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	)	**File No. EA-2022-0328**

Initial Brief

COMES NOW, the Staff of the Missouri Public Service Commission ("Staff"), and for its *Initial Brief*, presents the following arguments on why Evergy Missouri West, Inc. d/b/a Evergy Missouri West ("Evergy Missouri West" or "EMW") should not be granted a certificate of convenience and necessity.

The issues the Commission must decide upon are as follows:

A. Does the evidence establish that granting an Operating Certificate of Convenience and Necessity ("CCN") to Evergy Missouri West, Inc. ("EMW") to own, operate, and maintain the 198.6 MW wind generation facility located in Woodward, Ellis and Dewey Counties in Oklahoma ("Persimmon Creek" or the "Project") is necessary or convenient for the public service, pursuant to Section 393.170.2-.3, RSMo, and 20 CSR 4240-20.045(2)-(3)?

1. Is there a need for EMW to operate Persimmon Creek?
2. Does EMW have the financial ability to operate Persimmon Creek?
3. Is EMW qualified to operate Persimmon Creek?
4. Is EMW's proposed operation of Persimmon Creek economically feasible?

5. Does EMW's proposed operation of Persimmon Creek promote the public interest?

B. If the Commission grants an Operating CCN for the Project, what conditions, if any, should the Commission impose on the CCN?

1. Should a production tax credit tracker be established?
2. Should the Commission order that EMW track revenues produced by Persimmon Creek for ratemaking purposes?

C. Should the Commission Order EMW to provide resource-specific economic analysis utilizing reasonable assumptions beyond the IRP results, LCOE estimates, and installed capacity costs in support of future CCN applications?

D. What, if any, additional project-specific analysis requirements should the Commission Order from EMW for future CCN requests?

E. Does the evidence establish that authorizing EMW under Section 393.190.1 to complete the asset transfer and merger described in the Application so that it may own and operate Persimmon Creek is not detrimental to the public interest?

Introduction

On August 18, 2022, EMW filed an application ("Application") that seeks approval of a certificate of convenience and necessity ("CCN") that authorizes EMW to operate, control, manage and maintain the Persimmon Creek Wind Farm located in Oklahoma ("Project" or "Asset"). Additionally, EMW requests the Commission grant the authority to complete the asset transfer and merger described in the Application. EMW

further asks the Commission find that the granting of the authority requested is required by the public convenience and necessity.

Persimmon Creek, which became commercially operational in August 2018, is located in parts of Woodward, Ellis, and Dewey Counties, Oklahoma near the town of Vici. Persimmon Creek consists of 80 wind turbine generators with a total capacity of 198.6 megawatts ("MW") The Asset includes an underground 34.5 kilo-volt ("kV") collection system, project substation, and a 3-mile 345 kV overhead transmission line. At the 345 kV Guthrie Switchyard, power is aggregated with another wind project and is then transmitted over another 11-mile 345 kV transmission line to the Woodward District substation, owned by Oklahoma Gas and Electric Co. The Woodward District substation is the Point of Interconnection ("POI") with the Southwest Power Pool ("SPP") transmission system.

The Commission has the power to grant a CCN whenever after due hearing it shall determine that such is necessary or convenient for the public service.[1] In determining whether granting a CCN is necessary or convenient for the public service, the Commission applies the Tartan factors.[2] The factors considered are: a) there must be a need for the service; b) the applicant must be qualified to provide the proposed service; c) the applicant must have the financial ability to provide the service; d) the applicant's proposal must be economically feasible; and e) the service must promote the public interest.[3]

[1] Section 393.170.3, RSMo.
[2] *Re Tartan Energy Company, L.C. d/b/a Southern Missouri Gas Company*, GA-94-127 (September 15, 1995).
[3] *Id.*

Staff recommends that the Commission reject Evergy Missouri West's application for a CCN.[4] Evergy Missouri West's application and the supporting testimony do not justify the Persimmon Creek wind project.[5] The Persimmon Creek project is likely a poor choice to resolve the alleged capacity need for Evergy Missouri West for a variety of reasons including location, resource type, and timing of expected generation.[6] Furthermore, Persimmon Creek is unlikely to be a good hedge against market energy costs.[7]

Staff has identified several flaws in Evergy Missouri West's analysis that EMW has relied upon to justify the project and therefore the results of Evergy Missouri West's analysis should be dismissed along with Evergy's application for the CCN.[8] All investments of a utility that go into the rate base charged to customers should be justified based upon the basis of ratepayer needs and the economics of the specific project.[9] Evergy Missouri West's application fails to show that this project will improve either the safety or reliability of its operations and the economic analysis provided in support is unreliable.[10] Instead of acting as a hedge in energy markets, Evergy's proposed project would instead shift risk of the project's underperformance onto captive ratepayers rather than being borne by an independent market participant, such as the current owner of the asset.[11]

The actual historical data has been reviewed by Staff, and utilized by Staff to

[4] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 5.
[5] *Id.*
[6] *Id.*
[7] *Id.*
[8] *Id.* at p. 6.
[9] *Id.*
[10] *Id.*
[11] *Id.*

update Evergy's flawed general analysis with specific information to provide a more accurate, and unfortunately much bleaker analysis on the true costs and benefits to ratepayers.[12] This project fails to meet the need threshold, as there is not a capacity need, and if there was such a need, the generation attributes and potential for heavy curtailments make this project unsuitable.[13] The capacity issues, as explained by Staff witness J Luebbert throughout the record, also significantly impact the economic benefits of the project, with EMW making unreasonably high capacity factor assumptions in 10 out of 16 years assumed in the analysis.[14] The significant negative pricing seen in the historical operation of the project make the economic benefits to customers unlikely to exceed the substantial costs that will be incurred through rates. The Project does not meet the economic feasibility threshold of the Tartan Criteria.[15] As the project will not cover its cost, not work as an effective hedge, and will substantially increase risk to ratepayers, this project is not in the public interest.[16] Most of what Evergy provided was generic data, as Staff witness Brad Fortson explained on the stand and in his testimony, to support a generic wind project, which became a self-fulfilling prophecy, due to Evergy's own choices and self-selected inputs.[17] Furthermore, upon receiving the specific data for Persimmon Creek, it further highlighted the flaws in both the specific and generic assumptions used for both the IRP modeling and the CCN case modeling, as noted in many of Staff witnesses' testimonies. [18]

[12] Tr. Vol. 3, p. 483, lines 2-16.
[13] *Id.* at p. 405, lines 17-19.
[14] *Id.* at p. 474, lines 13-16.
[15] *Id.* at p. 454, lines 23-25.
[16] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 50.
[17] Tr. Vol. 3, p. 412, 1-8.
[18] *Id.* at p. 477, lines 7-9 and 15-21.

This Project does not justify its cost.[19] But furthermore, allowing a monopoly utility to add generating assets to rate base untethered to ratepayer needs could result in substantial increases in rates and unnecessary risk for ratepayers, with the only upside being for shareholders and their ability to earn a return on these assets.[20] Demonstration of need can act as an upper limit to the amount of rate base additions of generating resources, which is necessary since Evergy Missouri West's shareholders do not carry the risk that the Persimmon Creek Wind project is ultimately uneconomic.[21] That risk is borne by ratepayers.[22]

The Southwest Power Pool (SPP) does not view EMW on a standalone basis for resource adequacy.[23] But even when viewing EMW on an individual basis, an alleged capacity need of 170 MWs in 2024 is present in EMW's integrated resource plan (IRP).[24] This project will only provide 20 MWs to fulfill the alleged need.[25] Evergy Missouri West, with or without this project, will still likely enter bilateral capacity contract in the near-term[26] and acquire two combustion turbines, each 237 MWs, in 2036, and 2040.[27]

This Project also fails to meet the hedging need EMW alleges will protect customers from volatility in market energy prices.[28] In order to maximize the mitigation of exposure to market energy costs, the energy production of a resource would need to be

[19] *Id.* at p. 407, lines 8-12.
[20] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 11-12.
[21] *Id.*
[22] *Id.*
[23] Tr. Vol. 1, p. 158, lines 16-20.
[24] Ex. 101, *Rebuttal Testimony of Brad Fortson*, p. 2-3, and p. 9.
[25] *Id.*
[26] Tr. Vol. 3, p. 426 line 22 through p. 427 line 8.
[27] Ex. 101, *Rebuttal Testimony of Brad Fortson*, p. 2-3, and p. 9.
[28] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 21.

highest when nodal market prices are high and ratepayer demand is high.[29] Persimmon Creek fails on both ends, as it would generate most at night, when prices are low, or even negative, and when ratepayer demand is also very low.[30]

Evergy's analysis fails to show this project will be economically feasible for ratepayers.[31] In Staff's analysis, it is unlikely that the revenues would cover the costs of the facility.[32] Locking ratepayers into paying for assets that are primarily justified by faulty economic analysis, which does not fulfill a clearly identified need, is an unnecessary risk to ratepayers and a benefit to Evergy Missouri West's shareholders.[33] Staff showed that Evergy's analysis significantly overstated generation, and understates how often negative prices will be incurred.[34]

Staff has proposed a tracker for the production tax credits, to ensure that if this Project is approved, as much harm to ratepayers can be avoided by capturing the upside of the production tax credits, to mitigate the downside of negative revenues and losses.[35]

If this Project is approved, Staff recommends the following conditions:

1. Staff recommends that the Commission order that the in-service criteria contained in attachment SEL-2 to Shawn Lange's rebuttal testimony are appropriate for use in a future case to determine whether the Persimmon Creek project is in-service. Staff prefers to have in-service criteria that the parties can agree to prior to the case(s) in which the plant is put into rate base, it is unclear whether that will happen in this case.[36]

[29] Tr. Vol. 3, p. 281, lines 8-9 and 13-16.
[30] Tr. Vol. 3, p. 421, lines 10-13.
[31] Tr. Vol. 3, p, 503, lines 1-4.
[32] *Id.*
[33] Tr. Vol. 3, p. 326, lines 5-17.
[34] See Ex. 104, *Rebuttal Testimony of J Luebbert*.
[35] Ex. 106, *Rebuttal Testimony of Matthew Young*, p. 2.
[36] Ex. 103, *Rebuttal testimony of Shawn Lange*.

2. ** [redacted] [37]**
3. Staff recommends that the Commission order Evergy West to track the PTCs accrued on its books so that they too are available for the Commission's consideration in Evergy West's next rate case.[38]
4. Staff recommends that the Commission hold Evergy Missouri West's ratepayers harmless if the costs of Persimmon Creek exceed the market revenues and ratepayer realized tax benefits.[39]

Argument

A. *Does the evidence establish that granting an Operating Certificate of Convenience and Necessity ("CCN") to Evergy Missouri West, Inc. ("EMW") to own, operate, and maintain the 198.6 MW wind generation facility located in Woodward, Ellis and Dewey Counties in Oklahoma ("Persimmon Creek" or the "Project") is necessary or convenient for the public service, pursuant to Section 393.170.2-.3, RSMo, and 20 CSR 4240-20.045(2)-(3)?*

1. Is there a need for EMW to operate Persimmon Creek?

No. The bases of need alleged by Evergy are claimed to be supported by EMW's IRP

[37] *Id.*
[38] Ex. 106, *Rebuttal Testimony of Matthew Young*, p. 2.
[39] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 58.

analysis, which it characterizes as an energy need, and a capacity need.[40] Staff therefore has approached this Application as the suitability of this Project to meet that need.[41] Staff views the Project as not supported the IRP in that Persimmon Creek is inconsistent with the generic wind resource studied in the June 2022 IRP annual update.[42] This hold true for the September 2022 updated preferred plan Persimmon Creek, as an input, not an output of the analysis.[43] As Staff witness Brad Fortson explains,

> So yeah, I think I've at least touched on in going back to the 11 alternative resource plans that I mentioned being compared in the 2022 IRP Annual Update. They all had a very similar amount of wind. In fact, I think my testimony states that of the 11, 10 had 150 MW of wind being included in 2024. So when 90 percent or 90 plus percent of your plans have the same input, it seems suspect that a model would generate something so similar and, in fact, I believe that is where Ms. Messamore speaks to after the RFP process that based off their knowledge then of Persimmon Creek they then baked into the IRP a certain set level of wind resources and that was the -- I believe in their IRP it showed 199, it's 198.6, but there was a certain level of generation from a certain resource inputted into the IRP.[44]

Since ten of the eleven alternative resource plans included 150 MW of renewable wind resources in 2024, thus the inclusion of a generic wind resource was essentially a foregone conclusion.[45]

The Office of Public Counsel (OPC) witness Lena Mantle also believes the IRP can be biased in support of predetermined outcomes.[46] Ms. Mantle also explained her concerns that the IRP modeling was not being used to optimize, which furthers makes them unsuitable as the only justification for a specific project.[47] EMW's own analysis

[40] Tr. Vol. 3, p. 419, lines 17-25.
[41] *Id.*
[42] Tr. Vol. 3, p. 401, lines 1-9.
[43] Tr. Vol. 3, p. 404, lines 10-21.
[44] *Id.*
[45] Ex. 101, *Rebuttal Testimony of Brad Fortson,* p. 9.
[46] Tr. Vol. 3. at p. 259, lines 18-23.
[47] *Id.* at p. 285, lines 1-2.

shows the issue with set inputs. In EMW witness Kayla Messamore's surrebuttal testimony, the supposed IRP selected levels of demand-side and supply-side resources are not included in EMW's demonstration of need.[48] EMW's exclusions of IRP modeled and selected levels of demand-side and supply-side resources exaggerate the capacity need EMW alleges.[49] In Ms. Messamore's supplemental testimony in this case, she states the adjustments to the first three years (through 2025) of the 2021 preferred resource plan made in the 2022 IRP annual update were made manually as opposed to using capacity expansion modeling.[50] On September 26, 2022, EMW submitted its 2022 updated preferred resource plan stating the plan was based on acquisition of Persimmon Creek.[51] Therefore, there is no integrated resource analysis that actually considers the characteristics of Persimmon Creek, rather there is an abandoned plan that included virtually certain selection of generic wind resources, and a new preferred plan that assumed acquisition of a wind resource named Persimmon Creek, but modeled without key characteristics.[52] Further, EMW has not updated its studies in light of changes in SPP capacity accreditation to find the prudent solution.[53] With predetermined IRP model inputs combined with generic assumptions, IRPs should not be the sole justification for a specific resource.[54]

Staff witness J Luebbert explains in is testimony why a demonstration of need is vital.

Generally speaking, it is imperative that any new project that is going to be paid

[48] Ex. 9, *Surrebuttal Testimony of Kayla Messamore*, p. 10.
[49] Tr. Vol. 3, p. 316, lines 21-25.
[50] Ex. 6, *Supplemental Direct Testimony of Kayla Messamore*, pg. 17.
[51] Ex. 101, *Rebuttal Testimony of Brad Fortson,* p. 2-3.
[52] *Id.*
[53] Ex. 100, *Rebuttal Testimony of Claire Eubanks*, p. 6.
[54] *Id.* at p. 258, lines 14-21.

> for by captive customers only be undertaken if there is an actual need of the asset in providing electric service to those customers. The demonstration of the need of a given project is important to consider for several key reasons including: monopoly status of Evergy Missouri West, policy implications, and determination that the project promotes the public interest. The identification of "need" also allows Staff to analyze the project on a comparative basis.[55]

Allowing a monopoly utility to add generating assets to rate base untethered to ratepayer needs could result in substantial increases in rates and unnecessary risk for ratepayers, and unwarranted profits for utility shareholders.[56] Demonstration of need can act as an upper limit to the amount of rate base additions of generating resources and the associated costs that ratepayers are expected to bear.[57] This upper limit is necessary since Evergy Missouri West's shareholders do not carry the risk that the Persimmon Creek Wind project is ultimately uneconomic.[58]

Mitigation of market energy costs is not equivalent to a physical need for energy production.[59] Reliance on mitigation of market energy costs to justify a given project magnifies the importance of the accuracy and reliability of the assumptions underlying the economic analysis of the project.[60] Due to Evergy Missouri West's participation in SPP, EMW will be responsible for market energy costs to serve the load of ratepayers regardless of the acquisition of Persimmon Creek.[61] EMW has testified in the past that being longer or short on generation will not impact reliability.[62] EMW also testified the market was fully capable of meeting all of customers' loads.[63] This testimony of EMW's

[55] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 8.
[56] Tr. Vol. 3, p. 271, lines 16-25.
[57] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 11-12.
[58] Tr. Vol. 3, p. 283, lines 7-11.
[59] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 12-13.
[60] *Id.*
[61] *Id.*
[62] Exhibit No. 107. *EF-2022-0155 Transcript Pages 256-261*.
[63] *Id.*

casts doubt on the claims it has an imminent need for energy or capacity that require a $245 million dollar purchase of an ineffective project.[64] The market is not the only method EMW can rely upon for meeting any alleged capacity shortfalls. Since 2015, Evergy Missouri West has had a capacity agreement with Evergy Missouri Metro.[65] ** [redacted] [66] [redacted] [67] [redacted] [68]**

EMW's claim that this Project will act as a hedge, and therefore is needed fails too. While it is possible for generating resources to act as a hedge against high market energy prices under the right circumstances, Persimmon Creek does not appear to be very well suited to do so for Evergy Missouri West.[69] Ideally, in order to maximize the mitigation of exposure to market energy costs, the energy production of a resource would be highest when nodal market prices are high and ratepayer demand is high.[70] As OPC witness Lena Mantle further explains,

> If you have a hundred million dollars to spend on plant, my opinion is it would be a much better use of the customers' money to do a dispatchable unit. that even if they added Persimmon Creek they still will be purchasing a large amount of their energy from SPP. That exposes the customers to the risk of the market. There's no exposure there to Evergy West but it's to the customers end up with the risk.[71]

[64] Tr. Vol. 3, p. 489, lines 16-23.
[65] Tr. Vol. 1, p. 158, lines 9-11.
[66] Tr. Vol. 2, p. 153, lines 6-12.
[67] *Id.*
[68] Ex. 108, *Capacity Update and Discussion Presentation Dated 12/29/2022*, p. 5.
[69] Tr. Vol. 3, p. 256, lines 7-22.
[70] Tr. Vol. 3, p. 283, lines 2-11.
[71] Tr. Vol. 3, p. 283, lines 2-5, and 7-11.

The production of Persimmon Creek is relatively low when the load of Evergy Missouri West's ratepayers is relatively high.[72] Market prices are generally elevated during periods of peak consumption in the summer months, in part, due to the increased demand for electricity for air-conditioning.[73] When Evergy Missouri West's demand and SPP real-time market prices are relatively high, the market cost to serve load follows.[74] Persimmon Creek is unlikely to provide a good hedge against high market costs to serve load due to the historically low energy production during the periods of highest demand and market prices.[75] Exposure to market energy costs to serve load is necessarily related to the ratepayer demand and the market prices that occur at a given point in time.[76] The mitigation of this exposure by a given supply-side resource is then also related to the timing of energy generated and market prices at the generation node.[77] Therefore, as stated earlier, the value of energy produced by supply-side resources also varies based upon time, location, and other variables.[78] Persimmon Creek has historically produced more energy during the overnight hours when Evergy Missouri West's load is relatively low.[79] Conversely, the energy production of Persimmon Creek is relatively low during the periods of time when Evergy Missouri West's load is relatively high.[80] As Staff's analysis is done on a particular project or resource basis, the premise that supply-side resources in general *could hypothetically* mitigate exposure to market energy costs is outweighed

[72] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 12-13.
[73] *Id.*
[74] *Id.*
[75] *Id.*
[76] *Id.*
[77] *Id.*
[78] *Id.*
[79] *Id.*
[80] *Id.*

by the fact that *this specific* supply-side resource **does not** mitigate exposure to market energy costs when Evergy Missouri West's demand and market prices are highest.[81] The Persimmon Creek wind project is not likely to be a reasonable hedge against market costs to serve load and Evergy Missouri West's supportive economic analysis is flawed and unreliable.[82]

2. Does EMW have the financial ability to operate Persimmon Creek?

Yes.[83] EMW has the financial ability to purchase, operate, manage, maintain, and control Persimmon Creek Wind Farm.[84]

3. *Is EMW qualified to operate Persimmon Creek?*

Yes, based on Evergy Missouri West being able to utilize expertise and knowledge from its affiliated jurisdictions, Staff concludes that Evergy Missouri West is qualified to own, operate, maintain, and otherwise control and manage the project.[85]

4. *Is EMW's proposed operation of Persimmon Creek economically feasible?*

No competent evidence has been provided that EMW's request to acquire and operate Persimmon Creek is economically feasible.[86] To evaluate the economics of the decision to acquire the Persimmon Creek Wind asset Evergy Missouri West primarily relied upon the results of the Company's IRP, the levelized cost of energy ("LCOE"), and the cost per kW of nameplate capacity. All three of these analyses are flawed because of unreasonable assumptions regarding:

A. Capacity

[81] *Id.* at p. 43-44.
[82] *Id.*
[83] Ex. 105, *Rebuttal Testimony of Seoungjoun Won*.
[84] *Id.*
[85] Ex. 102, *Rebuttal Testimony of Jordan T. Hull*.
[86] Tr. Vol. 3, p. 379, lines 13-15, 20-25.

B. Negative Pricing

C. Use of LCOE without considerations of other characteristics that add value to plant

A. Capacity Assumptions

EMW overestimates the capacity the Project will provide, which significantly impacts the economics of the Project. EMW's analysis relies upon an assumed wind capacity factor, which is demonstrably higher than the expected capacity factor of the Persimmon project.[87] It does not account for the lower accreditation metrics SPP will be utilizing for wind going forward.[88] It does not account for the drop in production once the PTCS expire in 2028.[89] Staff has evidence supporting its contention that the lack of PTCS will drive a dramatic drop in production ** [redacted][90] [redacted][91] [redacted] ** EMW's analysis does not provide competent support for the acquisition and operation of Persimmon Creek in that the IRP assumptions for a generic wind project are inconsistent with the operational characteristics of Persimmon Creek, and some assumptions are outright flawed.[92] Additionally, for the summer need EMW alleges it has, this Project is one of the least

[87] Tr. Vol. 1, p. 198, lines 9-12.
[88] Tr. Vol. 1, p.234, lines 1-15.
[89] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 12-13.
[90] Ex. 112C, EO-2022-0285 DR 0004.
[91] Tr. Vol. 2, p. 108, lines 9-13.
[92] Tr. Vol. 3, p. 273, lines 9-10.

efficient capacity resources to meet that need.[93]

Evergy's cost per kW of nameplate capacity analysis does not provide competent support for the acquisition and operation of Persimmon Creek.[94] Evergy's study of the cost per kW of installed capacity relies on a capacity value of the Persimmon Creek wind farm of $1,247/kW.[95] However, this does not account for the expected asset life, or the accredited capacity of the resource, as a small percentage of the nameplate capacity is expected to be accredited by SPP for resource adequacy purposes.[96] When accounting for the capacity accreditation assumptions and expected life, the capacity cost of the project increases.[97]

In conclusion, the reduction in capacity factor after the PTCs expire has a huge impact on economic feasibility. If EMW on the other hand does not reduce generation, due to the high level of negative prices, the negative revenues caused by the generation during negative LMPS will be a detriment to customers as explained below.[98]

B. Negative Pricing

EMW's analysis relies upon a set of market price scenarios for the value of energy generated at Persimmon Creek, however those pricing scenarios drastically underestimate the propensity for the negative LMPs at the Persimmon Creek SPP node.[99] Doing so ignores that every hour the Project generates during a period of negative LMPs costs the ratepayers money.[100] The Persimmon Creek SPP pricing node has historically

[93] Tr. Vol. 3, p. 465, lines 3-10.
[94] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 44-45.
[95] *Id.*
[96] *Id.*
[97] *Id.*
[98] Tr. Vol. 3, p. 494, line 21-24.
[99] Tr. Vol. 3, p.406, lines 4-6.
[100] Tr. Vol. 3, p. 460, lines 4-6.

realized negative pricing intervals substantially more frequently than the assumed "generic wind build node" utilized in Evergy Missouri West's IRP analysis that the Company relies upon in an attempt to justify the CCN for Persimmon Creek.[101] In fact, evidence shows that the number of negative pricing hours occurring at Persimmon Creek have increased year over year.[102] The IRP and CCN analysis also assumed perfect ratemaking, where the benefits of the production tax credit (PTC) immediately flow to ratepayers.[103] Therefore, EMW's analysis vastly overstates the value customers can expect to receive from the Project.[104] Staff's analysis showed that the historical revenues for this Project would not have, in any years since it has been operational, exceeded what its revenue requirement is.[105] Evergy's IRP analysis relied on unreasonable assumptions concerning generation and negative pricing, as it ignores that there is a price to inject generation when LMPs are negative.[106]

C. LCOE Analysis

Evergy's LCOE analysis does not provide competent support for the acquisition and operation of Persimmon Creek in that it relies on unreasonable assumptions. LCOE is acknowledged throughout the industry as not accounting for all factors, and thus should not be the sole metric for resource planning.[107] LCOE does not account for differences in the value of energy produced. LCOE does not account for the fact that the value a resource provides is dependent on the time and location of the facility's generation.[108]

[101] Tr. Vol. 3, p. 473, lines 18-23.
[102] *Id.*
[103] Tr. Vol. 3, p. 487, lines 12-25.
[104] *Id.*
[105] Tr. Vol. 3, p. 468, lines 2-9.
[106] Tr. Vol. 2, p. 105, lines 19-23.
[107] Tr. Vol. 3, p. 436, lines 16-20.
[108] Tr. Vol. 3, p. 435, lines 10-13.

Since SPP LMPs vary by time and location, the subsequent market revenues also vary by those same factors.[109] This can also mean a facility that generates infrequently could have high margins making it more profitable.[110] So total production is not necessarily the only variable that should be examined when evaluating a resource.[111] Furthermore, LCOE does not consider the reliability of a resource.[112] Dispatchability is another factor that LCOE ignores.[113] Dispatchability can be a primary driver of economic success in the market, as it allows a utility to pursue market signals to benefit from high pricing.[114] EMW's LCOE also does not account for the costs of the firm transmission study and additional transmission upgrades potentially required.[115] Evergy Missouri West's LCOE estimations do not account for these variables, but the market revenues covering the LCOE and fixed costs from any project will ultimately decide the economic outcome of the decision from the ratepayers' perspective.[116]

Reliance on mitigation of market energy costs to justify a given project's economic feasibility magnifies the importance of the accuracy and reliability of the assumptions underlying the economic analysis of the project.[117] Evergy Missouri West LCOE analysis relied on overstated assumed production from Persimmon Creek.[118] Evergy assumed consistent energy production throughout the asset life to evaluate the LCOE of multiple

[109] *Id.*
[110] *Id.* at lines 16-25.
[111] *Id.*
[112] *Id.* at p. 436, lines 3-5.
[113] *Id.* at lines 6-14.
[114] *Id.*
[115] Tr. Vol. 3, p. 451, lines 4-17.St
[116] Tr. Vol. 3, p. 437, lines 1-5.
[117] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 43-44.
[118] *Id.* at p. 26-27.

projects associated with the response to the Company's request for proposals.[119] However, Persimmon Creek is an asset that has already been operating more than four years and the eligibility window for PTCs is relatively shorter than several other projects reviewed meaning that the actual capacity factor for Persimmon Creek is likely to reduce much sooner than other projects.[120]

Economic feasibility is a very important Tartan Factor to meet. When a project is justified by economic benefits, as EMW purports this Project will bring,[121] it is important to look at the actual performance and economics of the Project. Simply put, a project should be able to provide benefits greater than its total costs to be economically feasible for ratepayers.[122] EMW urges the Commission not to look at historic performance.[123] This should be a red flag to all evaluating because past performance is the most solid evidence parties currently have. EMW also has a historical performance issue. As OPC has brought up numerous times in a multitude of dockets, EMW has a history of claiming projects will be a great economic benefit, and those projects ultimately turn out to be to ratepayers' detriment.[124] EMW's pattern of overly optimistic projections on benefits and high market prices is relevant here.[125] It casts real doubt on EMW's ability to accurately estimate benefits and risks of projects, which is a significant concern when ratepayers are at risk of losing $245 million plus on this Project.[126] It also shows why Staff's analysis

[119] *Id.* at p. 42-43.
[120] *Id.*
[121] Tr. Vol. 1, p. 182, lines 7-14.
[122] Tr. Vol. 3, p. 278, lines 17-20.
[123] Tr. Vol. 1, p. 191, lines 20-21.
[124] Tr. Vol. 3, p. 261.
[125] *Id.* p. 262.
[126] *Id.* at p. 328.

in this case is more reliable than EMW's.[127] As opposed to EMW's generic analysis haphazardly mismashed with specific Project information, Staff did a specific Persimmon Creek analysis, as Staff witness J Luebbert walks through in his surrebuttal testimony, beginning on page 41.[128] These analyses are also included in Ex. 116, Mr. Luebbert's workpapers.

Based on Staff's review of plant operational data, Staff's knowledge of environmental concerns, and Staff's knowledge of EMW's integrated resource planning process, Staff cannot conclude that acquisition and operation of Persimmon Creek would be an improvement justifying its cost. It is unlikely that the Project is an economically efficient means of adding accredited capacity or hedging market energy costs.

5. Does EMW's proposed operation of Persimmon Creek promote the public interest?

No. As proposed by Evergy, nearly all risks for the failure of the project to perform as assumed fall on ratepayers, and Evergy is insulated from not only those risks, but also any risk or cost associated with regulatory lag.[129] Evergy's analysis of the economics of the Project are flawed, and deciding to move forward with the acquisition based upon the results of such analysis introduces unnecessary risk for ratepayers.[130] Evergy Missouri West's primary justification for this project is to hedge market energy-costs with Persimmon Creek revenues.[131] Thus, it is imperative to review the revenues and costs to determine if it will be a good hedge since there is no physical need for this

[127] Tr. Vol. 3, p. 483, lines 2-16.

[129] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 50.
[130] *Id.* at p. 53.
[131] *Id.* at p. 21.

acquisition.[132] Evergy Missouri West's reliance on the installed cost of capacity is not a particularly useful metric when considering options to meet potential resource adequacy capacity needs.[133] The installed cost of capacity does not account for the expected asset life or capacity accreditation of SPP.[134]

The Inflation Reduction Act of 2022 ("IRA") potentially magnifies the capacity factor assumption flaw issue because additional resources are eligible for full PTC value over a longer period of time.[135] The IRA also includes modifications to the tax code related to solar resources, namely the availability of PTCs for solar resources.[136] The changes that have and will continue to occur as a result of the IRA, in addition to the various assumption flaws identified by Staff, warrant additional analysis by Evergy Missouri West prior to building or acquiring another generating resource.[137] The acquisition of the Project is unlikely to result in the load of Evergy Missouri West being served by cleaner renewable resources or lead to a reduction in the dispatch of Evergy Missouri West's existing fossil-fuel resources, all else being equal.[138] Evergy Missouri West and Persimmon Creek both currently participate in SPP. The electricity needed to serve the load of Evergy Missouri West's ratepayers is purchased through SPP markets regardless of the generation resource mix owned.[139] Since Persimmon Creek is already operational, the change in ownership will have very little, if any, effect on the generation fleet serving the SPP footprint and Evergy Missouri West's customers, and if Evergy Missouri West is granted

[132] *Id.*
[133] *Id.* at p. 44.
[134] *Id.*
[135] *Id*. at p. 43.
[136] *Id.*
[137] *Id.*
[138] *Id.* at p. 14.
[139] *Id.*

the CCN for the Persimmon Creek wind project Evergy Missouri West ratepayers will not be served by cleaner generating resources.[140]

It is Staff's conclusion based on the evidence and information provided that ratepayers would be better off without the asset.[141]

B. *If the Commission grants an Operating CCN for the Project, what conditions, if any, should the Commission impose on the CCN?*

Staff recommends that the Commission reject Evergy Missouri West's application for a CCN, and recommends that the Commission not make a decision on the determination of decisional prudence of the Persimmon Creek Wind project. If it approves Evergy Missouri West's request, and recommends the following conditions if the CCN is granted:[142]

Staff recommends that the Commission order that the in-service criteria contained in Schedule SEL-r2 attached to Shawn Lange's rebuttal testimony are appropriate for use in a future case to determine whether the Persimmon Creek project is in-service. This condition is appropriate and necessary as Section 393.135, RSMo. 2000 provides that any charge incurred by an electrical corporation before the asset is fully operational and used for service is prohibited.

** [redacted]

[redacted]

[redacted]

[redacted]

[140] *Id.* at p. 22.
[141] Tr. Vol. 3, p. 501, lines 16-19.
[142] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 58.

[redacted] [143] [redacted] [144] This condition is necessary due to ** [redacted] [145] [redacted] [146] **

Staff believes this recommendation is highly appropriate given the risks inherent at this site.[147] The risks of wildlife related curtailment are high, and the consequences can be extreme for wind farms.[148] ** [redacted] [149] [redacted] [150] [redacted] [151] ** EMW stated that no monitoring

[143] Ex. 103, *Rebuttal testimony of Shawn Lange*, p. 3, lines 4-14.
[144] *Id.*
[145] *Id.*at p. 4, lines 22-24.
[146] *Id.*at p. 5, lines 11-13.
[147] Tr. Vol. 1, p. 221, lines 1-13.
[148] *Id.* p. 230, lines 8-10.
[149] Tr. Vol. 3, p. 358, lines 16-19.
[150] Tr. Vol. 4, p. 365, lines 1-16.
[151] *Id.* at p. 366, lines, 11-15.

had been done since November 2019,[152] for a site that began operating in 2018. As curtailment could essentially render the Project useless during its peak generating time,[153]and can lead to severe consequences and additional expenses, none of which were contemplated in EMW's analysis,[154] Staff's safeguards are an appropriate condition to order.

Staff also recommends that the Commission hold Evergy Missouri West's ratepayers harmless if the costs of Persimmon Creek exceed the market revenues and ratepayer realized benefits.[155] Staff believes this condition is appropriate to provide some level of safeguard for ratepayers and adequately share risk between ratepayers and EMW.[156] Sharing mechanisms have been ordered in other CCN cases, are appropriate here as well.[157] In particular, the sharing mechanism between shareholders and ratepayers was approved in EA-2019-0010,[158] a wind farm project premised on economic benefits, and a case that EMW cited favorably to through the hearing and its testimony.[159]

C. Should a production tax credit tracker be established?

Yes. EMW is protected from regulatory lag by the Missouri statutes authorizing Plant in Service Accounting (PISA) and a property tax tracker.[160] The deferral of cost increases under these mechanisms more than offsets the adverse regulatory lag EMW would

[152] Tr. Vol. 1, p. 127, lines 20-21.
[153] *Id.* at p. 219, lines 7-9.
[154] *Id.* at p. 218, lines 14-18 and 23-25.
[155] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 58.
[156] *Id.*
[157] Tr. Vol. 3, p. 409, lines 1-7.
[158] *In the Matter of the Application of The Empire District Electric Company for Certificates of Convenience and Necessity Related to Wind Generation Facilities*, **Report and Order**, issued June 19, 2019.
[159] Tr. Vol. 1, p. 66, lines 14-16, Ex. 1, *Direct Testimony of Matthew W. Dority*, and Ex. 7, *Surrebuttal Testimony of Matthew W. Dority*.
[160] Ex. 106, *Rebuttal Testimony of Matthew Young*, p. 2.

experience even without consideration of Production Tax Credits (PTC).[161] ** [redacted][162] [redacted][163] [redacted][164] [redacted][165] [redacted][166] [redacted][167]** EMW's positive regulatory lag outweighs the negative by almost double, even without considering the PTC values.[168] Adding in the PTCs increases the magnitude of EMW's windfall by 4-5 times.[169] That could be 90 million dollars that ratepayers never see flow to them to offset the 245 million purchase price.[170] Without a tracker, customers may only receive two years of the PTCs that EMW has centered as the bedrock of the benefits of this Project.[171] EMW's own models include the PTCs flowing immediately to customers;[172] therefore EMW should be prepared to pass those PTCs to customers immediately, since that was what made the Project economically supported for shareholders and ratepayers in its view. If the Commission approves the purchase of Persimmon Creek, deferring PTCs for ratemaking

[161] *Id.*
[162] Ex. 112C, *Data Request 0055.*
[163] *Id.*
[164] Ex. 110C, *Data Request 0054*.
[165] Tr. Vol. 2, p. 101, lines 11-18.
[166] *Id.* at p. 103, lines 4-5.
[167] Ex. 114C, *Data Request 23.1* (6 million in operation and maintenance expense) and Ex. 110C, *Data Request 0054* (2.3 million in uncaptured depreciation expense).
[168] Tr. Vol. 3, p. 372, lines 1-8.
[169] *Id.*
[170] *Id.* at p. 498, lines 2-4.
[171] *Id.* at p. 314, lines 8-14.
[172] Tr. Vol. 3, p. 487, lines 12-22.

consideration in EMW's next rate case is an equitable approach to balance the deferral of costs and the deferral of benefits.

D. *Should the Commission order that EMW track revenues produced by Persimmon Creek for ratemaking purposes?*

Staff believes that tracking this information can be useful as this type of project going into service in between rate cases without prior FAC tariff language is the first of its kind.[173]

E. *Should the Commission Order EMW to provide resource-specific economic analysis utilizing reasonable assumptions beyond the IRP results, LCOE estimates, and installed capacity costs in support of future CCN applications?*

Yes. Staff recommends that the Commission order Evergy Missouri West to provide resource specific economic analysis utilizing reasonable assumptions beyond the IRP results, LCOE estimates, and installed capacity costs in support of future CCN applications.[174] The analysis should address concerns including but not limited to, differences in energy production and market prices based upon time and location as well as expected changes to capacity factors after PTC eligibility.[175] References to generic IRP analysis, LCOE estimates, and installed capacity costs are not sufficient to support a CCN application for assets that cost in excess of $100 million.[176]

F. *What, if any, additional project-specific analysis requirements should the Commission Order from EMW for future CCN requests?*

The analysis should include but be not limited to, an analysis of the range of probable

[173] *Id.* at p. 411, lines 11-16.
[174] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 50-51.
[175] *Id.*
[176] *Id.*

revenue requirement increases and offsets over the life of the asset, including but not limited to offsets to revenue requirement such as tax credits, market energy value, market capacity value, and renewable energy credits, and cost variables such as production degradation, and the impact of any tax equity arrangements, if applicable.[177] The analysis should provide sufficient support and documentation regarding the economics of the project to justify the specific project for which a CCN is requested, as opposed to generic assumptions as may be used for IRP purposes.[178] The analyses should also include comparisons of alternative resources that could be utilized to fulfill specified ratepayer needs, with each need to be fulfilled specifically identified.[179]

G. *Does the evidence establish that authorizing EMW under Section 393.190.1 to complete the asset transfer and merger described in the Application so that it may own and operate Persimmon Creek is not detrimental to the public interest?*

As explained in detail above, the Project is not needed, economically feasible, or in the public interest. Because the Project fails the Tartan Criteria, EMW should not be authorized to complete the asset transfer and merger.

Conclusion

In summary, Staff provides the following brief conclusions, supported by Staff's analysis and the evidence, that support rejection of this Application.

- The historical revenue of Persimmon Creek indicates that the market revenues are unlikely to exceed the revenue requirement associated with the project.[180] This

[177] *Id.*
[178] *Id.*
[179] *Id.*
[180] Ex. 104, *Rebuttal Testimony of J Luebbert*, p. 50.

means that if the asset is included in rates, ratepayers are expected to pay more for the asset through rates than the offsetting market revenues from Persimmon Creek.[181]

- The SPP node for Persimmon Creek has experienced increased hours of negative market prices since 2018, which will result in negative market revenue, or added costs, if the Asset generates in those hours.[182]
- If the alleged need is to meet SPP resource adequacy needs of Evergy Missouri West, Persimmon Creek is a poor solution on a dollar per kW-accredited basis.[183]
- Persimmon Creek is not likely to be a good hedge against exposure to market energy costs.[184] Energy production from Persimmon Creek is relatively low when the load of Evergy Missouri West's ratepayers is relatively high.[185] Market prices are generally elevated during periods of peak consumption in the summer months, in part, due to the increased demand for electricity for air-conditioning.[186] Persimmon Creek is unlikely to take advantage of those evaluated market prices by producing energy outside of those peak consumption time periods, as well as the potential for curtailment during the summer months.[187]
- Evergy Missouri West's IRP analysis drastically underestimates the propensity for the negative locational marginal prices (LMP) at the Persimmon Creek SPP node.[188] This is exacerbated by the fact Evergy Missouri West's utilization of the

[181] *Id.*
[182] *Id.*
[183] *Id.*
[184] *Id.*
[185] *Id.*
[186] *Id.*
[187] *Id.*
[188] *Id.* at p. 53.

capacity factor in the IRP and this CCN case's levelized cost of energy (LCOE) analyses do not take into account the fact that after the asset is no longer Production Tax Credit eligible, the asset should no longer be generating during periods of negative pricing.[189]

If the Commission does approve this Project, it should only do so upon requirement of Staff's conditions, mostly essentially the PTC tracker and some risk sharing or hold harmless provision to protect ratepayers from economic harm from known risks of negative pricing and wildlife curtailment potential.

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies by her signature below that on March 9, 2023, she filed the above document in the EFIS file of the Missouri Public Service Commission.

/s/ Nicole Mers

[189] *Id.* at p. 36-39.