Exhibit No.:

Issue: Generation Development and

Portfolio Transition

Witness: Jason Humphrey Type of Exhibit: Direct Testimony
Sponsoring Party: Evergy Missouri West
Case No.: EA-2024-0292

Date Testimony Prepared: October 25, 2024

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EA-2024-0292

DIRECT TESTIMONY

OF

JASON HUMPHREY

ON BEHALF OF

EVERGY MISSOURI WEST

Kansas City, Missouri October 2024

DIRECT TESTIMONY

OF

JASON HUMPHREY

Case No. EA-2024-0292

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 and 818 S. Kansas Ave, Topeka, Kansas 66612.
4	Q:	By whom and in what capacity are you employed?
5	A:	I am employed by Evergy Kansas Central, Inc., and serve as Vice President
6		Development for Evergy Missouri West, Inc. d/b/a Evergy Missouri West ("Evergy
7		Missouri West"), Evergy Metro, Inc. d/b/a as Evergy Missouri Metro ("Evergy
8		Missouri Metro"), Evergy Metro, Inc. d/b/a Evergy Kansas Metro ("Evergy Kansas
9		Metro"), and Evergy Kansas Central, Inc. and Evergy Kansas South, Inc.,
10		collectively d/b/a as Evergy Kansas Central ("Evergy Kansas Central") the
11		operating utilities of Evergy, Inc. ("Evergy").
12	Q:	Who are you testifying for?
13	A:	I am testifying on behalf of Evergy Missouri West ("EMW" or "Company").
14	Q:	What are your responsibilities?
15	A:	My responsibilities include the acquisition and construction of generation assets,
16		both renewable and conventional, for Evergy Missouri West and the other Evergy
17		operating utilities. This includes the preparation and evaluation of requests for
18		proposal, negotiation of contracts, monitoring of asset construction, and eventual
19		testing and commissioning ahead of commercial operation of the assets at which

point they are transferred to our generation operations team under Evergy's Vice
 President of Generation.

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

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A:

I graduated magna cum laude from the Kansas State University in May 2008 with a Bachelor of Science degree in Mechanical Engineering with a Nuclear Engineering option. I also received a Master of Business Administration degree with honors from Baker University in May 2017. I joined Evergy Kansas Central as a Power Plant Engineer in June 2008. I was later named Supervisor, Electrical Maintenance in March 2011, and Plant Manager, Emporia Energy Center in May 2012. In May 2013 I was named Director of Natural Gas Fired Generation which oversaw Evergy Kansas Central's natural gas and oil fired powerplant operations. I later served as Director of Performance Excellence in August 2015 and became Director of Integration Success upon the formation of Evergy in June 2018. In May 2020 I was named Senior Director, Finance and in December 2020 I was named Assistant Treasurer. In September 2021 the position of Senior Director of Renewables was added to my responsibilities. In January of 2023 I was promoted to Vice President, Development & Assistant Treasurer. In October 2023 the title of Assistant Treasurer was removed from my responsibilities to focus my scope of responsibilities on the significant amount of generation development in our Integrated Resource Plans over the next decade plus.

1	Q:	Have you	previously	testified in	n a p	roceeding	at the	Missouri	Public	Service
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Commission ("Commission" or "PSC") or before any other utility regulatory

3 agency?

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- 4 A: Yes. I have provided testimony in support of Evergy Missouri West's Winter Storm
- 5 Uri securitization petition as well as the Certificate of Convenience and Necessity
- 6 ("CCN") in support of the acquisition of Persimmon Creek wind farm. I have also
- 7 submitted testimony regarding Nuclear Decommissioning Trust costs and
- 8 investment requirements regarding the Wolf Creek Nuclear Generating Station to
- 9 both this Commission and the Kansas Corporation Commission. I have also
- submitted and prepared rate case testimony in both states.

11 Q: What is the purpose of your direct testimony?

- 12 A: The purpose of my direct testimony is to:
- Provide additional context for the CCN application related to Evergy
- Missouri West's portfolio transition.
- Explain the linkage between the Development team and resources identified
- in the Integrated Resource Plan ("IRP").
- 17 Q: The Company submitted a new Preferred Resource Plan as part of its
- 18 Triennial Integrated Resource Plan ("IRP") on April 1, 2024, which reflects
- 19 the Company's need to add generating resources to its portfolio, including
- solar, over the 20-year horizon. Why was that Preferred Resource Plan
- 21 selected?
- 22 A: In developing the 2024 IRP Preferred Plan, the Company utilized a robust approach
- to analyzing different planning scenarios and input assumptions. EMW focused on

balancing its need for energy, capacity, and dispatchability to ensure a diversification of resource generation assets in the Company's portfolio. This is described in more detail by Company witness VandeVelde and demonstrated in Table 1 below that shows EMW's Preferred Plan. After analyzing a multitude of resource generation asset combinations, the Preferred Plan determined that EMW should add wind, solar, thermal, and demand side management ("DSM") throughout the next 20 years.

Solar energy, such as the Sunflower Sky and Foxtrot projects (collectively the "Projects"), are important assets as they help to prepare for potential environmental regulations and incorporate fuel-free, on-peak, carbon-free renewable resources into EMW's portfolio of predominately wind and thermal resources today.

Table 1: Evergy Metro West Preferred Plan

Year	Wind (MW)	Solar (MW)	Battery (MW)	Thermal (MW)	Capacity Only (Summer MW)	DSM (Summer MW)	Retirements (MW)	
2024	0	0	0	143	0	91	0	
2025	0	0	0	0	0	140	0	
2026	0	0	0	0	28	180	0	
2027	0	150	0	0	0	211	0	
2028	0	0	0	0	0	225	0	
2029	0	0	0	325	0	240	0	
2030	0	0	0	415	0	254	0	
2031	150	0	0	0	0	268	212	
2032	150	0	0	0	0	283	0	
2033	150	0	0	0	0	295	0	
2034	150	0	0	0	0	312	0	
2035	0	0	0	0	0	325	0	
2036	0	0	0	0	0	338	0	
2037	0	0	0	0	0	352	0	
2038	0	0	0	0	0	362	0	
2039	0	0	0	0	0	377	0	
2040	0	0	0	0	0	388	187	
2041	150	0	0	0	0	399	0	
2042	0	150	0	0	0	408	0	
2043	0	0	0	0	0	417	0	

In fact, the Company has begun to add to its resource generation asset portfolio with the acquisition of a 22% interest in the combined-cycle natural gas-fired Dogwood Energy Center ("Dogwood") earlier in 2024. The Projects identified in this CCN represent the next step in EMW's IRP Preferred Plan, which includes approximately 150 megawatts of solar energy before the summer 2027 season.

1	Q:	Can you d	lescribe the	e overall	philosoph	y that	Evergy	Missouri	West is	trying

to achieve when it references its Preferred Resource Plan and the Responsible

Portfolio Transition?

Q:

A:

A:

Yes. EMW recognizes that the future is inherently uncertain, but the Company's 2024 IRP helps to address that uncertainty by providing a Preferred Plan which represents an efficient mix of generation assets EMW can utilize to meet the demands of customers over an uncertain future. Instead of going "all-in" on a specific asset type or never acknowledging the retirement of aged and carbon dioxide ("CO2")-heavy assets, the plan provides energy and capacity in varied forms including combined and simple-cycle natural gas generation, wind, demand-side management ("DSM"), and solar. This plan takes a "some of all" approach which allows EMW to satisfy the SPP's resource adequacy requirements, through a diversified portfolio of resource supply side and demand side assets.

Does the Company believe a sustained and well-planned transition to new energy resources is more appropriate and better for customers than adding new generation only at the point in time when it needs capacity to meet a planning reserve margin?

Yes. Thoughtful, well-planned transitions are of critical importance for EMW's customers. While it is nearly impossible to perfectly time resource additions, there are important steps that EMW can take to ensure a balanced approach of risk and cost. This balance is intended to represent the best overall value to EMW customers reflected through the lowest Net Present Value of the Revenue Requirements ("NPVRR").

One of the first key assumptions is that EMW must follow a conservative financial approach to its IRP process. The Company will not sacrifice the investment grade credit quality of the utility, which requires EMW to take a paced and methodical approach to investment that gives the utilities time to plan and to select assets that it believes will serve the customers well over time. Maintaining the investment grade profile for EMW keeps debt and equity costs low, which minimizes the financing costs of the plan, and ultimately the rates that EMW customers experience over time.

Q:

A:

The second critical pillar in this approach is to select the most ideal resource generation asset after EMW evaluates numerous responses to its request for proposals ("RFP") and negotiation processes. As described in the testimony of John Carlson, Evergy issued an All-Source RFP in 2023 with best and final bids due later that year. Both Sunflower Sky and Foxtrot were selected from that RFP and the Evergy Development team has negotiated two distinct commercial deals that allows EMW customers to balance risk and cost.

The IRP identified significant supply-side investment across all jurisdictions including EMW. How is EMW preparing for this transition?

Evergy's customers will be in the best position if the Company takes a careful, considered approach to developing new supply-side generation resources. In light of this need to diligently and systematically invest in new generation, Evergy has formed a development division which will be focused on bringing new supply side resources into the portfolios of the Evergy operating utilities including Evergy Missouri West. The expertise within the team will focus on the commercial,

technical, and construction skills, knowledge, and ability needed to bring new power plants online.

Q:

A:

We do not anticipate that a "one-size fits all" approach will be appropriate for every project. We anticipate build-transfers, asset-sales, self-development, and other forms of bringing these resources to fruition will all be needed. Evergy has been gaining experience in the self-development of solar resources through Evergy Energy Partners, Evergy Energy Solutions and the Hawthorn Solar facility over the last several years. The experience gained in those projects allows us to look at a particular need identified through the IRP and evaluate different projects that could be pursued for EMW.

Will solar resources be the only types of new generation that Missouri West pursues?

No, in fact, as mentioned previously in my testimony and addressed with Table 1, natural gas was the first form of generation pursued by Missouri West. Earlier in 2024 we closed on a transaction for 22% of Dogwood Energy Center, a combined-cycle, natural gas power plant. There are additional plans to build high-efficiency and high-flexibility combined and simple cycle natural gas generation as well. It is anticipated that Construction Certificates of Convenience and Necessity cases will be filed for natural gas plants for Missouri West in the near future.¹

¹ See Amended Notice of Intended Case Filing filed on October 9, 2024, in Case No. EA-2025-0075.

1	Q:	What is driving	the	need	to	build	now?	Why	not	just	wait	for	more
2		certainty?											

Q:

A:

A:

Evergy Missouri West, and electric utilities as a whole are acutely seeing the impacts of increased demand and increased reserve margin requirements. This combination is a call to action for utilities, particularly ones such as Evergy Missouri West to bring energy and capacity resources to bear for their customers. While the ultimate build plan must be balanced across many stakeholders and goals, the overwhelming conclusion is that we are in a build phase and the time to start is now. While some may argue the Company should have started yesterday and others may argue to wait for tomorrow, the reality is the best time to start is now while EMW has time to take a thoughtful, measured, and planned approach. The alternative is a fully reactionary approach where costs, thoughtfulness, and the availability of attractive projects may all be unknowns. This risk is especially felt when siting projects is difficult, when the lead times for critical equipment is long, and interconnection timelines are lengthy.

Therefore, when there are assets such as Foxtrot and Sunflower Sky that represent good investments for Missouri West to make in a technology that provides both fuel free energy and on-peak capacity, it is best for the company to act and follow its Preferred Plan.

You mentioned that Foxtrot and Sunflower Sky are two distinct commercial deals. How does that structure benefit Evergy Missouri West?

Foxtrot is a traditional build-transfer, or build-own-transfer project, where a developer is responsible for the entire project delivery from very early siting and real-estate stage through the Engineering, Procurement, and Construction ("EPC") portion of the project and finally the final commissioning. This fully bundled approach places much of the risk of project execution on a third party, in this case the project developer Invenergy. In exchange for that assumption of risk, the developer charges more upfront cost for the project.

Q:

A:

Sunflower Sky on the other hand, is a pre-notification to proceed ("NTP"), development asset sale. In this case, the early-stage siting and permitting of the project has been handled by others, but EMW will directly contract for the major equipment and the EPC and commissioning contract. While this structure puts slightly more risk on the Company, the potential benefit is reduced cost and greater control over the final specifications of the plant.

By satisfying the 150 MW of solar identified in the IRP with both approaches, Evergy Missouri West is able take an approach that balances risk with cost while increasing EMW's intelligence about both contracting methods going forward.

As you contemplate the various reasons that led the Company to select the 2024 Preferred Resource Plan, are there additional factors that indicate that an incorporation of renewable generation sources is in the best interest of Evergy Missouri West's Customers?

Yes. The Preferred Plan represents the most robust supply-side mix against an inherently uncertain future. That plan shows the value of the energy and capacity from solar through the net present value of the revenue requirement of that plan versus others. As evidenced by the testimony of Cody VandeVelde, the addition of

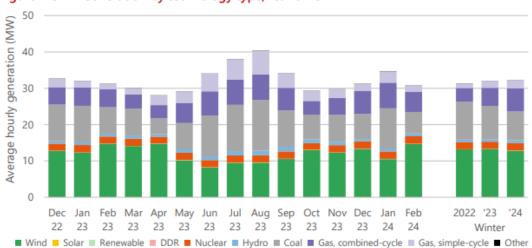
solar was shown to be a robust resource addition for Missouri West across many different futures and when that potential resource was taken away, a wind resource was added in the very next year at a higher cost to the plan.

Additionally, there are three reasons that EMW benefits from the incorporation of renewable generation beyond the quantitative factors contained within the 2024 Integrated Resource Plan. These reasons include growth in the demand for energy and capacity, fuel price and cost volatility, and greenhouse gas restriction rules, as identified in Greenhouse Gas Standards and Guidelines for Fossil Fuel-Fired Power Plants published in April of 2024. EMW and the utility industry in general are experiencing growth that has not been seen for several decades, both for capacity and energy. Driven by data center demand, onshoring of advanced manufacturing, and electrification of commercial and industrial sectors, many of the Company's potential customers' economic development plans prefer, if not outright demand, green energy. By having these Projects early in the planning horizon and available for programs, such as those described in the testimony of Company witness Kimberly Winslow, EMW keeps itself "open for business" for economic development potential.

Since Winter Storm Uri, we have continued to see significant volatility of natural gas fuel. While natural gas will certainly be part of the overall portfolio transition for EMW, both in the near and long term, it is important to add resources that are not correlated with the price of natural gas to the Company's portfolio. Solar is an ideal resource to add as it is relatively peak correlated, provides significant summer capacity benefits, and is under-represented in the SPP today.

This allows solar generation to represent a hedge against the volatility in the natural gas market, particularly against high-cost, summer generation.

Figure 1²
Figure 2-3 Generation by technology type, real-time



Finally, in April of this year, the Environmental Protection Agency ("EPA") published standards for power plant emissions of CO2. The rules require the use of low carbon generation and carbon capture and sequestration/storage ("CCS") to control the output of CO2 from the utility sector. While various legal challenges to the rule are underway, the final rule closely aligns to the high carbon restriction scenario run in our IRP. In order to comply with the severe carbon restrictions required by this scenario, carbon-free resources, particularly those installed and ready to produce carbon-free energy and capacity early in the asset's life, are especially valuable as the courts determine which parts of the rule remain in law.

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² https://www.spp.org/documents/71500/spp%20mmu%20qsom%20winter%202024.pdf

1 Q: How do the Foxtrot and Sunflower Sky solar projects fit into the responsible portfolio transition strategy?

Q:

A:

A:

As identified in EMW's 2024 IRP, approximately 150 MW of solar is needed by before the summer 2027 season. In order to meet this need, two projects from the 2023 Evergy All-Source RFP were selected. Foxtrot provides approximately 100 MW of alternating current capacity ("MWac"), while Sunflower Sky provides approximately 65 MWac. Company witness Carlson describes this process in detail.

Overall, these projects represent the second step of generation addition from the Preferred Plan. The first step was the addition of Dogwood, which was completed in May 2024. The second supply side addition identified in the Preferred Plan are these solar energy facilities. The final, near-term additions are one half of an advanced-class combined-cycle combustion turbine by 2029 and a simple-cycle advanced class combustion turbine by 2030. These additions, due to their high-capacity value, low-carbon intensity, and low effective heat rate represent a transition away from aged, high-carbon resources towards a newer, more flexible, and sustainable generation portfolio with less reliance on the general SPP energy market.

If the Company needs capacity in its plan, why not simply build natural gasfired conventional generation sites exclusively?

Evergy supports the need to continue to build out firm, dispatchable resources across its system as our grid must be able to support the 24/7-365 nature of electricity as a backbone of our energy infrastructure and is building them as soon

as they can be developed and delivered to market in 2029 and 2030. However, building a portfolio comprised solely of natural gas-fired conventional generation assets would be a "put all your eggs in one basket" approach, which increases the Company's risk by failing to diversify its asset portfolio. In that build plan, the power plant resource that would be selected would be entirely dependent on the price volatility of the natural gas market. That plan dramatically concentrates risk over the long term for EMW customers while ignoring the historic renewable energy tax credits available to EMW's customers under the Inflation Reduction Act ("IRA"). However, these tax credits are not evergreen and are set to expire in the early 2030s. EMW's customers can benefit from the Investment and Production Tax Credits ("ITCs" and "PTCs") afforded in the IRA, but the Company should invest in natural gas plants when the Preferred Plan determines that they are the most economically efficient generation asset with the lowest NPVRR.

As discussed in the testimony of Cody VandeVelde, the Company evaluated scenarios where the capacity expansion model was not allowed to select solar energy in 2027. The Preferred Plan, after eliminating solar energy in 2027, determined that EMW should build wind, batteries, and an accelerated simple-cycle combustion turbine instead of a natural gas generation facility. Solar plus natural gas shows a good balance of resource technologies across both energy and capacity landscapes.

1 Q: Why are energy and capacity both important to ensuring reliability of energy supply for EMW's customers?

A:

Traditionally, the supply side of the grid has been nearly 100% dispatchable resources. These have been either high fixed cost, medium variable cost baseload resources, such as nuclear, coal, and combined-cycle natural gas plants, or lower fixed cost, high variable cost resources, such as simple-cycle combustion turbines or diesel peaking units.

However, renewable generation resources permit the Company to provide a substantial amount of energy through resources whose marginal cost is effectively zero or negative depending on the tax credit structure used. Renewable resources have tended to be high fixed cost and very low, or even negative, variable cost. However, since these renewable resources are not fully dispatchable (the grid operator does not control when the sun shines or if the wind blows), firm-dispatchable units are used to supplement energy needs at times when the renewable resources are less available. These firm-dispatchable units provide highly accredited capacity, but the energy supplied to the grid is at a medium marginal value. Overall, the grid is likely to transition to lower variable cost assets in the future.

Regardless of the type of generation, it is important for EMW to be able to serve both its peak load (typically represented by capacity) and its energy need throughout the year. EMW's customers depend on the safe and sufficient service to be provided by the Company, and the Foxtrot and Sunflower Sky Projects are shown to do just that, as demonstrated in EMW's 2024 IRP Preferred Plan.

1 Q: Why shouldn't EMW simply rely on independent power producers and enter 2 into PPAs instead of covering its customers' needs with owned generation?

A:

A:

While PPAs are an important option for a utility to consider, the Company's historical asset life is far longer than financial contracts offered by a PPA, with more direct control and regulatory oversight through equity ownership of the resources that serve our customers.

Equity ownership also offers more optionality over the long-haul than does a financial contract for energy and capacity for a fixed duration. Through the ownership of Foxtrot and Sunflower Sky, Evergy will retain the option for enhanced O&M practices, repowering of the inverter and solar panel array, supplementation with Battery Energy Storage Systems ("BESS"), and other gridenhancing technologies over time. As our fleet of solar grows, both at EMW and its sister utilities, we will be able to share knowledge, resources, and best practices in order to optimize the assets for the benefit of EMW customers.

In contrast, if new or innovative technologies are found during the life of a PPA, the benefits of those will likely flow to the out of state, potentially even out of county, Special Purpose Entity owner and not the customers of Evergy Missouri West. Since EMW will own the assets and the interconnection for Foxtrot and Sunflower Sky, it will maintain those options throughout the estimated 30-year life of the projects and beyond.

Q: Are there operational benefits to adding solar to EMW's portfolio now?

Absolutely. Adding solar now allows for Evergy Missouri West to participate in the historic IRA tax credits, add peak-correlated generation to the grid in a relatively shorter time-frame than is currently possible with natural gas, gain experience with large, utility-scale solar installations, and add geographic and fuel diversity to its generation mix. These benefits are reflected both quantitively and qualitatively in the selection of solar as part of the 2024 preferred plan.

Q:

A:

Beyond the benefits of not being dependent on a single fuel commodity and the ability to get energy and capacity onto the grid quickly, EMW will also have the benefit of learning from one of the largest renewables developers in the U.S. with Invenergy and continuing to build out Evergy's own capability to develop, build, own, and operate solar. The ability to learn across both styles of project delivery on Foxtrot and Sunflower Sky will help EMW enhance its experience with large generation project execution, which will continue to benefit EMW throughout the execution of the Preferred Plan.

Were these Solar Projects evaluated against the generic solar resource found in the IRP?

Yes. As described in the testimony of Company witness Cody VandeVelde, Foxtrot and Sunflower Sky closely match the generic resource assumed in the IRP. However, once final project selection was made and final prices were negotiated, these resources replaced the generic resource in the Plan. Overall, these resources showed a \$43 million reduction in NPVRR as compared to the 2024 IRP Preferred Plan that utilized generic resource assumptions, including the 10% upside to the tax credits from an Energy Community Benefit for Foxtrot.

1 Q: Why were these Solar Projects ultimately selected and pursued out of the 2023

All-Source RFP?

Q:

A:

A:

As described in the testimony of Company Witness John Carlson, these two projects were a good fit for the needs identified in the IRP for EMW. Both projects are well sited near transmission infrastructure and in the case of Foxtrot the project is located in an Energy Community. Sunflower Sky and Foxtrot are priced well compared to alternatives, are relatively proximate to Missouri West's service territory, sized close to the MWac capacity need identified in the IRP, were developed by experienced teams, and scored highly out of the 2023 All-Source RFP. Additionally, EMW was able to negotiate deals in a competitive and challenging renewables environment with the counterparties that represent good value.

EMW has resources located in both Kansas and Missouri as part of this application. Can you describe why the resources are located in different areas and different states?

Importantly both projects are grid connected, in the SPP region, and near the service territory of Evergy Missouri West. By siting the projects in two different areas, we increase the geographic diversity of the solar generation for Evergy. Potentially if it is cloudy at one site, it may be sunny in the other and visa-versa, which allows EMW to keep the more fuel-free MWhs on the grid. Foxtrot has a couple of important attributes on the Missouri side of the state line. First, and most importantly, the project is sited in an Energy Community due to the retirement of a nearby coal plant. As described by Company witness Grace, this allows for

additional bonus credits to be realized by EMW customers thanks to provisions in the IRA. Secondly the project is located close to new, high-voltage transmission lines being built in the SPP. This will allow for even better grid access over time for the project. Finally, EMW plans to evaluate a Chapter 100 bond structure for the project, allowing the local community to benefit from the project and EMW's customers to benefit from potentially lower property taxes for the project than would otherwise be paid. Company witness Grace also addresses these plans to evaluate a Chapter 100 bond structure.

A:

For the Sunflower Sky project, the site is located in Kansas, which allows it to benefit from a 10-year property tax abatement on the project. The reduction in property taxes paid will directly benefit Missouri West customers over the life of the project by effectively lowering the costs of owning and operating the power plant. Additionally, due to its favorable positioning on the electric grid, the costs of interconnection for Sunflower Sky are anticipated to be minimized when compared to alternatives.

Q: What are the overall project risks and how does EMW intend to mitigate risks at a portfolio level?

Company Witness John Carlson describes the risks and mitigations associated with the Foxtrot and Sunflower Sky Projects specifically. However, at a portfolio level, EMW is addressing risks in a number of ways. First, it is minimizing the risk by diversifying the approach to the 150 MW of solar in 2027 by pursuing two different sites, with two different contracting philosophies, with two different developers.

This allows EMW to have a "some of all" approach rather than a concentrated single approach when it comes to these first projects in the preferred plan.

Q:

A:

Additionally, the Company continues to look to build options into its plans where possible. While the projects represented here are the best fit for EMW, we continue to stay engaged with other developers in the normal course of business. This allows us to stay up-to-date on market developments and potentially react to changes in the macro environment along the way. This knowledge, obtained both from our development for the regulated utilities, as well as from work on non-commission regulated renewable activities, allows us to think about systemic risks in development including supply chain activities, changes in laws, published guidance for tax incentives, and permitting trends.

Finally, as previously highlighted in my testimony, EMW is pursuing a number of different technologies as part of its Preferred Plan. Existing natural gas, new natural gas, solar, wind, and eventually energy storage and other advanced technologies will all play a role in EMW's supply-side mix. By not being reliant on a single strategy or technology, EMW will be well positioned to optimize its Plan along the way, taking into account new economics, advancements, and procurement environments. The addition of Foxtrot and Sunflower Sky is the next step in the Plan but far from the last one.

Why is now the right time to pursue the solar Projects?

The first and most important reason is that we have these projects identified in the 2024 IRP Preferred Plan. The capacity expansion model, which allows the plan to self-optimize across a number of constraints, has selected solar plants as part of the

energy and capacity solution for EMW. This resource mix was shown to be robust across a number of uncertain futures and represents a good expected value across those critical uncertain factors for EMW customers. These projects are well sited, with studied interconnections, acquired land rights, and good accredited capacity value for non-dispatchable assets. The projects provide short-term fuel-free energy and capacity and long-term optionality through the Company's ownership of the assets. As described by Company witness John Carlson, the assets were selected from a robust, competitive RFP, were negotiated at arm's length with well-qualified counter-parties, and can be placed in service relatively quickly. The projects will be in service to support EMW's resource adequacy needs and will qualify for significant tax benefits, including Energy Community Bonus credits for Foxtrot under the IRA.

Q: Please summarize your testimony.

A:

My testimony reflects that Evergy Missouri West's supply side needs are changing and that the 2024 triennial IRP identified natural gas in 2024 and solar by 2027 as part of the Preferred Plan. While the plan started with the acquisition of the Dogwood Natural Gas plant, Solar offers Missouri West fuel-free, carbon-free, relatively on-peak energy that was shown to be robust across a number of different planning scenarios. The two projects in this CCN application, Foxtrot and Sunflower Sky, were selected out of a competitive RFP process and offer a good mix of contracting strategies. Granting a CCN now allows Evergy Missouri West to quickly move forward to engineer, procure, construct, and test these assets to be ready for the summer 2027 generating season.

- 1 Q: Does that conclude your testimony?
- 2 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) Case No. EA-2024-0292
AFFIDAVIT OF JASON HUMPHREY
STATE OF MISSORUI)) 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 Kansas Central, Inc.
as Vice President Development.
2. Attached hereto and made a part hereof for all purposes is my Direct Testimony
on behalf of Evergy Missouri West consisting of twenty-two (22) 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
Jason Humphrey
Subscribed and sworn before me this 25 th day of October 2024. Notary Public My commission expires: Anthony R. WESTENKIRCHNER
ANTHONY R. WESTENKIRCHNER NOTARY PUBLIC - NOTARY SEAL STATE OF MISSOURI MY COMMISSION EXPIRES APRIL 26, 2025