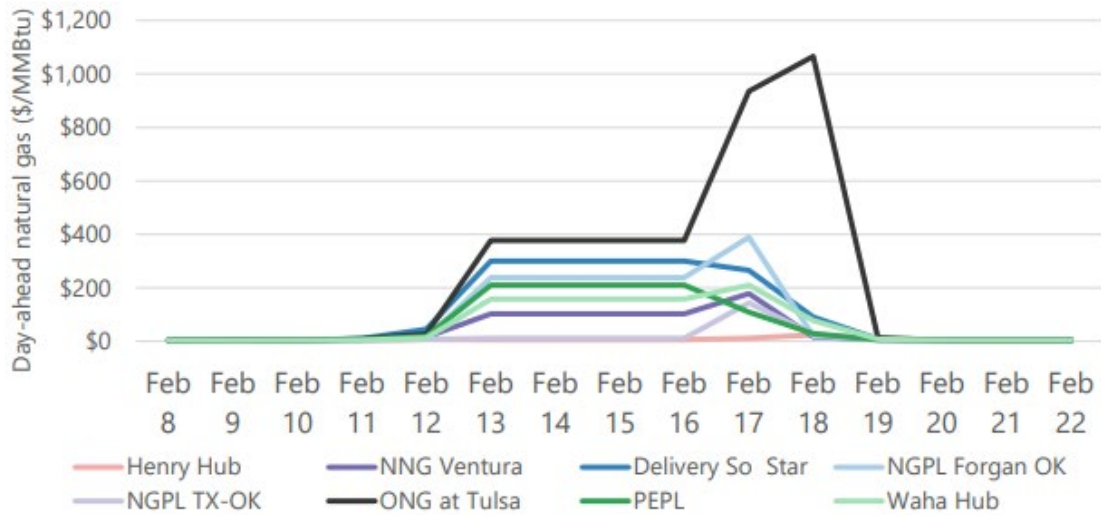
5 A: Evergy relies on and monitors several different weather forecasting services so that it is
6 fully aware of anticipated weather, both in its service territories and in the SPP region, with
7 its focus being on weather conditions expected in the next seven days. Evergy has engaged
8 Forecasts Unlimited, an independent meteorology firm, to provide daily regional and
9 national weather information. Evergy also utilizes WSI Trader, an Atmospheric G2
10 company, which provides both regional and national daily forecasts, 6-10 day forecasts, 11-
11 15 day forecasts, seasonal forecasts, and U.S. gas degree day forecasts. Evergy also relies
12 on reliable governmental public sites such as the National Oceanic and Atmospheric
13 Administration (NOAA) and the National Weather Service, as well as wind forecasts
14 published by SPP.

15 **Q: How did natural gas prices change going into Winter Storm Uri?**

16 A: First of the month February pricing on regional natural gas indexes, such as Southern Star
17 and Panhandle, were below \$3/MMBtu. Even as late as February 8, balance of the month
18 gas was priced in the mid- \$3/MMBtu range. However, natural gas price started a sudden
19 and rapid rise around February 10, with Southern Star rising to \$300/MMBtu and
20 Panhandle reaching \$210/MMBtu. Additionally, pipelines and natural gas suppliers were
21 alerting customers like EMW that fuel supply was limited and gas supply may be curtailed.
22 Gas index prices increased dramatically on February 11-12 and continued in subsequent
23 days which resulted in Evergy switching all dual-fuel units from gas to fuel oil until the

Operational Flow Orders (“OFOs”) issued by the natural gas pipelines ended. Table 2 below reflects this daily volatility during the storm.

Table 2



Source: State of the Market Winter 2021 Report at 63, SPP Market Monitoring Unit (Apr. 6, 2021).

Q: Did the Company make any adjustments to its fuel procurement activities based on changing conditions as Winter Storm Uri was developing?

A. Yes. Although fuel oil procurement was active leading up to February 2021, purchasing efforts ramped up significantly in early to mid-February. Additional fuel oil supplies were ordered into EMW stations using existing vendors. Once the extreme weather materialized, existing vendors were stretched very thin given the high demand, so EMW contracted with new suppliers throughout Winter Storm Uri to obtain additional deliveries to the stations. When the natural gas pipelines issued operational flow orders (“OFO”), that restricted the operations of EMW’s gas-fired units because they required gas nominations to match actual burns at a ratable level. Under normal operations, if a user like EMW had purchased excess gas that was not burned, it could burn the gas at another time during the current month. That was not possible during Winter Storm Uri. Evergy was unable to utilize any imbalance natural gas and had to procure additional flowing gas.

1 **Q: When did EMW first become aware of the weather conditions that led to Winter**
2 **Storm Uri and what steps did it take to prepare for the storm ahead of SPP declaring**
3 **Conservative Operations?**

4 A: During the first week of February 2021, the long-term weather forecast predicted that a
5 sustained period of cold weather would affect the Company's service territory. On
6 February 3 Evergy personnel analyzed the potential impacts of the forecast, as well as
7 Evergy's Generation Winter Operations policy regarding the conditions that require
8 placing all coal units in a "self-commit" status in SPP's IM. This action is taken to ensure
9 that coal units are not removed or "de-committed" from the markets during a period of cold
10 weather and that they can continue to operate and generate power. Keeping coal units
11 operating protects their components from freezing when they are cycled down or off,
12 reducing the risk of a failed start-up, and promotes reliability. During the remainder of that
13 week, Evergy's generating facilities reviewed and completed tasks associated with winter
14 preparedness which included ensuring an adequate supply of propane bottles and
15 temporary heating supplies, staging temporary heaters in areas where problems could arise,
16 reviewing and addressing the maintenance backlog for work needed on freeze protection
17 equipment, checking heat trace panels for circuits not operating normally, ensuring all
18 doors were closed and secured and implemented extra vigilance during operator rounds to
19 ensure water and steam circuits were staying warm.

20 Given the forecast of prolonged cold weather, Evergy advised the Burlington
21 Northern Santa Fe Railway (BNSF) and Union Pacific Railroad (UP), who serve EMW
22 coal plants of the expected need for fresh coal and discussed service issues and risks.

1 Evergy also conferred with EMW's fuel oil suppliers, placing orders for additional oil
2 deliveries.

3 **IV. EVERGY MISSOURI WEST OPERATIONS DURING WINTER STORM URI**

4 **Q: What actions did the Company take to ensure that adequate generating capacity**
5 **would be available to respond to customer demand during Winter Storm Uri?**

6 A: When temperatures are forecasted to reach a low temperature of less than 15°F or a high
7 temperature below 32°F for three consecutive days, the self-commit strategy discussed
8 above is implemented for all coal units under Evergy's Generation Winter Operations
9 policy.

10 Prior to Winter Storm Uri, 87 percent of Evergy Missouri West's dispatchable
11 generation was available, with the remaining 13 percent unavailable due to work associated
12 with planned outages. The majority of this 13 percent related to the SPP approved outages
13 at Greenwood Units 3 & 4 (116.5 MW) for controls upgrades and Jeffrey Energy Center
14 Unit 1 (58 MW) to make plant modifications for a new bottom ash system installation to
15 comply with the EPA's Coal Combustion Residual requirements. Evergy placed its coal
16 units in self-commit status with the SPP markets on February 5-6, as noted above.

17 **Q: How did Evergy's fuel mix contribute to or mitigate the impacts from the weather**
18 **and fuel supply challenges?**

19 A: Diversity of generation played an important role during Winter Storm Uri as EMW units
20 that had fuel supply on site (coal, and fuel oil) performed very well. This was crucial given
21 the issues experienced with the natural gas producers, suppliers, and pipelines. Evergy
22 Missouri West's coal units and oil-fired/CT units store fuel onsite so it can be accessed
23 during times of fuel supply disruption. These units are:

- 1 • Iatan Station (Coal, along with oil for startup or supplemental firing of ignitors)
- 2 • Jeffrey Energy Center (Coal, along with oil for startup or possible supplemental
- 3 firing of ignitors)
- 4 • Greenwood Station (Dual fuel natural gas/oil-fired CTs)
- 5 • Lake Road Station (Coal for boiler 5, dual fuel natural gas/oil-fired and oil-only
- 6 boilers/CTs)
- 7 • Nevada (Oil-fired CT)

8 **Q: How did the Company's generating units perform during Winter Storm Uri?**

9 A: The fossil fuel units operated well throughout Winter Storm Uri, providing power to
10 EMW's load. The stations with units that were not in planned outages performed very well
11 during the storm, given the extreme operating conditions. None of these units tripped off-
12 line or became unavailable. The operating issues experienced by EMW were limited to
13 inlet filter icing at Lake Road Unit 5, an air leak at Greenwood Unit 3, and ice buildup at
14 the cooling towers of Jeffrey Energy Center Units 2 and 3. None of the generating unit
15 outages cited on pages 169-71 in the FERC/NERC February 2021 Cold Weather Outage
16 Report (November 2021) were Evergy units.

17 Even if natural gas had been readily available at the prevailing prices during the
18 storm, gas-fired generation would not have provided mitigating price protection for EMW
19 because of the high cost of the fuel.

20 Additionally, company owned and PPA generation revenue was critical in
21 mitigated some exposure to elevated wholesale market prices in SPP. Without reliable
22 generation producing electricity to sell into the wholesale market, there would be no fuel
23 cost backstop for the demand (load) bid volume from a market settlement perspective.

1 When wholesale market prices are above the incremental cost of utility-owned and PPA
2 generation, the Company and its customers benefit when that power is sold into the market.

3 **Q. How did the Company's generating facilities perform compared to the average of SPP**
4 **market participants during February 15-16, 2021 when Winter Storm Uri was at its**
5 **height?**

6 A. According to SPP's "A Comprehensive Review of Southwest Power Pool's
7 Response to the February 2021 Winter Storm" (July 19, 2021) at page 48, during February
8 15-16 the total amount of generation available was approximately 42% of nameplate
9 capacity on average. Over the same period EMW's generation fleet average availability
10 was 50% of capacity, outperforming the SPP average. Of the EMW unavailable capacity
11 during that time, approximately 90% was due to natural gas curtailments with the
12 remaining unavailability being caused by the approved Jeffrey 1 planned outage.

13 **Q: What actions did Evergy Missouri West take during Winter Storm Uri to provide and**
14 **maintain safe and reliable operations to deliver electricity to its customers?**

15 A: On February 8, 2021 SPP issued a Resource Alert to its members like EMW which was
16 followed by a Conservative Operations notice on February 9. The Market Operations
17 Group continued to forward the SPP notices to Evergy's generating plants to ensure they
18 communicated with SPP if any issues arose regarding their capability.

19 On February 9 SPP declared conservative operations resulting in the cancellation
20 of all planned transmission outages with a scheduled start date between February 9 through
21 February 18. Evergy made several adjustments to allow for more power flow across the
22 transmission system or to lift generator derates. This was accomplished by reconfiguring
23 the system to respond to the emergency conditions or utilizing winter ratings. All changes

1 were communicated or confirmed to SPP’s Reliability Coordinator. In addition to the
2 preparatory measures already taken, Evergy’s operations and support functions increased
3 staffing levels in anticipation of extra workload and to ensure heightened levels of activity
4 could be achieved and supported. On February 12 Evergy staffed the Topeka Control
5 Center to ensure that two transmission system operators (TSOs) were on duty at all times.
6 On February 14 Evergy similarly staffed the Kansas City Control Center with a minimum
7 of two TSOs on duty at all times to prepare for emergency conditions. The Substation
8 Department put personnel on standby from February 13 to February 17, and scheduled
9 additional employees for the afternoon shift and overnight to ensure effective emergency
10 management during Winter Storm Uri. This was done in both urban and rural areas of
11 Evergy’s service territories.

12 **Q: How did EMW coordinate with SPP to maintain reliable operations after SPP**
13 **declared conservative operations on February 9, 2021?**

14 A: SPP and Evergy utilized phone service, the CROW outage management tool, the Ratings
15 Submission tool, and SPP’s R-Comm system during Winter Storm Uri. CROW is an
16 enterprise-class software system that is widely used to manage outage coordination,
17 scheduling, logging, switching, reliability analysis, and work safety. It is used by electric
18 utilities throughout the country, as well as by RTOs like SPP and the Midcontinent
19 Independent System Operator (“MISO”). The R-Comm tool is a reliability communication
20 system used by SPP. These tools and systems are used to communicate both generation
21 and transmission outages and derates, facility rating updates, Energy Emergency Alerts
22 (“EEAs”), and operating instructions. Through the use of these tools, SPP and Evergy
23 were able to efficiently coordinate and communicate during Winter Storm Uri.

1 **Q: What steps did Evergy Missouri West take to advise customers about how they should**
2 **prepare and respond to Winter Storm Uri and how the Company would communicate**
3 **with them?**

4 A: On February 14, 2021 at 19:05 CST, at the direction of Southwest Power Pool (Evergy's
5 Reliability Coordinator), Evergy issued a public appeal asking customers to reduce their
6 electricity use as much as possible through February 17. This request occurred as extremely
7 cold weather is driving high electricity use throughout the Midwest that could limit
8 electricity supply available for customers. SPP declared this EEA level as the Reliability
9 Coordinator of the SPP region, pursuant to NERC Reliability Standards.³ Evergy advised
10 that the extended cold weather was creating high demand for electricity, as well as natural
11 gas, which strained the gas supply available to generate electricity.

12 Leading up to and throughout Winter Storm Uri, Evergy maintained
13 communications with customers, employees and governmental officials regarding SPP
14 updates, outages, and projected outage durations. Evergy utilized different media to inform
15 the public of the ongoing Winter Storm Uri including news releases, emails, Facebook,
16 Twitter, and the Evergy website.

17 Evergy emailed all customers regarding the possibility of an outage on
18 February 15, 16 and 18. Evergy continually updated the Outage News page on its website
19 to include information about the current status of the SPP load-shedding orders, as well as
20 directions on where to report an outage and ways to conserve electricity.

³ A description of the levels of alerts and Energy Emergencies is contained in Appendix K of the FERC-NERC report, "The February 2021 Cold Weather Outages in Texas and the South Central United States" published in November 2021, available at www.ferc.gov/media/february-2021-cold-weather-outages.

1 **Q: Were there any events outside of Evergy Missouri West's control that impacted its**
2 **units that were otherwise capable of delivering power during Winter Storm Uri?**

3 A: Yes. Early on the morning of February 16, SPP sent Out of Merit Energy ("OOME")
4 Instructions to Iatan 1 and Iatan 2 that directed both units to produce less energy than they
5 were capable of generating between the hours of 2 a.m. and 8 a.m. because of constraints
6 on SPP's transmission system. In total, there were 55 five-minute intervals when these
7 instructions occurred. Evergy Missouri West's share of these OOME Instructions was a
8 total of 162 MWh. As discussed in Mr. Ives' direct testimony, SPP also directed the
9 Company to shed load from 6 a.m. to 8 a.m. on February 16, as well.

10 **Q: How did Evergy mitigate gas restrictions during Winter Storm Uri?**

11 A: Evergy's approach to procuring natural gas has remained consistent since the beginning of
12 the SPP Integrated Market. Evergy estimates natural gas needs for the next operating day
13 based on Evergy's analysis of SPP generation needs. This is achieved by utilizing load,
14 weather, and wind forecasts in addition to other available information like planned outages.
15 The anticipated natural gas need is procured and then balanced to the amount burned based
16 on the commitment and dispatch that is awarded by SPP. This approach makes up any
17 shortfall on the pipeline by purchasing more gas for the next gas day or to manage length
18 on the pipeline by purchasing less gas for the next gas day. Any commitments by SPP of
19 resources in the day-ahead reliability unit commitment process and/or the intra-day
20 reliability unit commitment process may require a same day gas purchase or may be added
21 to the imbalance number on the subsequent day. This practice was employed during Winter
22 Storm Uri. However, the limitations of both the natural gas supply and OFO restrictions

1 of the pipelines made it difficult to achieve results similar to those under normal market
2 conditions.

3 On February 5 Evergy reviewed plant operations with natural gas restrictions and
4 fuel oil operations of dual-fuel units. As Winter Storm Uri impacted the gas pipelines and
5 SPP, Evergy procured fuel oil to burn at its dual-fuel units. Starting on February 3 and
6 continuing through February 20, natural gas pipelines issued extreme weather alerts and
7 OFOs that restricted the flexibility on the system and with Evergy operations.

8 As gas index prices increased dramatically on February 11-12 and continued in
9 subsequent days, EMW switched all of its dual-fuel units to fuel oil until the OFOs ended.
10 All gas units that did not have firm natural gas transportation on the pipelines were placed
11 in a fuel restriction outage. These units included Ralph Green 3 and South Harper 1. For
12 those units that had firm gas transportation, Evergy offered them into the day-ahead market
13 if natural gas supply was available.

14 **Q: Please describe the Company's post-event review of its operations during Winter**
15 **Storm Uri, including any findings and recommendations that it made.**

16 A: Immediately following the conclusion of Winter Storm Uri, Evergy initiated an internal
17 event analysis process across all business units impacted by the event in order to identify
18 and document areas of improvement, good performance, and lessons learned. Through this
19 analysis, several recommendations for improved resiliency were cited, including:

- 20 - Amend the Evergy storm response process documents to include a process for
21 establishing pre-event communications and planning with key business units;
- 22 - Conduct annual reviews and perform periodic drills of Evergy's Load Shed Plan;
- 23 - Shorten restoration intervals to minimize customer impact and reliability risk;

- 1 - Increase server capacity and expand the operational flexibility of Evergy's website;
- 2 - Review emergency power plans at internet provider locations and evaluate options
- 3 to increase internet connectivity and resiliency;
- 4 - Improve emergency planning and response coordination; and
- 5 - Evaluate fuel supply adequacy and storage options.

6 Throughout their winter preparedness activities and real-time operating actions
7 during Winter Storm Uri, Evergy personnel worked diligently to keep generation resources
8 online and the transmission system intact, and to safely restore power following both
9 rotating and unplanned outages. Evergy maintained system frequency and voltage levels,
10 and prevented cascading outages from occurring as a result of the storm. Evergy Missouri
11 West operated in a manner that maintained safety and reliability, while mitigating the
12 financial risk to customers, as well as to the Company.

13 **V. THE COSTS INCURRED BY EVERGY MISSOURI WEST AS A RESULT OF**
14 **WINTER STORM URI WERE PRUDENT AND REASONABLE UNDER THE**
15 **CIRCUMSTANCES OF THIS ANOMALOUS WEATHER EVENT**

16 **Q: What costs did EMW incur during Winter Storm Uri in order to maintain safe and**
17 **reliable operations?**

18 A: As discussed in the direct testimony of Mr. Klote and detailed on Schedule RAK-1 of his
19 testimony, EMW incurred costs of approximately \$11.8 million in fuel costs and \$314.6
20 million in purchased power costs through December 2021. In addition, these costs were
21 offset by approximately \$12.4 million in off-system sales that occurred during February
22 2021.

23 **Q: How did the cost of these items compare with EMW's costs in previous winters?**

24 A: When looking at a three-year average of costs incurred in the month of February in 2018,
25 2019 and 2020 which were more typical winter conditions, EMW's fuel costs were \$8.3

1 million higher and purchased power costs were \$299.8 million higher than more typical
2 conditions. In addition, off-system sales were \$11.7 million higher during the winter event
3 than the average of the three previous February sales. These amounts are detailed in
4 Schedule RAK-1 in the testimony of Mr. Klote.

5 **Q: What actions did EMW take after Winter Storm Uri to control or otherwise mitigate**
6 **these price increases?**

7 A: Following the event Evergy has reviewed and put in place many things to improve
8 resiliency should another event of this type occur in the future. This includes increasing
9 the amount of fuel oil we have on site and in storage. Evergy is currently conducting a fuel
10 strategy study that could result in changes in the near term and the long term. With a
11 changing energy mix in our region and the volatility regarding the supply and cost of
12 natural gas, procurement practices and the management of intermittent resources are being
13 reviewed.

14 **Q: Was Evergy Missouri West's conduct before, during and after Winter Storm Uri**
15 **consistent with recognized electric utility standards and good utility practices?**

16 A: Yes. Based upon my experience of nearly thirty years in the electric utility industry, the
17 Company's conduct during this period met or exceeded recognized electric utility
18 standards, as well as good utility practices. EMW's units generating units performed very
19 well during Winter Storm Uri, given the extreme conditions. The Company had sufficient
20 fuel oil that enabled it to operate dual-fuel units through the storm, as natural gas supplies
21 were interrupted. No units tripped off-line during Winter Storm Uri, despite the extreme
22 circumstances that existed.

1 **Q: Were these costs prudently and reasonably incurred?**

2 A: Yes, they were. While the prices charged and the costs incurred were extraordinarily high,
3 they reflected the extraordinary and anomalous nature of Winter Storm Uri and the extreme
4 effect that the storm had on the Company and its customers, as well as the central United
5 States, from the Dakotas to the Gulf Coast. Given these unusual circumstances, the costs
6 that Evergy Missouri West incurred during Winter Storm Uri in the SPP energy markets,
7 in the procurement of fuel, and in non-fuel O&M matters described by Mr. Klote in Section
8 II of his direct testimony, were prudently and reasonably incurred, and allowed the
9 Company to provide customers with the power they needed under extreme circumstances.

10 **Q: Does this conclude your testimony?**

11 A: Yes.

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

In the Matter of the Application of Evergy)
Missouri West, Inc. d/b/a Evergy Missouri)
West for a Financing Order Authorizing the) Case No. EF-2022-0155
Financing of Extraordinary Storm Costs)
Through an Issuance of Securitized Utility)
Tariff Bonds.)

AFFIDAVIT OF JOHN BRIDSON

STATE OF MISSOURI)
) ss
COUNTY OF JACKSON)

John Bridson, being first duly sworn on his oath, states:

1. My name is John Bridson and I am employed by Evergy Metro, Inc. as Vice President Generation – Generation Operations Management.

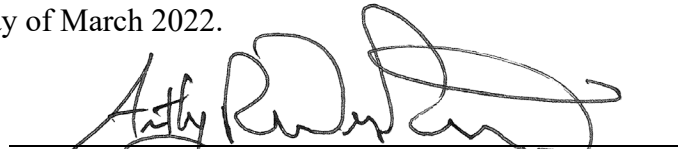
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Evergy Missouri West consisting of twenty-five (25) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

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.



John Bridson

Subscribed and sworn before me this 11th day of March 2022.



Notary Public

My commission expires: 4/26/2025

