

Exhibit No.: _____
Issue(s): Economic Performance/
Performance-Based Accreditation/
Intermittent Resource Declining Marginal Value/
Curtailments Related to Conservation Concerns
Witness/Type of Exhibit: Seaver/Surrebuttal
Sponsoring Party: Public Counsel
Case No.: EA-2022-0328

SURREBUTTAL TESTIMONY

OF

JORDAN SEAVER

Submitted on Behalf of the Office of the Public Counsel

EVERGY MISSOURI WEST, INC. D/B/A
EVERGY MISSOURI WEST

CASE NO. EA-2022-0328

January 31, 2023

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1 **I. INTRODUCTION**

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

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

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

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

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

8 A. No. I have prepared and submitted pre-filed written testimony, but I have not been called
9 to testify before the Commission. See Schedule JS-S-1 for my past pre-filed testimony and
10 memoranda.

11 **Q. What are your work and educational backgrounds?**

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

19 **Q. What is the purpose of your surrebuttal testimony?**

20 A. The purpose of this testimony is to respond to the rebuttal testimony of Staff witnesses J
21 Luebbert, Claire Eubanks, and Shawn Lange on the following topics:

- 1 • The economic and technical performance of the proposed Persimmon Creek wind
- 2 facility,
- 3 • Evergy Missouri West’s (“Company”) need for capacity,
- 4 • The forthcoming change in the Southwest Power Pool (“SPP”) capacity
- 5 accreditation requirements, and
- 6 • The risk to the operation of the Persimmon Creek facility by the close proximity of
- 7 bat species of conservation concern.

8 **Q. Does Staff acknowledge that there is a need for capacity in Evergy Missouri West’s**
9 **footprint?**

10 A. Yes. As Staff witness J. Luebbert states, there is an “alleged capacity need for Evergy
11 Missouri West”¹ but notes that “Evergy Missouri West meets the SPP resource adequacy
12 requirements on a combined basis with Evergy Metro.”² In addition, Company witness
13 Ms. Messamore also believes that Evergy Missouri West is short on capacity. Evergy
14 Missouri West is short on *owned capacity*, as has been shown in OPC testimony and
15 memoranda in past cases and dockets. See Schedule JS-S-2 for this information.

16 **Q. Do you agree with Company witness Ms. Messamore that Evergy Missouri West is**
17 **short on capacity?**

18 A. Yes, I do. Not only do I agree with Company witness Ms. Messamore that Evergy Missouri
19 West needs more capacity, I also agree with OPC witness testimony in other cases that
20 Evergy Missouri West is short on owned capacity and needs more.

21 **Q. Do you agree with Staff witnesses that the Commission should reject the CCN for the**
22 **Persimmon Creek facility?**

23 A. Yes, I do.

24 **Q. In particular, for which reasons provided by Staff witnesses do you believe that the**
25 **Commission should reject this CCN?**

26 A. The Persimmon Creek wind facility is a poor choice for the following reasons:

¹ J. Luebbert, Rebuttal Testimony, EA-2022-0328, p 5.

² Ibid., p 9, footnote 8.

- 1 1. The facility has shown poor economic performance, making it a risky purchase
- 2 for a generating facility.
- 3 2. SPP is introducing performance-based accreditation for capacity.
- 4 3. The more market penetration intermittent generation like wind attains, the lower
- 5 the return on the energy produced by said generation.
- 6 4. Siting problems with the facility will lead to increased threatened bat take,
- 7 making the facility more prone to curtailment and even full cessation of
- 8 generation.

9 All reasons given will be discussed in more detail below.

10 **II. ECONOMIC PERFORMANCE OF PERSIMMON CREEK FACILITY**

11 **Q. Staff witness Mr. Luebbert states that data of locational marginal prices (“LMPs”) in**
12 **the SPP show an annual trend of increasing negative LMPs³, which show that the**
13 **Persimmon Creek facility has poor economic performance. Do you agree?**

14 A. Yes, I agree with Mr. Luebbert’s assessment. His analysis shows that the Persimmon Creek
15 facility is likely to continue the trend of negative prices, which would make this a liability
16 for ratepayers. It is clear from characteristics of current generation interconnection queue
17 applications that more wind is coming online in SPP. Because the Persimmon Creek
18 facility has shown a trend of large annual intervals of negative prices and more wind is
19 coming online in SPP, the trend of negative LMPs is likely to continue.

20 **Q. If the facility was continuing to run with negative prices, wouldn’t curtailment of its**
21 **operation stop the negative pricing and avert the economic consequences?**

22 A. No. Firstly, any curtailment of the facility would mean a cessation of generation, which
23 could result in a number of negative consequences for the Company. More specifically,
24 curtailing the operation of the facility would result in a smaller number of production tax
25 credits (“PTCs”) for the Company.

³ Ibid., p 28.

1 **Q. Does a reduced dollar amount of PTCs for the facility harm ratepayers?**

2 A. Yes, it does. If the operational nature of the facility decreases the amount of PTCs, then
3 ratepayers will have to cover more of the cost of the facility in rate base.

4 **Q. Does Evergy Missouri West have wind generation in its fleet today?**

5 A. Yes, primarily through purchase power agreements (“PPAs”).

6 **Q. Has Evergy Missouri West demonstrated that it has selected economically**
7 **advantageous wind PPAs to date?**

8 A. No, it has not. According to OPC witness Lena Mantle in Direct Testimony in ER-2022-
9 0130, the “wind PPAs that Evergy projected to be ‘economic’ for customers have cost
10 customers over \$466 million since the SPP energy market opened.”⁴ Ms. Mantle goes on
11 to say in Rebuttal Testimony that the previous wind PPA investments made by the
12 Company have not been economically beneficial to ratepayers, as “there has only been one
13 month since the SPP market started in March 2015 that all of Evergy West’s and Evergy
14 Metro’s PPAs provided revenues greater than their costs.” Ms. Mantle goes on to note that
15 “customers have paid over \$450 million to date for Evergy’s mistaken analysis that these
16 PPAs had favorable economics.”⁵

17 **Q. What is the difference between the Company’s wind PPAs and this asset?**

18 A. The main difference between the Company’s wind PPAs and this asset is that this asset
19 will be owned. What this means is that Persimmon Creek has a return-on investment
20 component. The return-on investment component allows a utility to increase rate base and
21 earn a return on the investment. Earning a return on investment increases the overall costs
22 to ratepayers.

⁴ Lena Mantle, Direct Testimony, ER-2022-0130, p 19.

⁵ Lena Mantle, Rebuttal Testimony, ER-2022-0130, p 24.

1 **Q. Does having a return-on investment component make the Persimmon Creek facility**
2 **a good economic choice for the Company?**

3 A. Because the costs of the Persimmon Creek facility would be included in rate base, the
4 return-on investment component would be a good economic choice for the Company and
5 its shareholders, but not for the ratepayers, who would bear the burden of the costs of a
6 poorly performing generating facility. Not only would it be paid for by ratepayers while
7 benefitting shareholders, it would not provide any economic offset to costs because of its
8 poor performance. Instead, it would likely incur additional costs due to curtailments and
9 negative pricing that ratepayers would be expected to cover in rate base. It would appear
10 from Staff's analysis of the proposal that the Persimmon Creek wind facility will be a
11 similarly bad investment as past PPAs.

12 **III. PERFORMANCE-BASED ACCREDITATION ("PBA")**

13 **Q. Do you agree with Staff witness Luebbert's claim that Persimmon Creek is not an**
14 **efficient way to meet SPP capacity requirements?**

15 A. Yes, I do. As stated above, because the Persimmon Creek facility has demonstrated poor
16 economic performance and inopportune generating times, it is a bad investment. In
17 addition to this, the SPP resource adequacy requirements are changing to include
18 performance-based accreditation. The upshot is that ratepayers will be overpaying for an
19 asset that will not provide any meaningful capacity accreditation moving forward.

20 **Q. Do you agree with Ms. Eubanks⁶ that the amount of capacity needed by Evergy**
21 **Missouri West may change due to the change in capacity accreditation?**

22 A. Yes, I agree with Ms. Eubanks. Introducing PBA for SPP participants may raise Evergy
23 Missouri West's capacity requirement, even if Persimmon Creek's capacity accreditation
24 is added to Evergy Missouri West's capacity.

⁶ Claire Eubanks, Rebuttal Testimony, EA-2022-0328, pp 5-6.

1 **Q. What is performance-based accreditation?**

2 A. PBA is a generating capacity accreditation method that “differentiates generators according
3 to their reliability performance.”⁷ If a facility’s ability to generate power relative to its
4 nameplate capacity has been low, then that facility will receive less accreditation than one
5 that has had high power generation relative to nameplate capacity. The standard with
6 which accreditation takes place then is one based on the actual, observed ability to generate
7 power. One way that SPP distinguishes poor from good performance is by looking at the
8 number of outages that a generator has.

9 **Q. How are the number of outages currently handled on the SPP system?**

10 A. Currently the number of outages are considered at the level of the total system energy or
11 capacity for the planning reserve margin. The planning reserve margin is the amount of
12 capacity that must be maintained on the total system for peak load plus a reserve margin
13 of capacity so that the total energy on the system is not equal to the load. This extra
14 capacity is expressed as a percentage of the total capacity. This means that the accreditation
15 of capacity is not affected by outages of specific generators. Instead the outages are
16 currently used to determine the percentage total of the planning reserve margin.

17 **Q. Will this change under the new PBA rules?**

18 A. Yes. The PBA rules will require the generators to be “held accountable”, so to speak, for
19 their outages. A generators capacity accreditation will be affected by the number of
20 outages it is observed to have had.

21 **Q. What will the PBA rule changes mean for the accredited capacity of the Persimmon
22 Creek facility?**

23 A. During the SPP presentation on PBA before the Commission, SPP Senior Analyst Ben
24 Bright sates that

25 *“We’re seeing more wind and solar, [an] influx of renewables, and both those*
26 *wind and solar resources, and eventually storage, you’ll see a lot of volatility*

⁷ Ben Bright, Lee Elliott, “SPP Update”, August 31, 2022,
<https://psc.mo.gov/CMSInternetData/Agenda%20Presentations/2022%20Presentations/8-31-2022%20SPP%20Update.pdf>, p 15.

1 *associated with those resources.* At the same time, you know earlier we were
2 adding a lot of wind in SPP, it was primarily for energy. You weren't seeing as
3 many retirements. *But the retirements have started picking up probably in the*
4 *last five years or so, so the wind and solar that we're putting on now...we're*
5 *depending on it more for capacity rather than energy.”⁸*

6 **Q. What are the desired benefits of PBA as stated by Mr. Bright?**

7 **A.** The desired benefits of PBA are that the total generation on SPP will increase because
8 those lacking capacity will increase theirs. Because capacity will now be accredited based
9 on past observed performances, the hope is that it will cause many utilities in SPP to
10 increase their generating capacity. This would be a boon for all of SPP because the
11 planning reserve margin will be less than under the prior capacity accreditation scheme,
12 but only if utilities build more capacity to meet that planning reserve margin.

13 **Q. Will these desired benefits to the SPP system be similarly beneficial to Evergy**
14 **Missouri West were the proposed purchase of the Persimmon Creek wind facility to**
15 **take place?**

16 **A.** No, they will not. The changes as a result of PBA that are benefits to SPP will reduce the
17 accredited capacity of the Persimmon Creek facility.

18 **IV. INTERMITTENT RESOURCE DECLINING MARGINAL VALUE**

19 **Q. Do you agree with Mr. Luebbert that the “high-level result of an increased renewable**
20 **penetration in SPP along with accelerated retirements of dispatchable fossil-fuel**
21 **plants is likely to result” in increased volatility with “periods of over-supply of**
22 **electricity during some periods and insufficient supply in others”⁹?**

23 **A.** Yes, it is. Mr. Luebbert is talking about the phenomenon of declining marginal value
24 (“DMV”). DMV occurs when the market penetration of intermittent generation like wind
25 and solar hits a certain point. MIT’s *Future of Solar* study characterizes the situation:

⁸ Missouri PSC Agenda, August 31, 2022, <http://psc.mo.gov/Videos/VideoDetail.aspx?Id=6497>.

⁹ J Luebbert, Rebuttal Testimony, EA-2022-0328, p 23.

1 “[A]s a result of basic supply-and-demand dynamics, solar capacity systematically
2 reduces electricity prices during the very hours when solar generators produces the
3 most electricity. Beyond low levels of penetration, and increasing solar
4 contribution results in lower average revenues per kW of installed solar capacity.
5 For this reason, even if solar generation becomes profitable without subsidies at
6 low levels of penetration, there is a system-dependent threshold of installed PV
7 capacity beyond which adding further solar generators would no longer be
8 profitable.”¹⁰

9 Because of this diminishing value once more wind comes online in SPP, coupled with the
10 fact that the facility is already performing poorly, the facility will lead to unnecessary
11 economic losses borne by ratepayers in Evergy Missouri West’s service territory.

12 **Q. Do you agree with Mr. Luebbert’s assessment that because of planned generation**
13 **retirements coupled with increased intermittent generation, “the market prices to**
14 **serve load is [sic] likely to become more volatile over time”¹¹?**

15 **A.** Yes, I agree with Mr. Luebbert. The problem is one of a general nature for Evergy Missouri
16 West, but also applies directly to Persimmon Creek. As more wind generation comes
17 online in SPP, as is predicted, the market price of energy generated by wind facilities will
18 decrease, making it more likely that the Company will invest in more generation to make
19 up for the decrease in sales and will pay higher prices for energy at times when the weather
20 is not favorable to wind generation. Both will affect ratepayers negatively.

¹⁰ Reja Amatya, Fikile Brushett, Andrew Campanella, et al., The Future of Solar: An Interdisciplinary Study, 2015, Energy Initiative Massachusetts Institute of Technology, <https://energy.mit.edu/wp-content/uploads/2015/05/MITEI-The-Future-of-Solar-Energy.pdf>.

¹¹ J Luebbert, Rebuttal Testimony, EA-2022-0328, p 25.

1 **V. CURTAILMENTS RELATED TO CONSERVATION CONCERNS**

2 **Q. Staff Witness Mr. Lange discusses the potential problems resulting from poor siting**
3 **of the Persimmon Creek facility. What are these concerns?**

4 A. The Persimmon Creek facility is sited between caves which are the only known locations
5 for maternity colonies of the Brazilian free-tailed bat. As the report included in Mr.
6 Lange's testimony notes, the Brazilian free-tailed bat is a species of conservation concern,
7 and the Persimmon Creek facility is located in close proximity to these maternity caves.

8 **Q. Why is the location in close proximity to these caves a problem?**

9 A. The operation of wind turbines results in bat and bird fatalities in sometimes great numbers,
10 depending on the location of the facility. Facilities that are located close to bat maternity
11 or mating caves and tree-stands lead to more fatalities of bats than those sited away from
12 these locations. Since the Persimmon Creek facility is located in close proximity to the
13 only known caves used as maternity colonies for the Brazilian free-tailed bat, this species
14 will see an increase in fatalities from the Persimmon Creek facility.

15 **Q. What effects do higher numbers of fatalities of bat species have on the operations of**
16 **wind generation facilities like Persimmon Creek?**

17 A. The U.S. Fish and Wildlife Service allows the take of a limited number of bat and bird
18 species that are of conservation concern. But, if that take limit is exceeded for a bat species,
19 curtailments must be imposed on the facilities, especially at night when bats are active. If
20 the status of the bat species is endangered, then the facility may be forced to stop generation
21 entirely.

22 **Q. Do nighttime curtailments of wind facilities due to conservation concerns pose any**
23 **specific problems for wind generation?**

24 A. Yes, they do. Wind is strongest at night in areas with high wind concentration. If a wind
25 generation facility is curtailed at night, then its most productive time of day is removed.
26 The Persimmon Creek facility mostly generates energy at night. Along with the other

1 problems discussed above, this would make the Persimmon Creek facility a very risky
2 purchase to increase the capacity of Evergy Missouri West.

3 **Q. Does the purchase of the Persimmon Creek facility promote the public interest?**

4 A. No, it does not.

5 **Q. Is the recommendation that the Commission reject this CCN in the public interest?**

6 A. Yes, it is. Because this facility would burden Evergy Missouri West ratepayers with \$245.7
7 million and would only benefit shareholders for the lifespan of the Persimmon Creek
8 facility, the rejection of this CCN would be in the public interest.

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

10 A. Yes, it does.

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)
Permission and Approval of a Certificate of Public)
Convenience and Necessity Authorizing It to)
Purchase, Own, Operate, Maintain and Otherwise)
Control and Manage an Existing Wind Generation)
Facility in Oklahoma)

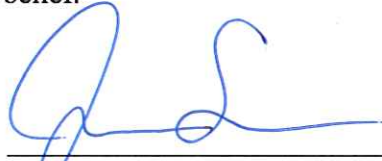
Case No. EA-2022-0328

AFFIDAVIT OF JORDAN SEEVER

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 surrebuttal 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 31st day of January 2023.



TIFFANY HILDEBRAND
My Commission Expires
August 8, 2023
Cole County
Commission #15837121



Tiffany Hildebrand
Notary Public

My Commission expires August 8, 2023.