

Public Version

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Witness: Jason Humphrey

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Sponsoring Party: Evergy Missouri West

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**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NOS.: EA-2022-0328**

**SURREBUTTAL TESTIMONY**

**OF**

**JASON HUMPHREY**

**ON BEHALF OF**

**EVERGY MISSOURI WEST**

**Kansas City, Missouri**

**January 2023**

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**SURREBUTTAL TESTIMONY**

**OF**

**JASON HUMPHREY**

**Case No. EA-2022-0328**

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

2 A: My name is Jason Humphrey. My business address is 1200 Main, Kansas City,  
3 Missouri 64105.

4 **Q: Are you the same Jason Humphrey who previously submitted Direct and**  
5 **Supplemental Direct testimony in this docket?**

6 A: Yes, I am.

7 **Q: What is the purpose of your Surrebuttal testimony?**

8 A: The purpose of my Surrebuttal testimony is to address:

9 I. The importance of a thoughtful and measured approach to adding new generation  
10 resources;

11 II. Corporate and state renewable resource goals;

12 III. Environmental concerns and in-service criteria of Staff witness Lange (*see* Lange  
13 Rebuttal, at 1-7);

14 IV. Project costs and benefits, and the production tax credit (“PTC”) tracker proposed  
15 by Staff witness Young (*see* Young Rebuttal, at 2-6);

16 V. The request for extension and cost-related items addressed by Staff witness  
17 Luebbert (*see* Luebbert Rebuttal, at 2-8, 40-47, and 56-58);

18 VI. EMW’s operational and financial qualifications addressed by Staff witnesses Hull  
19 and Won (*see* Hull & Won Rebuttals, at 1-3); and

1 VII. The pricing and performance of the Persimmon Creek Wind Farm (“Persimmon  
2 Creek”) through 2022.

3 **Q: Are you sponsoring any schedules with your Surrebuttal testimony?**

4 A: Yes. I will be sponsoring **Confidential Schedule JH-13** – Persimmon Creek  
5 Performance and Pricing Adjustment Calculation.

6 **Q: Can you please summarize your Direct and Surrebuttal testimony?**

7 A: Yes. I will begin where I ended my Supplemental Direct testimony. Persimmon  
8 Creek is the right project at the right time. It is reasoned to be the lowest-cost  
9 project available to Evergy Missouri West, Inc.’s (“EMW” or “Company”)  
10 customers on a risk-adjusted basis, even when considering the tax benefits of the  
11 Inflation Reduction Act (“IRA”). Persimmon Creek was selected through a  
12 competitive Request for Proposal (“RFP”) process that evaluated options from very  
13 early-stage development sites, to traditional build transfer opportunities, to existing  
14 sites like Persimmon Creek. Throughout the RFP evaluation and subsequent short-  
15 listed project negotiations, Persimmon Creek clearly ranked above the other assets  
16 evaluated on risk, as it has experienced none of the broader inflation, supply chain,  
17 construction, or permitting pressures, and also was the lowest-cost option  
18 evaluated. Both on a cost-per-kilowatt (“\$/kW”) installed capacity basis and on a  
19 Levelized Cost of Energy (“LCOE”) basis, which has been identified as the “best  
20 financial technique to compare different energy generation sources,”<sup>1</sup> Persimmon  
21 Creek maintained the best risk-adjusted view.

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<sup>1</sup> *In re Grain Belt Express Clean Line LLC’s Application for a Certificate of Convenience and Necessity*, No. EA-2016-0358, Report and Order on Remand, April 19, 2019, p. 26.

1 Further, EMW is financially and operationally able to add Persimmon  
2 Creek to its generation portfolio. Persimmon Creek utilizes GE wind turbine  
3 generator technology similar to that of sister sites Spearville I and Spearville II, and  
4 will continue to have the benefit of the GE Full Service Agreement after close.  
5 Persimmon Creek offers EMW long-term ownership of a highly efficient and  
6 productive renewable resource at an extremely competitive price. The transmission  
7 path to EMW load was also the best of the options evaluated, while being located  
8 just a couple of hours from Evergy’s existing sister wind-sites. The totality of all  
9 this evidence makes it clear that Persimmon Creek is the right asset to satisfy the  
10 150 MW of wind by 2024, identified as part of the Integrated Resource Planning  
11 (“IRP”) process described in Direct, Supplemental Direct, and Surrebuttal  
12 testimony of Company Witness Messamore.

13 **I. The Importance of a Thoughtful and Measured Approach To Adding**  
14 **New Generation Resources**

15 **Q: Does Staff advise when it is proper to add generation resources?**

16 **A:** Not directly, but the criteria that Staff proposes to identify the need for new  
17 resources is when a utility is facing imminent or actual shortfalls of either energy  
18 or capacity. Such an approach, given the timeframes to procure, permit and build  
19 new generation, allows too little time and would at best compel a reactionary  
20 selection of new resources for a utility’s customers rather than a deliberate glide  
21 path over a reasonable time period. Carried to its logical conclusion, a utility like  
22 EMW would only be able to add a new resource when it identified an immediate  
23 shortfall which could come with a single change in a market rule, an equipment  
24 failure at a major generation station, a large economic development announcement,

1 or environmental action that eventually requires plant shutdown. At that point, the  
2 choices would likely be untimely and suboptimal, the costs would likely be high,  
3 and the best interests of EMW customers would be at risk.

4 **Q: Is there a less reactionary way to approach resource additions overall?**

5 A: Yes. The IRP process under Chapter 22 of the Commission's Rules specifically  
6 calls for implementation plans to be developed over a period of years by using  
7 minimization of the present worth of long-run utility costs as the primary selection  
8 criterion in choosing a preferred resource plan, consistent with a variety of factors  
9 set forth in the IRP Rule. This long-term, deliberate approach allows EMW to  
10 evaluate and select the resources that are best suited to meet its preferred plans.

11 **Q: Did the Company's 2022 IRP include the addition of a wind resource in its  
12 implementation plan?**

13 A: Yes. And, as is appropriate, when a specific resource addition is identified, as was  
14 Persimmon Creek in this case, notice of the change in EMW's plan was filed with  
15 the Commission. This was discussed by Company witness Kayla Messamore at  
16 pages 2-5 of her Direct testimony and in detail in her Supplemental Direct  
17 testimony at pages 3-15.

18 **Q: Did the Company compare alternative options when selecting Persimmon  
19 Creek for this resource addition?**

20 A: Yes. As discussed extensively in my Direct testimony at pages 5-10 and  
21 Supplemental Direct testimony at pages 4-11, EMW conducted a robust RFP  
22 process for wind resources in October 2021. It conducted a comparative analysis  
23 of resources that responded to the RFP, including their cost, both on a \$/kW of

1 nameplate capacity and a LCOE basis. The Company also evaluated issues related  
2 to transmission access, supply chain, construction, and permitting risk. Staff does  
3 not dispute that Persimmon Creek is the best project received in the RFP. Instead,  
4 Staff witness Luebbert identifies “other alternatives, potentially including solar  
5 facilities”<sup>2</sup> that he suggested should have been considered, given production tax  
6 credit (“PTC”) issues. While the Company was only able to evaluate the projects  
7 for which it received offers to its RFP and not “other alternatives,” the analysis that  
8 the Company performed included the impact of a shortened PTC duration for  
9 Persimmon Creek. This analysis concluded that Persimmon Creek was the best  
10 alternative across all the factors listed above.

11 **Q: Why is it important to compare real rather than theoretical alternatives when**  
12 **selecting a generating resource?**

13 A: As Ms. Messamore describes in her Direct testimony at page 3-4, the IRP attempts  
14 to balance a multitude of possible futures into a preferred plan of resources that  
15 would operate the most efficiently over a 20-year time horizon, as evidenced by the  
16 net present value of the revenue requirement (“NPVRR”). Once that plan is  
17 identified, it is important that an electric utility act on that plan. In this case, EMW  
18 evaluated Persimmon Creek versus other resources that responded to the RFP.  
19 Compared to those other resources, Persimmon Creek demonstrated the best  
20 balance of cost and risk to satisfy EMW’s preferred plan. Other than mentioning  
21 the longer-duration PTC credits available with some projects, which had already

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<sup>2</sup> Luebbert Rebuttal, at 43 & 53.

1           been factored into the pro-forma LCOE analysis discussed in my Supplemental  
2           Direct testimony at pages 17-18, Staff has offered no viable alternative.

3   **Q:   Have there been additional data points on permitting, supply chain, and**  
4   **construction risk since you filed Supplemental Direct testimony?**

5   A:   Yes. In addition to the dramatic inflationary rise in the broader market and  
6       renewables markets that I discussed in my Supplemental Direct testimony (to which  
7       Persimmon Creek is immune), Persimmon Creek has the advantage that it was  
8       already permitted, constructed, and completely insulated from supply-chain risk. In  
9       fact, The Wall Street Journal published an article on January 22, 2023 entitled  
10      “Investors Plow Into Renewables, but Projects Aren’t Getting Built.”<sup>3</sup> It cited S&P  
11      Global Market Intelligence data showing that new wind installations “plunged  
12      77.5% in the third quarter of 2022” (July-September) compared with the same  
13      period in 2021.

14   **Q:   What issues were identified in the article to explain why projects are not**  
15   **getting built?**

16   A:   Consistent with the risks identified in my Direct and Supplemental Direct  
17       testimony, the article cited supply chain and logistics challenges in delivering  
18       equipment, permitting delays or rejections, lengthy interconnection queue delays,  
19       and inflation. All of this reinforces what a unique, attractive, and de-risked  
20       opportunity Persimmon Creek is for the customers of EMW as it is completely  
21       immune to these external market forces that have dramatically impacted the entire  
22       renewable sector and broader economy.

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<sup>3</sup>           <https://www.wsj.com/articles/investors-plow-into-renewables-but-projects-arent-getting-built-11674352404?page=1>



1                                   **II.       Corporate and State Renewable Resource Goals**

2   **Q:     Witness Luebbert discusses corporate renewable goals in his testimony. Does**  
3   **the Company have corporate renewable goals?**

4   A:    No. The Company has targeted a 70% reduction from 2005 CO2 emissions levels  
5        by 2030 and net-zero by 2045, but has no specific renewables goals. Renewables  
6        are very likely to be a large portion of the achievement of those reduction goals,  
7        but other non-carbon emitting forms of generation are likely to be part of the  
8        solution as well.

9   **Q:     Does Missouri have state-level renewables goals?**

10  A:    Yes. In addition to the Renewable Energy Standard (“RES”),<sup>4</sup> Missouri has also  
11        adopted policy at the state level in support of renewable energy additions. Two key  
12        pieces of legislation have been adopted by the state to support the overall transition  
13        to renewables. The first is the Plant-In-Service Accounting (“PISA”)  
14        statute<sup>5</sup>transition is Missouri’s securitization statute<sup>6</sup> which allows for  
15        securitization treatment on “Energy Transition Costs.” Energy Transition Costs are  
16        intended for the costs of a prudent asset retirement to be recovered quickly through  
17        a securitized utility tariff bond, which would then allow the utility to invest those  
18        proceeds into investments that support the energy transition.

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<sup>4</sup> Renewable Energy Standard Requirements, 20 CSR 4240-20.100.

<sup>5</sup> 393.1655 RSMo.

<sup>6</sup> See § 393.1700.1 (13), RSMo.

1 **Q: Is the Company utilizing any of these supportive policies in its acquisition of**  
2 **Persimmon Creek?**

3 A: Yes. The company has elected PISA treatment, and the Persimmon Creek  
4 investment, due to its renewable nature, qualifies for PISA.

5 **III. Response to Staff Witness Lange’s Rebuttal Testimony**

6 **Q: What environmental concerns were addressed by Staff witness Lange?**

7 A: Staff witness Lange identified a section of a confidential report that addressed bat  
8 and bird mortality risk of Persimmon Creek due to siting in proximity of bat habitat.  
9 (See Lange Rebuttal, at 4-6.) Due to this finding in the RFP stage, the technical  
10 team ranked Persimmon Creek’s environmental attributes “low” relative to other,  
11 speculative options on the RFP short list. As a reminder, Persimmon Creek was the  
12 only fully constructed project on the short list where the environmental concerns  
13 were not speculative but able to be fully evaluated.

14 **Q: Was this potential environmental concern further evaluated by the Company**  
15 **after the RFP stage?**

16 A: Yes. In fact, in the “overall” category which ranked projects according to all the  
17 known factors, including environmental concerns, Persimmon Creek was listed in  
18 the “high” category. For the environmental concerns, the technical team was able  
19 to discuss previous technical reports produced by the same firm providing the  
20 diligence memo in this case. It was found that a voluntary Bat and Bird  
21 Conversation Plan was developed and Persimmon Creek was sited specifically to  
22 minimize Bat and Bird impact. \*\*\*“ [REDACTED]

23 [REDACTED]

24 [REDACTED]

1 [REDACTED]  
2 [REDACTED]  
3 [REDACTED]  
4 [REDACTED]\*\*<sup>7</sup> During a post-  
5 commercial operation facility monitoring study conducted in 2018-2019, higher  
6 rates of \*\* [REDACTED] \*\* bat mortality were observed, but no additional  
7 action was taken by the Oklahoma Department of Wildlife and Conservation and  
8 has not been proposed in the operating years since.

9 **Q: If an Incidental Take Permit (“ITP”) or Habitat Conservation Plan (“HCP”)**  
10 **is needed in the future, should those costs be borne by shareholders?**

11 **A:** No. Persimmon Creek is in full environmental compliance with all laws and  
12 regulations today. The project developers were intentional in the project siting and  
13 development of a voluntary Bat and Bird Conservation Plan, and the facility has  
14 operated within all parameters known and laid out since construction. The potential  
15 for a rule or law to change in the future is not a reason for shareholders to bear that  
16 risk. If the law were to change, shareholders would play their role to provide the  
17 capital for investments, which would then be subject to review for prudence during  
18 a future rate case.

19 **Q: How would this condition affect other forms of infrastructure investment?**

20 **A:** Over the life of an investment, numerous laws may change, such as air quality  
21 standards, water standards, or species protection standards as offered in this case  
22 by Staff witness Lange. Law and regulation are not a “one and done” at the time of

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<sup>7</sup> Schedule JH-9, at 85.

1 purchase, as Staff witness Lange would argue. Instead, the utility is required to  
2 comply with the law of the land at all times, and as the law evolves, the utility must  
3 make investments to stay compliant.

4 This is no different than wildlife protections that may be enhanced or  
5 changed over time on wires or substations for falcons, owls, eagles, or other  
6 affected species. The utility may be required to change operation or design of an  
7 asset in order to keep wildlife protected with covers, linespacing, undergrounding,  
8 or other forms of modification. Or, similarly, investments may be required to  
9 comply when rules change or standards tighten for air-quality control. It has not  
10 been the historical practice for Missouri regulation, and is not appropriate today,  
11 that the shareholder be solely required to bear the burden of a previously compliant  
12 regulated asset that has had to be updated to meet the standards of law at a future  
13 date.

14 **Q: What was the technical advisors' overall technical view of the facility?**

15 A: As mentioned in my Supplemental Direct testimony, Persimmon Creek went  
16 through an Independent Engineer evaluation during the site commissioning in  
17 2018. The Company also engaged the same firm for a technical evaluation of the  
18 site during the RFP process in 2022. While there were minor items identified during  
19 the inspection, the overall assessment found the site facilities to be in “good  
20 condition”.<sup>8</sup> The site had high historical production and availability numbers and,  
21 most importantly, “did not identify any fatal flaws or significant concerns.”<sup>9</sup> These  
22 reports were provided as Confidential Schedules JH-9 and JH-10.

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<sup>8</sup> Confidential Schedule JH-10, at 3.

<sup>9</sup> Confidential Schedule JH-10, at 3.

1 **Q: What about Staff witness Lange’s suggested condition that investments for**  
2 **additional projects, if necessitated by an ITP or HCP at Persimmon Creek to**  
3 **comply with the Southwest Power Pool (“SPP”) resource adequacy**  
4 **requirement, should be borne by shareholders?**

5 A: This suggested condition should be rejected outright. The Company has applied for  
6 an operating Certificate of Convenience and Necessity (“CCN”) regarding a  
7 specific existing asset, not a construction or line CCN. The acquisition is made in  
8 a context of an IRP that calls for significant generation additions to be made over  
9 the IRP planning period. If an ITP or HCP was ultimately required for Persimmon  
10 Creek, it would be to take a facility that is currently 100% compliant with rules and  
11 regulations and update it to be compliant with the new law, rules, and regulations.  
12 These additions would have no relation to compliance with SPP resource adequacy  
13 requirements other than in ensuring the facility can continue to operate in  
14 compliance with new law, rules, and regulations. Any investments required would  
15 simply be a part of EMW’s overall plan to invest in maintaining compliance with  
16 changing regulations.

17 Fundamentally, Staff witness Lange’s proposed requirement would  
18 constitute prospective ratemaking on future asset additions, which Company  
19 witness Messamore has shown in Direct, Supplemental Direct, and Surrebuttal  
20 testimony to be to the benefit of Evergy Missouri West customers and a clearly  
21 identified need. Persimmon Creek is currently in compliance with environmental  
22 regulations and there are no known or expected changes which would alter that fact.  
23 As a result, this prospective ratemaking of an unknown investment associated with

1 an unknown new/updated regulation would be inconsistent with the regulatory  
2 construct and bad regulatory policy. It is particularly inappropriate for this asset,  
3 given the IRP and Change in Plan filing that have already illustrated that  
4 Persimmon Creek presents an extremely high value addition to the portfolio of  
5 Evergy Missouri West.

6 **Q: Staff witness Lange also proposes in-service requirements. Is what Mr. Lange  
7 proposes reasonable?**

8 A: Staff witness Lange offers proposed in-service criteria in Schedule SEL-2. Many  
9 of the items are reasonable, however, other than testing the Company's Supervisory  
10 Control and Data Acquisition ("SCADA") capabilities (part 2b) after the six months  
11 of transition operation, all of these items have already been satisfied when the wind  
12 farm went into SPP service in 2018. The Company's concern is with the potential  
13 expense of recertifying an asset that has already been performing in SPP service.  
14 The site was commissioned with an Independent Engineer, GE, and site owner in  
15 2018, and continues in service today. EMW has provided significant data to Staff  
16 through discovery on this topic.

17 While the Company acknowledges that in-service criteria have been used  
18 in the past for operating assets, none of those assets were acquired through the  
19 Commission's newly adopted Operating CCN Rule put in place in 2018. This was  
20 a clear Commission effort to streamline the process for acquisition of existing assets  
21 prospectively. In fact, the most recent of the cases cited by Witness Lange was  
22 completed over a decade<sup>10</sup> before this preceding and 8 full years before the

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<sup>10</sup> Lange Rebuttal, at 3.

1 Operating CCN process was adopted. We believe the conditions to be reasonable if  
2 appropriately implemented, and either have been met as previously shared with  
3 Staff through the discovery process or can be after the SCADA functionality is  
4 transferred to Evergy Missouri West.

5 **IV. Response to Staff Witness Young’s Rebuttal Testimony**

6 **Q: What will happen with the power sales from Persimmon Creek after EMW**  
7 **purchases the asset?**

8 A: Since EMW is purchasing Persimmon Creek for utility service and it is already an  
9 operating asset, Persimmon Creek will begin to generate electricity sales for Evergy  
10 Missouri West customers immediately after closing. This is before Persimmon  
11 Creek’s inclusion in an EMW rate case and before customers are bearing any of the  
12 costs of the investment. As described by Staff witness Young, the sales from  
13 Persimmon Creek will immediately begin to benefit EMW customers through the  
14 Company’s Fuel Adjustment Clause (“FAC”).

15 **Q: Should EMW establish a PTC tracker as recommended by Staff witness**  
16 **Young?**

17 A: No. The PTCs generated by the sale of electricity from Persimmon Creek are one  
18 of the mechanisms through which EMW can reduce the impact of regulatory lag.  
19 Missouri state law, through Plant-In-Service Accounting (“PISA”) and the  
20 Missouri renewable energy standard rate adjustment mechanism (“RESRAM”),  
21 encourages investment in renewable resources and offers legislative enhancement  
22 for doing so. While Evergy Missouri West is not procuring Persimmon Creek for  
23 Missouri RES compliance and thus will not be utilizing the RESRAM for this asset,  
24 it has elected PISA treatment. Evergy Missouri West will therefore flow the sale of

1 electricity back to customers through the FAC, but will defer 85% of the plant's  
2 depreciation expense with carrying costs until the asset is reflected in rates. This is  
3 not a 100% deferral, and, importantly, also reflects no deferral of plant operating  
4 costs.

5 The fact that EMW customers immediately begin receiving benefits of this  
6 zero energy-cost resource flowing through the FAC prior to the asset being  
7 recovered in base rates—with none of the operating and maintenance expenses, and  
8 only a partial 85% of the plant's depreciation expense with carrying costs being  
9 deferred until the asset is reflected in rates—already reflects an appropriate balance  
10 between the shareholders and customers of EMW. The PTCs are an additional  
11 federal benefit of renewables investment, but the same investment is encouraged  
12 with PISA and will be appropriately incorporated into rates in a future rate case. In  
13 the meantime, it should be an offset to the regulatory lag EMW will suffer on the  
14 investment until such time that Persimmon Creek is fully in rates. The Commission  
15 should therefore reject this PTC deferral proposal. Company witness Dority will  
16 further address the regulatory policy shortcomings of Mr. Young's proposed PTC  
17 tracker.

18 **Q: How are the costs and benefits discussed by Staff witness Young already**  
19 **accounted for in the analysis performed by the Company? Are all these costs**  
20 **reflected in rates when the purchase is completed?**

21 A: The costs and benefits that Staff witness Young discusses are included in the LCOE  
22 analysis performed by the company.<sup>11</sup> There are a number of costs that the

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<sup>11</sup> Young Rebuttal, at 2-4.



1 Company incurs when a generation asset is added, and it is important to understand  
2 the totality of those costs when looking at the overall LCOE of an asset. As Staff  
3 witness Young describes, these costs “are not reflected in the rates set in Case No.  
4 ER-2022-0130.”<sup>12</sup> Costs for which the Company does not have a mechanism to  
5 properly reflect them ahead of the next general rate case, namely operations and  
6 maintenance expense (“O&M”) and the 15% of depreciation not captured by PISA,  
7 represent regulatory lag to the Company. This lag will be incurred while the EMW  
8 customers benefit from the energy production of Persimmon Creek through the  
9 FAC process. For the property tax costs that Staff witness Young identifies, EMW  
10 will pay the property tax that is lawfully due at the time and will use the newly  
11 enacted property tax tracker. Once again, it is important to note that all of these  
12 types of costs are reflected in the LCOE analysis for Persimmon Creek and the  
13 other alternative projects evaluated.

14 **V. Response to Staff Witness Luebbert’s Rebuttal Testimony**

15 **Q: Is EMW pursuing an extension in this case as suggested by Staff witness**  
16 **Luebbert?**

17 **A:** No. As Staff is well aware and is reflected in Confidential Schedule JH-4, the  
18 Membership Interest and Purchase Agreement (“MIPA”) has a contractual sunset  
19 date. The MIPA is anticipated a close by \*\* [REDACTED]

20 [REDACTED]  
21 [REDACTED] \*\* Staff filed  
22 the procedural schedule we are following in this case on November 23, 2022, and

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<sup>12</sup> *Id.*

1 Evergy filed its agreement with Staff’s proposed schedule on November 29, 2022.

2 In order to preserve the ability for EMW to acquire Persimmon Creek, we must

3 continue in this docket on the timeline Staff proposed and to which Evergy agreed.

4 **Q: Is the LCOE an appropriate evaluation metric? Why was it used when**  
5 **evaluating the projects in this RFP?**

6 A: Yes. A key consideration in evaluating different projects is to make sure that the

7 evaluation controls for as many variables as possible, and thus keeps things “apples

8 to apples” rather than “apples to oranges.” While projects have nuances as

9 addressed by Staff witness Luebbert,<sup>13</sup> it is important when utilizing a metric to

10 keep assumptions as consistent as possible, to fairly evaluate alternatives and not

11 tip the scale to a specific alternative. In the case of energy generating projects, the

12 LCOE is often used because it is a well-understood metric that takes into account a

13 number of factors, including: anticipated or validated production of an asset,

14 construction cost, the utilities’ cost of capital, taxes, production or investment tax

15 credits, depreciable life, and O&M and maintenance capital, amongst other

16 attributes. Indeed, the Commission has recognized that the use of the LCOE is the

17 “best financial technique to compare different energy generation sources.”<sup>14</sup> In the

18 case of the RFP that led to the selection of Persimmon Creek, LCOE was used to

19 provide a view on an “apples to apples” comparison between proposed alternatives.

20 This generally occurred by making some assumptions about the project. For

21 example, the year 1, P50, energy value was used and assumed for the 20-year life

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<sup>13</sup> Luebbert Rebuttal, at 44.

<sup>14</sup> *In Re Grain Belt Express Clean Line LLC’s Application for a Certificate of Convenience and Necessity*, No. EA-2016-0358, Report and Order on Remand, April 19, 2019, p. 26.

1 for those projects that had not yet been built, and the historical production for  
2 Persimmon Creek for its 16 years of remaining life were used.

3 **Q: Was a capacity factor assumed for Persimmon Creek as noted by Staff witness**  
4 **Luebbert in his Rebuttal testimony?<sup>15</sup> Is the Net Capacity Factor (“NCF”)**  
5 **assumed in the LCOE evaluation likely to be different than actual production?**

6 A: Yes, for the years that must be estimated because they have not yet happened.  
7 Energy production, particularly of variable energy resources that participate in a  
8 wholesale marketplace, are going to vary. This is widely understood and nobody  
9 argues that point. The wind will blow differently, the market will demand energy  
10 at different points in time in different seasons, some years will have less  
11 maintenance and some years more. All of these factors will contribute to natural,  
12 expected variability in NCF.

13 However, only Persimmon Creek offers actual historical energy production  
14 performance. The other evaluated resources in LCOE were evaluated using a P50  
15 value, which is a value of expected generation over a project life where half of the  
16 years generate over the P50 value and half of the years generate under the P50  
17 value. These are all modeled numbers. Persimmon Creek, unlike all the alternatives,  
18 had actual results on which to base its LCOE. The numbers EMW selected for its  
19 filing represented the three full years of operation since it went commercial: 2019,  
20 2020, and 2021, which in turn eliminated data from early operational issues at the  
21 tail end of 2018 and variability in current-year operations in 2022. The number used  
22 for the LCOE model in my Direct testimony was a well-reasoned number,

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<sup>15</sup> Luebbert Rebuttal, at 41.

1 supported by three years of actual performance, to select for this LCOE evaluation.  
2 It has naturally been variable year to year, month to month, and day to day.  
3 Regardless of this expected variation, the site has maintained an ~50% NCF.

4 However, as I will discuss later in my testimony, when site performance is  
5 updated to include the full year of 2022, this historical performance is reaffirmed.  
6 This is important to note in light of Staff witness Luebbert's assertion that the NCF  
7 is inflated and the PTC value is over-estimated.<sup>16</sup> While naturally variable, the site  
8 performance is very consistent around the ~50% level, with the capacity factor in  
9 2022 being higher than 2021.

10 **Q: Is it disputed that Persimmon Creek has the lowest LCOE of the evaluated**  
11 **projects? Did inclusion of the impacts of the IRA change that conclusion?**

12 A: No, it is not. In fact, Staff witness Luebbert admits that LCOE and this method were  
13 consistently used to evaluate alternatives and make an asset selection. The LCOE  
14 analysis was performed equally across the options by using the P50 value for  
15 projects to be constructed and the actual, historical, NCF for Persimmon Creek.  
16 Staff witness Lange states: "Evergy assumed consistent energy production  
17 throughout the asset life to evaluate the LCOE of multiple projects associated with  
18 the response to the Company's request for proposals."<sup>17</sup> In fact, if the Company  
19 had done anything differently, such as assumed curtailments for negative pricing  
20 five to twenty years in the future, the analysis would have been immediately "apples  
21 and oranges" with the Company taking a point of view on what will happen at a  
22 specific node far into the future on a different grid, with a different market, and

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<sup>16</sup> Luebbert Rebuttal, at 41.

<sup>17</sup> Luebbert Rebuttal, at 42-43.

1 necessarily different assumptions. Ironically, the only reason that witness Luebbert  
2 can perform some of the market analysis he does, flawed as it may be as discussed  
3 by Company witness Messamore, is that Persimmon Creek has actual performance  
4 data. Rather than this being a net-positive, which it most certainly is, witness  
5 Luebbert incorrectly tries to cast the extreme reliability of the historical Persimmon  
6 Creek data versus modeled assumptions for other units as a negative, while giving  
7 no benefit to the permitting, supply chain, construction, and cost risk other projects  
8 certainly bear.

9 Furthermore, as noted in my Supplemental Direct testimony, the inclusion  
10 of the impacts of the IRA on other asset types did not change the relative ranking  
11 of Persimmon Creek versus other projects evaluated.<sup>18</sup> This is an extremely  
12 important fact to highlight as the alternative projects from the RFP are still  
13 susceptible to the other market risks identified, and are likely to be at a higher cost  
14 today than they were at the time of the most recent pricing update. The IRA analysis  
15 re-emphasizes what a unique, de-risked, and customer-friendly opportunity  
16 Persimmon Creek is rather than any reason to not proceed.

17 **Q: Is there an analysis that the Company performs to look at an asset or types of**  
18 **assets with multiple potential futures?**

19 **A:** Yes. It is the Integrated Resource Plan. As Company witness Messamore described  
20 in Direct and Supplemental Direct Testimony, EMW was benefited by the addition  
21 of wind generically, and when the modeling was updated for the change in plan

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<sup>18</sup> Humphrey Supplemental Direct, at 17-18.

1 filing it was shown to provide a **\$130 million NPVRR benefit to Evergy Missouri**  
2 **West ratepayers.** That math is compelling and should not be ignored.

3 **Q: Is LCOE intended to dictate an around-the-clock nodal clearing price in the**  
4 **SPP market?**

5 A: No. LCOE is intended to provide an “apples to apples” levelized price of energy  
6 for an asset from which to evaluate alternatives. It provides an economically  
7 rational method to compare between alternative projects that have different  
8 attributes. In this case, Persimmon Creek has been shown to be the undisputed  
9 lowest LCOE out of the 2021 Evergy Wind RFP. However, the LCOE is not  
10 intended to, nor will it ever, represent the market clearing price for a marginal cost  
11 market such as the SPP.

12 **Q: Did EMW produce analysis on curtailment, transmission risk, and market**  
13 **revenues on Persimmon Creek versus alternatives?**

14 A: Yes. While the LCOE metric does not perform this type of analysis (nor is it  
15 intended to, as discussed above), the Company supplied Confidential Schedule JH-  
16 11 in which evaluated all three of these items for which Staff witness Luebbert  
17 expressed concern, curtailment risk, transmission risk, and market revenues, for the  
18 short-listed projects. What it showed was that Persimmon Creek offered the least  
19 curtailment, the least transmission risk to Evergy Missouri West, and the most  
20 market revenue in all scenarios studied for all three years studied. While Staff  
21 witness Luebbert presents hypotheticals and conjecture about “other projects,” this  
22 analysis from a respected industry leader showed that Persimmon Creek offers  
23 EMW’s customers the least risky investment in light of those concerns. This

1 analysis, combined with the LCOE analysis, were performed specifically to  
2 compare Persimmon Creek to actual available alternatives—not to hypothetical  
3 “other projects” which Staff alludes to, but provides no specifics on.

4 **VI. Response to Staff Witnesses Hull’s and Won’s Rebuttal Testimonies**

5 **Q: Is Evergy Missouri West qualified to own, operate, maintain, and otherwise**  
6 **control Persimmon Creek?**

7 A: Yes. Staff Witness Hull agrees with the Company’s direct position on this issue:  
8 “Yes, based on Evergy Missouri West being able to utilize expertise and knowledge  
9 from its affiliated jurisdictions, Staff concludes that Evergy Missouri West is  
10 qualified to own, operate, maintain, and otherwise control and manage the  
11 project.”<sup>19</sup>

12 **Q: Does Evergy Missouri West have the financial ability to purchase Persimmon**  
13 **Creek?**

14 A: Yes. Staff witness Won agrees with the Company’s direct position on this issue:  
15 “Yes...it is reasonable to conclude that EMW has the financial ability to purchase,  
16 operate, manage, maintain, and control Persimmon Creek Wind Farm.”<sup>20</sup>

17 **VII. Update to Persimmon Creek’s Pricing and Performance Through 2022**

18 **Q: With 2022 now concluded, are you able to update the performance of**  
19 **Persimmon Creek?**

20 A: Yes. As reflected in Confidential Schedule JH-13, through the first four full  
21 calendar years of operation, Persimmon Creek has maintained a **\*\* [REDACTED] \*\***  
22 aggregate Net Capacity Factor, and that is broken out year by year in the table

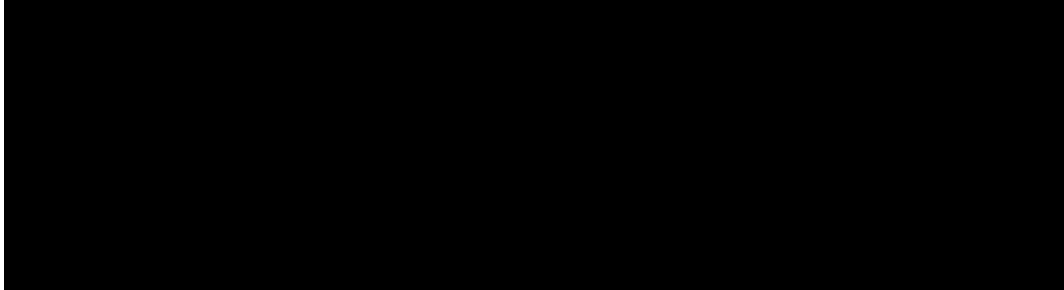
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<sup>19</sup> Hull Rebuttal, at 4.

<sup>20</sup> Won Rebuttal, at 3.

1 below. This performance continues the excellent history of ~50% NCF over the  
2 plant's life.

3 \*\*



4 \*\*

5 **Q: The final purchase price of Persimmon Creek is adjusted by several factors,**  
6 **including Production Tax Credits generated after \*\* [REDACTED] \*\*.**

7 **How has the purchase price been affected through the end of calendar year**  
8 **2022?**

9 A: As shown in Confidential Schedule JH-13, Persimmon Creek generated  
10 **\*\* [REDACTED] \*\*** MWhs since that date. At the 2022 PTC rate of \$26.00/MWh this  
11 would translate to a reduction in the purchase price of **\*\* [REDACTED] \*\***.

12 **Q: Please summarize your testimony and conclusions.**

13 A: Persimmon Creek offers the rare combination of least risk, lowest cost, and most  
14 certainty—all in a deal that benefits EMW customers substantially, as shown by the  
15 Change in Plan filing, building on the 2021 and 2022 IRPs, which identifies \$130  
16 million in overall NPVRR savings. Further, as a renewable resource, the addition  
17 is precisely the type of investment that the policy of the State of Missouri is trying  
18 to encourage through the PISA legislation. Persimmon Creek is a step of a multi-  
19 part plan that responsibly and thoughtfully adds customer-beneficial resources over  
20 time, rather than waiting until a shortfall of energy or capacity is absolutely  
21 imminent or has already occurred.



1           While environmental concerns were identified through the diligence of the  
2 project, it is important to note that Persimmon Creek is fully compliant with all  
3 environmental laws today, and these concerns were taken into consideration when  
4 the facility was originally sited. In fact, when looking at the totality of the diligence  
5 process, inclusive of those environmental concerns, the site was in the “high”  
6 category per the Company’s technical diligence provider.

7           This “high” ranking from a technical standpoint is further supported by the  
8 economic analysis performed throughout the evaluation; both pre- and post-IRA  
9 impacts. Utilizing the same “apples-to-apples” comparison throughout the LCOE  
10 evaluations, Persimmon Creek has the best relative, risk-adjusted ranking of all  
11 options, and is also sited in the best, lowest-cost and lowest-risk position within the  
12 SPP grid relative to EMW’s customers. The results of the LCOE evaluation have  
13 been reinforced by the performance of the plant during 2022.

14           The time to act is now. As Staff is aware, a contractual deadline exists for  
15 EMW customers to be able to benefit from this asset. Persimmon Creek is the right  
16 plant, at the right time, to satisfy the clear needs of EMW identified through the  
17 IRP process and re-supported by the Change in Plan filing. The Company asks the  
18 Commission to look at the facts and evidence presented in this case, and then to  
19 grant the request for the Operating CCN for Persimmon Creek.

20 **Q: Does that conclude your Surrebuttal Testimony?**

21 **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 ) Case No. EA-2022-0328  
Convenience and Necessity Authorizing It to )  
Operate, Manage, Maintain and Control an )  
Existing Wind Generation Facility in Oklahoma )  
)

**AFFIDAVIT OF JASON HUMPHREY**

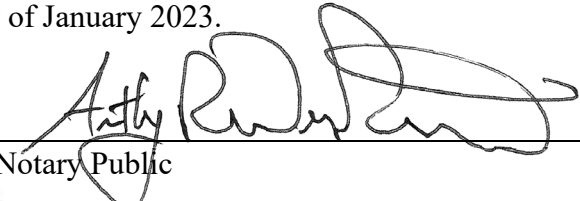
**STATE OF MISSOURI** )  
) ss  
**COUNTY OF JACKSON** )

Jason Humphrey, being first duly sworn on his oath, states:

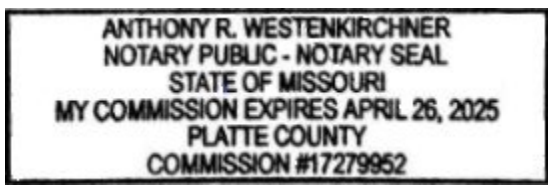
1. My name is Jason Humphrey and I am employed by Evergy Metro, Inc. as Sr Director Renewable & Assistant Treasurer - Renewables Development.
2. Attached hereto and made a part hereof for all purposes is my Surrebuttal Testimony on behalf of Evergy Missouri West consisting of twenty-three (23) pages, 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.

  
\_\_\_\_\_  
Jason Humphrey

Subscribed and sworn before me this 31<sup>st</sup> day of January 2023.

  
\_\_\_\_\_  
Notary Public

My commission expires: 4/26/2025



**SCHEDULE JH-13**

**CONTAINS CONFIDENTIAL  
INFORMATION  
NOT AVAILBLE TO THE PUBLIC.**

**ORIGINAL FILED UNDER SEAL.**