**Exhibit No.:** _______________
**Issue(s):** MBDR & Demand Response Program Changes/Residential Battery Energy Storage Pilot Programs (RBES)/ Low Income Solar Subscription (LI SSP)
**Witness/Type of Exhibit**: Seaver/Direct
**Sponsoring Party**: Public Counsel
**Case No**.: ER-2022-0129 and ER-2022-0130

# DIRECT TESTIMONY

# OF

# JORDAN SEAVER

Submitted on Behalf of the Office of the Public Counsel

## EVERGY METRO, INC. D/B/A EVERGY MISSOURI METRO
## AND
## EVERGY MISSOURI WEST, INC. D/B/A EVERGY MISSOURI WEST

CASE NOS. ER-2022-0129 AND ER-2022-0130

** **
Denotes Confidential information that has been redacted

June 8, 2022

# PUBLIC

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

| | | |
|---|---|---|
| In the Matter of Evergy Metro, Inc. d/b/a Evergy Missouri Metro's Request for Authority to Implement a General Rate Increase for Electric Service | ) ) ) ) | Case No. ER-2022-0129 |
| 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-2022-0130 |

**AFFIDAVIT OF JORDAN SEAVER**

**STATE OF MISSOURI )**
**) ss**
**COUNTY OF COLE )**

Jordan Seaver, of lawful age and being first duly sworn, deposes and states:

1. My name is Jordan Seaver. I am a Policy Analyst for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my direct testimony.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

Jordan Seaver
Policy Analyst

Subscribed and sworn to me this 8th day of June 2022.

Tiffany Hildebrand
Notary Public

My Commission expires August 8, 2023.

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**DIRECT TESTIMONY**

**OF**

**JORDAN SEAVER**

**EVERGY MISSOURI METRO d/b/a EVERGY MISSOURI METRO & EVERGY MISSOURI WEST d/b/a EVERGY MISSOURI WEST**

**CASE Nos. ER-2022-0129 & ER-2022-0130**

## I. INTRODUCTION

**Q. What is your name and what is your business address?**

A. My name is Jordan Seaver, and my business address is 200 Madison Street, Governor Office Building, Suite 650, Jefferson City, MO 65102

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

A. I am employed by the Office of Public Counsel ("OPC") as a Policy Analyst.

**Q. Have you previously testified before the Missouri Public Service Commission?**

A. No. I have submitted pre-filed testimony, but I have not been called to testify before the Commission.

**Q. What are your work and educational background?**

A. I previously worked as a Legal Assistant for Cascino Vaughan Law Offices for 7 years. I have been employed as Policy Analyst by OPC since January 2022. I have a Master of Arts in Philosophy from the University of Wyoming, and a Bachelor of Arts in Philosophy from the University of Illinois at Chicago. I have attended Michigan State University's Institute of Public Utilities ("IPU") Accounting and Ratemaking Course, as well as the National Association of Regulatory Utility Commissioners ("NARUC") Rate School in 2022.

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

A. The purpose of this testimony is the following:

- To recommend that the Commission discontinue the Market Based Demand Response program ("MBDR"), which further includes:
    1. Amending Demand Response and general tariff sheets consistent with discontinuance of MBDR

2. Recommending the Commission lift the ban on Aggregators of Retail Customers ("ARCs") in Missouri

- To recommend that the Commission order Evergy Missouri Metro and Evergy Missouri West to conduct a meta-study or literature review of all known Behind the Meter ("BTM") storage studies and projects in lieu of the Residential Battery Energy Storage ("RBES") pilot program
- To recommend that the Commission order a hold-harmless provision for the Low-Income Solar Subscription Pilot ("Schedule LI SSP") program in the form of a shareholder cost-sharing component for the unsubscribed solar blocks

## II. MBDR AND DEMAND RESPONSE PROGRAM CHANGES

**Q. What recommendation are you proposing for the Schedule MBDR tariff sheets?**

A. I am proposing that the Commission order the Schedule MBDR[1] to be discontinued and corresponding tariff sheets removed. Since its implementation in the Company's 2018 general rate case (viz., ER-2018-0145), this program has had no participants. In addition to this, and for the sake of consistency across all relevant programs concerning load curtailment, I propose:

(*i*) that the Commission revisit the docket for EW-2021-0267 and consider lifting the ban on aggregators of load curtailment for retail customers, and potentially aggregators of load curtailment for residential customers;

(*ii*) that the Emergency Conservation Plan tariff sheets[2] be amended to include demand response in load curtailment events during emergency conditions;

(*iii*) that the Voluntary Load Reduction Rider ("Schedule VLR") tariff sheets[3], the Business Demand Response ("BDR") tariff sheets[4], and Business Thermostat tariff

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[1] Evergy Missouri Metro P.S.C. MO. No. 7, Revised Sheet Nos. 26-26C; and Evergy Missouri West P.S.C. MO. No. 1, Original Sheet Nos. 156-156.3.
[2] Evergy Missouri Metro P.S.C. MO. No. 2, §17, Original Sheet Nos. 1.59-1.63.
[3] P.S.C. MO. No. 7, Sheet Nos. 27-27C.
[4] Evergy Missouri Metro P.S.C. MO. No. 2, Revised Sheet No. 1.81, and Evergy Missouri West P.S.C. MO. No. 1, 4th Revised Sheet No. R-63.09.

sheets[5] be amended to include potential load curtailment events outside the specified period of May1-September 30; and

(*iv*) that mention of Schedule MBDR be removed from all tariff sheets Evergy Missouri Metro P.S.C. MO. No. 2, Original Sheet No. 1.82A, Evergy Missouri Metro P.S.C. MO. No. 7, 16th Revised Sheet Nos. TOC-1 and TOC-2 and Evergy Missouri West P.S.C. MO. No. 1, Original Sheet Nos. 1.1, 2.1, R-63.10.1.

**Q. What is the MBDR program?**

A. The MBDR program allows participating commercial and industrial customers to reduce their load during times when energy prices on the Southwest Power Pool ("SPP") are high or during declared emergency events. These load curtailments can reduce electric costs for the participating customers and lower peak demand.

**Q. What benefit would discontinuing the Schedule MBDR have?**

A. Since its implementation after the Company's 2018 general rate case (ER-2018-0145) this program has had no participants. Tariff P.S.C. MO. No. 2, tariff sheets 1.59-1.63 states the rules and regulations for curtailment, interruption, or suspension of service during an emergency event when there is a lack of generating capacity or fuel therefor. Curtailment events for energy conservation during emergency conditions are regulated by these tariff sheets. The purpose of the Schedule MBDR is to offer "qualified business demand response…participants an additional opportunity to reduce their electric costs through participation with KCP&L in the wholesale Southwest Power Pool (SPP) energy market by providing load reduction during high price periods in the market and declared emergency events." Providing load reduction during declared emergency events for all customers is already provided by P.S.C. MO. No. 2, tariff sheets 1.59-1.63, so the Schedule MBDR is superfluous in this respect. The other facet—viz., participation in the SPP—of the program can be handled by the Commission lifting the ban on free-market aggregators operating in Missouri. Given that there have been no participants of this program since its implementation,

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[5] Evergy Missouri Metro P.S.C. MO. No. 2, Original Sheet No. 1.83A, and Evergy Missouri West P.S.C. MO. No. 1, 3rd Revised Sheet No. R63.08.

this second facet will be satisfied by allowing load curtailment aggregators to operate unregulated in Missouri.

**Q. Why are you proposing that the Schedule MBDR be discontinued?**

A. Because there have been no participants to the Schedule MBDR, it has not shown itself to be an effective way to achieve its stated aims. Those aims can be achieved by less regulation and free-market competition by allowing aggregators to operate in Missouri. Because of increased fuel prices[6] and the ongoing retiring of many coal-fired generating stations in Missouri, there is a need for demand response load curtailment and the more efficient and effective that is, the better for customers in the Company's service territory.

**Q. Why are you proposing that the Emergency Conservation Plan and Schedule VLR program be amended?**

A. If the Commission lifts the ban on Aggregators of Retail Customers in Missouri and orders the Schedule MBDR to be discontinued, then the Company will need to amend these programs in order to have consistent load curtailment during emergency conditions. I am proposing that the Emergency Conservation Plan be amended to allow the Company to call demand response events under emergency conditions. I am also proposing that Schedule VLR be amended to allow the Company to implement load curtailments on customers during months outside of the prescribed summer period.

**Q. Do you have any other concerns with the programs or tariff sheets mentioned previously?**

A. No.

[6] The benchmark for the U.S. oil market—West Texas Intermediate crude oil—is up 50% more this year than last, and an OPEC agreement to increase oil output has not halted the surge in prices: Jacob Sonenshine, "Oil Prices Have Surged. People Just Keep Betting They Will Go Higher," *Barron's*, June 2, 2022, https://www.barrons.com/articles/oil-prices-buying-fund-inflows-51654195486. Coal futures for northwestern Europe have gone up by 137% this year, cash prices in Central Appalachia are double what they were last year, and this trend holds elsewhere in the world, too. At the same time, the stockpile of coal at U.S. power plants is low and utilities are having trouble restocking: Ryan Dezember, "Red-Hot Coal Prices Threaten Even Higher Power Bills," *The Wall Street Journal*, June 2, 2022, https://www.wsj.com/articles/red-hot-coal-prices-threaten-more-increases-in-power-bills-11654167025.

## III. RESIDENTIAL BATTERY ENERGY STORAGE PILOT PROGRAM ("RBES")

**Q. What is the RBES and what is its purpose?**

A. The RBES is a proposed pilot in this rate case[7] that the Company will conduct if approved by the Commission. The Company claims that it would allow participating residential customers to install behind the meter ("BTM") storage systems—or batteries—in their homes. The batteries would be utilized by the participating customers as energy storage, and by the Company to call events for peak-shaving during peak hours and to generally save customers money. In addition to the Company's claim that the program would save customers money, the Company claims that the participating customers would retain power during a power outage or blackout. The pilot program would run from the time of Commission approval until the end of 2025. The Company would rate base the batteries, with three options at the conclusion of the pilot program: the batteries can be removed, ownership transferred to the customer with Company access privileges, or ownership transferred with no Company access privileges.

The RBES program has a very low customer cap (50 BTM systems), but incurs a relatively high cost to ratepayers (estimated to be $2.4M). The data collection period of roughly 2 years for the project does not allow the Company to conclude whether the BTM systems had energy savings impacts for customers generally. The Company could also not show cost savings, because the cost of the pilot would not be made up in the two year period. Furthermore, I constructed and ran a simulation on the System Advisor Model (SAM) software from the National Renewable Energy Laboratory (NREL) with parameters set as close as possible to those of the pilot, including no solar PV generation, and taking into account one battery only[8]. The simulation showed a negative cash flow annually over a 20 year period, and negative earnings before interest, taxes, depreciation, and amortization annually over a 20 year period. Moreover, there is an issue with the eligibility priorities of customers to participate in this program. No formal eligibility requirements have been made, but priority will be given to customers with some form of distributed energy resource, e.g.

[7] Kimberly Winslow, Direct Testimony, ER-2022-0130, pp. 41-47.

[8] The results would only need to be multiplied by the total number of batteries (50) to get the corresponding results for the whole program. Multiplication would not change the resulting financial data to a positive number. See Schedules JS-D-1, JS-D-2, JS-D-3.

rooftop solar PV, smart thermostat, electric vehicle, etc. **________________________________ ** There is the potential for the participating customers to be all Company employees or board members. For all of these reasons, the pilot program has no tangible benefits to customers and is costly without any apparent cost- or energy-savings.

**Q. Are there any other studies or programs that show benefits of BTM storage systems deployed to customers?**

A. The Company has also shared in response to data requests a list of completed and ongoing pilots and studies of the very same kind as the one proposed in the RBES[10]. Whether or not any of these studies are applicable to the Company's service territory and customers and can be replicated, there is no reason to conduct this pilot program in the face of so much data on the topic. **________________________________ ** Purchasing and installing new BTM systems is superfluous if the goal of the pilot program is to determine the demand and cost savings of calling events on said BTM systems.

**Q. What should replace the RBES pilot program?**

A. I recommend that the Commission order the Company to conduct an in-house meta-analysis or literature review of the completed and ongoing studies and pilots and use the findings of said meta-analysis to determine whether a future BTM storage program would be beneficial and feasible for the Company's service territory.

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[9] See Schedule JS-D-4-CONF.
[10] See Schedule JS-D-5-CONF.
[11] See Schedule JS-D-6-CONF.

## IV. LOW INCOME SOLAR SUBSCRIPTION PILOT ("SCHEDULE LI SSP") SHAREHOLDER COST SHARING COMPONENT

**Q. What is the Schedule LI SSP?**

A. Similar to the currently active Schedule SSP[12], Schedule LI SSP is a solar subscription program for low-income customers. The Company has proposed 1 MWac[13] of solar PV array to provide subscription blocks for any participating low-income customers. These customers subscribe for a block of the solar PV array, pay an additional rate, and then are either credited or billed for the resulting difference between the renewable energy credits (RECs) and the price of energy on the SPP market, which is where the energy generated by the solar PV array will be sold.

**Q. What do you mean by Shareholder Cost Sharing Component?**

A. In the currently active Schedule SSP, there is a requirement that shareholders cover the cost of a portion of the unsubscribed solar blocks. Shareholders cover 75% of the cost of the unsubscribed solar blocks.

**Q. How does the cost sharing mechanism for Schedule SSP relate to the LI SSP?**

A. The Company has not proposed a cost-sharing mechanism similar to that in Schedule SSP for the LI SSP pilot. I am proposing that the Commission order a cost-sharing mechanism for the unsubscribed blocks in the LI SSP pilot with a 90-10 split for shareholders and participating customers, respectively.

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

A. Yes.

[12] P.S.C. MO. No. 7, Revised Sheet Nos. 39-39E.

[13] This unit refers to the resulting power measurement after conversion from the dc solar PV to ac by means of a converter.