Exhibit No.: Issue: SSP Witness: Kevin Brannan Type of Exhibit: Direct Testimony Sponsoring Party:Evergy Missouri Metro and Evergy Missouri West Case No.: ET-2024-0182 Date Prepared: February 20, 2024

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ET-2024-0182

DIRECT TESTIMONY

OF

KEVIN BRANNAN

ON BEHALF OF

EVERGY MISSOURI METRO and EVERGY MISSOURI WEST

Kansas City, Missouri February 2024

DIRECT TESTIMONY

OF

KEVIN BRANNAN

ET 2024 0102 ът

Case No. E1-2024-0182		
1	I.INTRODUCTION	
2		
3	Q: Please state your name and business address.	
4	A: My name is Kevin Brannan. My business address is 1200 Main Street, Kansas City, Missouri	
5	64105.	
6	Q: By whom and in what capacity are you employed?	
7	A: I am employed by Evergy as Senior Manager of Distributed Energy Resources ("DER")	
8	Products and Services.	
9	Q: On whose behalf are you testifying?	
10	A: I am testifying on behalf of Evergy Metro, Inc. d/b/a Evergy Missouri Metro ("Evergy Missouri	
11	Metro") and Evergy Missouri West, Inc. d/b/a Evergy Missouri West ("Evergy Missouri West")	
12	(collectively, the "Company" or "Evergy") in support of the solar subscription program and tariff	
13	modifications.	
14	Q: What are your responsibilities?	

15 A: My responsibilities with the Company include the planning, implementation, and program 16 execution of Evergy's DER programs. In Missouri, my team manages the interconnection process and customer programs that include residential and business demand response, battery storage 17

pilot, solar subscription rider program, income-eligible solar subscription rider, and direct
renewables. My team also is responsible for the strategy and operation of Evergy's distributed
energy resource management system. My team is part of Evergy's Energy Solutions, which is a
part of the Customer and Community Solutions Division led by Charles Caisley, Senior Vice
President of Marketing and Public Affairs, and Chief Customer Officer.

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

A: I graduated from Webster University in 2005 with a B.S. in Business Management and an MBA
in 2007. I began my career with Evergy in June 2006 as a Business Representative. In this role I
supported the account management needs of our Tier 2 Business Customers. In 2010, I joined our
products team as a Product Manager. Over the next eight years I managed several of our residential,
behavioral, commercial, and industrial demand-side management programs. In 2018, I was
promoted to Manager of our Energy Efficiency products team. In 2020, I was promoted to Manager
of our DER team and my current role is Senior Manager of this team.

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

A: Yes, I have testified before the Missouri Public Service Commission ("MPSC") before.
Specifically, I provided testimony in Case No. EA-2022-0043 where Evergy sought approval for
a Certificate of Convenience and Necessity ("CCN") for the 5 MW portion of the Hawthorn solar
project that would be utilized to serve the needs of customers under the Solar Subscription Pilot
Rider Schedule ("SSP"). My testimony addressed the steps taken by Evergy to comply with
Schedule SSP and the benefits of the project. Evergy successfully completed construction of the
Hawthorn solar array in December 2022, and it was determined to be in service on May 29, 2023.

In Case No. ER-2022-0129/0130, the Commission approved Evergy's proposal to transition the
 SSR program from a pilot to a permanent program, and the tariff was renamed to Solar
 Subscription Rider ("SSP").

4 Q: What is the purpose of your testimony in this case?

A: The purpose of my testimony is to outline the proposed changes to the Solar Block Cost
component of the SSP tariff. I detail the Hawthorn solar resource built to serve the SSP program
and discuss the proposed modification to the SSP tariff to update the Solar Block Cost associated
with final engineering, procurement, and construction ("EPC") and ongoing operation and
maintenance ("O&M") costs of the Hawthorn solar array. My testimony addresses why this
proposed Solar Block Cost increase is appropriate.

11

I. SOLAR BLOCK COST

12 Q: Please describe the solar resource used to serve the SSP Program.

A: Evergy sought approval of the site to host its first Solar Subscription facility at its existing
Hawthorn Generating Station, which is in the Missouri Metro service territory. Evergy selected its
Hawthorn facility as the point of interconnection due to the existing infrastructure that could be
utilized. This reduced the total cost of the project by eliminating the need to procure a large
specialty transformer.

18 Construction of the Hawthorn Solar Facility to support the SSP program was completed in 19 December 2022, and it was determined to be in service as of May 29, 2023. As of December 31, 2023, the SSP program enrollment for the Missouri resource allotted capacity is at 100 percent of 21 resource capacities. Evergy is maintaining a waitlist that currently consists of 68 customers or 534 22 shares in Missouri Metro and 94 customers or 562 shares in Missouri West.

Q. Given the completion of the Hawthorn solar array that supports the SSP tariff, whatchanges is Evergy recommending to the Solar Subscription Charge?

A. The Solar Block Subscription Charge is made of two costs: the Solar Block Cost and the
Services and Access charge. Evergy is proposing changes to the Solar Block Cost and is not
recommending any changes to the Services and Access charge. Company witness Bradley Lutz
will address the Services and Access charge of the Solar Block Subscription Charge. Evergy
requests to increase the Solar Block Cost from \$0.0884 to \$0.09131 per kWh to reflect the final,
actual construction costs of the Hawthorn solar array.

9 Q. Please describe the Solar Block Cost component of the Solar Block Subscription Charge.

10 A. The Solar Block Cost is a per kWh charge based on the levelized cost of energy ("LCOE") and 11 is designed to recover the total cost of the solar resource(s) built to serve the program. The 12 levelized costs from the Hawthorn solar facility were determined by calculating the final solar 13 array financials including capital investment, operations and maintenance, insurance, property tax 14 and program administration and divided by the levelized resource energy output (MWh).

Participants that subscribe to the program pay for solar blocks of five hundred (500) watts (WAC) each. Each participant subscribes based on the percentage of their estimated annual energy percentage target they elect to reduce from their actual energy generation by an equivalent percentage of the solar generation. Currently this value is between 10 percent and 50 percent of the participant's annual energy consumption.

20 Q. How did the initial SSP tariff determine the Solar Block Subscription Charge until the 21 construction of the Hawthorn solar array was completed and final charges could be 22 developed?

A. The Company developed a revenue requirements model to determine the projected LCOE for
 the SSP tariff, which was based on the engineering estimates conducted in 2018 from Evergy's
 original filing. The estimate was based on the anticipated scope, site selection, capital investment,
 operations and maintenance, insurance, property tax, program administration and technology to
 construct a 5 MWac array. Evergy estimated the Solar Subscription Charge to be \$0.1284 per
 kWh.

Q. What changes were made to Evergy's LCOE model following construction completion of the Hawthorn solar array?

9 A. The Company modified the Solar Block Cost component to increase the Solar Block Cost from
10 \$0.0884 to \$0.09131 per kWh to reflect the final, actual construction costs of the Hawthorn solar
11 array. This \$0.09131 per kWh Solar Block Cost amount incorporates several items raised by
12 Staff in its audit report of the Hawthorn facility in Dockets EO-2023-0423 and EO-2023-0424:

Updated the amount for the Allowance for Funds Used During Construction ("AFUDC"). AFUDC was not included in Evergy's original budget.

Internal labor and overhead costs directly associated with the Hawthorn project for the SSP
 tariff were updated in the original budget as these costs were used as opposed to capital
 loadings assigned to the project.

• Management and overheads associated with the SSP tariff were added to the LCOE model.

- Projections for the Net Capacity Factor ("NCF") were updated.
- The Production Tax Credit ("PTC") that was initially utilized was updated.
- In-service date of May 29, 2023, utilized for modeling the Solar Block Cost.
- I elaborate on each of these changes below.

Q. What changes were made to the Allowance for Funds Used During Construction ("AFUDC") and internal labor, management, and overheads?

A. In its original budget for the project, the Company did not include estimates for AFUDC and
SSP program management and administrative costs, including overheads. In the notice of
settlement filed on March 10, 2023, in the EA-2022-0043 docket, the Company identified the
incurred AFUDC for the project was \$731,770 and the SSP program management costs, including
overheads, was approximately \$114,736.

8 Q. Please describe changes that were made to the Net Capacity Factor ("NCF")?

A. When the Company filed in its original LCOE calculation, the estimated NCF was 23.96 percent
and based on the projected solar energy output from the resource. Consistent with Staff's
recommendation in its audit report, the Company updated the NCF for consistency with the Burns
& McDonnell Capacity Test Report (dated July 17, 2023), which used a degradation factor of 0.45
percent. This results in a NCF of 24.25 percent.

14 Q. What changes were made to the Production Tax Credit ("PTC") and why?

A. In the Company's original filed revenue requirement model dated February 20, 2023, the model
provided an incorrect PTC amount and start date for the credit. The Company revised the PTC
amounts and informed Staff of the change on September 12, 2023. These updated amounts are
reflected in the revised Solar Block Cost.

Q. What impact will the proposed Solar Block Subscription Charge have on programparticipants' bills?

A. Below is a summary of the monthly bill impacts.

	Estimated (Current Rate)	Final (Proposed Rate)
Solar Block Cost - \$/kWh	0.08840	0.09131
Services & Access Charge - \$/kWh	0.04000	0.04000
Solar Block Subscription Charge - \$/kWh	0.12840	0.13131
Average Monthly Subscription - kWh	600	600
Average Monthly Bill for Solar Subscription - \$	\$77.04	\$78.79
Bill Increase per Month (Final Minus Estimated)		\$1.75

2 If the Commission approves the Solar Block Cost component of \$0.09131 per kWh, this 3 will increase the overall Solar Block Subscription charge from the currently approved estimated 4 Solar Block Subscription charge of \$0.1284 per kWh to \$0.13131 per kWh. As a result, the final 5 Solar Block Subscription charge would increase by a fraction of a cent; \$0.00291 per kWh. This 6 is an estimated increase of \$1.75 per month, per participant, or about \$21 per year. Solar Block 7 Cost of \$0.09131 per kWh is well below the maximum rate of \$0.1388 per kWh, which by 8 comparison, would have cost participants \$83 per month versus the \$79 per month for the final 9 Solar Block Cost.

10 Q. Were changes to the initial rates in the SSP tariff ever contemplated that the estimates11 would need to be updated?

A. Yes. It has always been contemplated by the Company that the initial rates would be updated
upon completion of the Hawthorn solar facility. The current filed tariff includes the language, "The
Solar Block Subscription Charge for energy sold through the program is *estimated*¹ to be \$0.1284
per kWh..." Furthermore, in the testimony of Company witness Kimberly Winslow which states:

¹ Emphasis added. Evergy Missouri Metro Solar Subscription Rider No. 7 3rd Revised Sheet No. 39A and Evergy Missouri West Solar Subscription Rider No. 1 1st Revised Sheet No. 109.1. Effective January 9, 2023.

1 2 3 4 5 6	Based on current total projected costs associated with engineering, design, construction, build, interconnection and site prep, the Company estimates and LCOE of 0.1308 per kWh. This consists of a fixed charge of 0.0908 per kWh and a services and access charge of 0.040 per kWh. The Company anticipates firm final pricing next Spring once Procurement and Construction planning activities are complete for the 10 MWac array ²
7	Q. In its June 1, 2023, Motion to Open a New Docket, do you agree with Staff's claim related
8	to the following issue:
9 10 11	The proposed increase to the Solar Block cost is not consistent with the Stipulation and Agreement in EA-2022-0043 at Paragraph 11 that states the Solar Block charge should not exceed the maximum rate of \$0.13880 per kWh ³
12	A. Evergy strongly disagrees with this characterization. There is a significant distinction between
13	the total Solar Block Subscription Charge and the Solar Block cost component of the overall
14	charge. Staff Proposed Condition 15 as modified in Paragraph 11 of the Stipulation and Agreement
15	in EA-2022-0043 states in part:
16	Staff recommends the Commission require that the final solar block cost should
17	not exceed the maximum rate of \$0.13880 per kWh as stated in the SSP
18	tariff ⁴ "
19	The SSP tariffs have been updated several times since these initial tariffs were approved
20	by the Commission and became effective. Previous versions of the SSP tariffs (see EMM
21	example below) in effect clearly state that the \$0.13880 per kWh maximum rate is addressing the
22	Solar Block cost component of the overall charge to customers, not inclusive of the Service and

23 Access Charge component:

² See, Kimberly Winslow Direct Testimony; January 7, 2022; Docket No ER-2022-0129 and ER-2022-0130; p. 39
³ See, Staff Recommendation to Reject Evergy Metro and Evergy Missouri West's Proposed Tariff Sheets to Update the Solar Subscription Rider (Official Case File Memorandum) dated June 1, 2023, pp. 2-3.
⁴ Emphasis added.

1	Pricing:
2	The Solar Block Subscription Charge for energy sold through this Program is
3	estimated to be \$0.15367 per kWh, made up of two costs:
4	1. The Solar Block cost of \$0.11567 per kWh (based on an engineering
5	estimate. Rate will be updated once a project is selected.)(The Solar Block
6	cost will not exceed \$0.13880 per kWh); and
7	2. The Services and Access charge of \$0.038 per kWh. ⁵
8	Q. You mention earlier that Evergy agreed that the Solar Block Cost would not exceed a
9	maximum rate of \$0.13880 per kWh. Do the proposed changes herein adhere to that
10	agreement?
11	A. Yes, they do. Evergy is recommending the Solar Block Cost increase to \$0.09131 per kWh to
12	reflect final construction costs, which is \$0.04749 cents below the \$0.13880 per kWh threshold.
13	II. CONCLUSION
14	Q. What concluding remarks do you have with respect to your testimony?
15	A. The SSP program is a successful customer offer that allows customers to meet their
16	sustainability goals through a local generation resource with a fixed solar block charge delivered
17	on-bill each month for simplicity. The program modifications proposed herein were carefully
18	considered to ensure the pricing reflects the final delivered costs of the Hawthorn solar array.
19	Q. Does this conclude your testimony?

⁵ Kansas City Power and Light Company P.S.C. MO. No. 7 Second Revised Sheet No. 39A. Effective December 6, 2018.

1 A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of Evergy Metro, Inc. d/b/a Evergy Missouri Metro's and Evergy Missouri West, Inc. d/b/a Evergy Missouri West's Solar Subscription Rider Tariff Filings

Case No. ET-2024-0182

AFFIDAVIT OF KEVIN BRANNAN

STATE OF MISSOURI) ss **COUNTY OF JACKSON**

Kevin Brannan, being first duly sworn on his oath, states:

1. My name is Kevin Brannan. I work in Kansas City, Missouri, and I am employed by Evergy Metro, Inc. as Senior Manager Products and Services-ES Renewables.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Evergy Missouri Metro and Evergy Missouri West consisting of 11 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.

Kevin Brannan

Subscribed and sworn before me this 20th day of February 2024

Notary Public

My commission expires: $\frac{4/2u}{2w25}$

OTARY SEAL SOURI **RES APRIL 26, 2025** COMMISSION #17279952