

**BEFORE THE PUBLIC SERVICE COMMISSION
FOR THE STATE OF MISSOURI**

In the Matter of a Determination of Special)
Contemporary Resource Planning Issues to be)
Addressed by Evergy Missouri West in its Next) File No. EO-2025-0078
Triennial Compliance Filing or Next Annual)
Update Report)

In the Matter of a Determination of Special)
Contemporary Resource Planning Issues to be)
Addressed by Evergy Missouri Metro in its Next) File No. EO-2025-0076
Triennial Compliance Filing or Next Annual)
Update Report)

**EVERGY MISSOURI WEST AND EVERGY MISSOURI METRO’S
RESPONSE TO SUGGESTED SPECIAL CONTEMPORARY ISSUES**

Pursuant to Missouri Public Service Commission (“Commission”) Rule 20 CSR 4240-22.080(4)(B), Evergy Metro, Inc. d/b/a Evergy Missouri Metro (“Evergy Missouri Metro”) and Evergy Missouri West, Inc. d/b/a Evergy Missouri West (“Evergy Missouri West”) (collectively, “Evergy” or the “Company”) hereby respectfully submits *its Response to the Lists of Special Contemporary Issues* suggested by the Office of Public Counsel (“OPC”), New Energy Economics (“NEE”), and Sierra Club (“SC”). The suggestions by the parties for special contemporary issues are identical for both Evergy Missouri Metro and Evergy Missouri West; therefore, the Company hereby submits one response for both special contemporary issue dockets.

I. INTRODUCTION

In Rule 20 CSR 4240-22.080(4)(A) parties to the Integrated Resource Plan (“IRP”) process may file a list of suggested special contemporary issues.

The definition of *special contemporary issue* is found at 20 CSR 4240-22.020(55):

(55) Special contemporary issues means a written list of issues contained in a commission order with input from staff, public counsel, and intervenors that are evolving new issues, which may not otherwise have been addressed by the utility or are continuations of unresolved issues from the preceding triennial compliance filing or annual update filing. Each utility shall evaluate and incorporate special contemporary issues in its next triennial compliance filing or annual update filing.

20 CSR 4240-22.080(4) characterizes special contemporary issues generally as, “evolving regulatory, economic, financial, environmental, energy, technical, or customer issues,” that utilities must adequately address in their resource planning. The Commission has provided additional guidance on the assessment of proposed special contemporary issues in its order in File No. EO-2012-0039.¹

On September 4, 2024, the Commission issued, *Order Opening a File Regarding Special Contemporary Resource Planning Issues and Offering an Opportunity To File Suggestions*, directing interested parties wishing to suggest a special contemporary issue that Evergy should consider in its next Triennial IRP to file written suggestion no later than September 15, 2024. The Company has an opportunity to respond to the lists provided in accordance with Rule 20 CSR 4240-22.080(4)(A). Per the rule, Evergy’s response to the suggested special contemporary issues shall be filed by October 1, 2024.

II. OPC LIST OF CONTEMPORARY ISSUES

On September 13, 2024, OPC filed suggestions for special contemporary issues. OPC requests the Company address the following issues for Evergy Missouri Metro and Evergy Missouri West: (1) Literature Review of Data Center IRP Modeling, (2) High Load Growth Scenarios Related to Data Centers, (3) Carbon Sequestration, (4) Superficial Carbon Dioxide Power Cycles, and (5) Estimated Generation Interconnection Costs and Project Delays.

¹ See, *Order Establishing Special Contemporary Resource Planning Issues*, dated October 19, 2011; Docket No. EO-2012-0039.

Issue 1: Literature Review of Data Center IRP Modeling

1. *OPC requests that the Commission order Evergy to perform a literature review of best practices from around the country on how other utilities are accounting for the addition of data centers in their IRPs and on how risks can be minimized.*

RESPONSE: The Company can comply with OPC's request to conduct a literature review and will incorporate its findings into the narrative of its 2025 IRP Annual Update if ordered by the Commission.

Issue 2: High Load Growth Scenarios Related to Data Centers

2. *OPC requests that the Commission Order Evergy to include in its 2025 IRP update filing an analysis of varying levels of new data center loads in the load forecasting section of its IRP.*

OPC requests that Evergy model the addition of data centers with a demand of 30 MW or greater.

OPC recommends the following load increases, assuming a 0.85 capacity availability factor, for consideration: 60 MW / 90 MW / 250 MW / 500 MW / 1 GW / 2 GW

The analysis should include explanation of whether or not Evergy can reasonably accommodate a customer that requires the aforementioned loads and, if not, how long such an activity would reasonably take given the known constraints, including SPP generation interconnection approval, transmission and distribution build-out, and assumed generation resource procurement.

Evergy needs to be modeling what, if any, impact data centers will have on ratepayers if the AI load materializes in neighboring utilities within SPP instead of within Evergy. Specifically, the level of exposure Evergy ratepayers may experience from a more resource constrained SPP world.

RESPONSE The Company can partially agree to this request. Evergy can agree to model the supply-side needs expected with varying levels of new large customers and describe the considerations, options and timelines for accommodating these large loads. The Company does not have enough information to model the impact of data centers/AI load locating in other areas of SPP. The Company uses the latest vetted SPP models for market pricing, reserve margins, and accreditation expectations. These SPP models likely do not incorporate the uncertain future load

growth OPC would like modeled. When new loads locate in SPP, the host utility will need to obtain/build enough capacity to meet SPP reserve margin requirements associated with them. The resource decisions made by these utilities will determine how resource constrained SPP becomes.

Issue 3: Carbon Sequestration

- 3. OPC requests that the Commission order Evergy to provide a review of the technology and methods currently available as well as the dollar impact for relevant and projected resources to be compliant with the law.***

RESPONSE: The Company does not support this request. The suggestion does not meet the definition of special contemporary issue. It is not an evolving new issue, which may not otherwise have been addressed by the Company. This type of review and evaluation falls within the framework of the Commission’s IRP rules and Evergy will assess accordingly in the 2025 Annual IRP Update.

Issue 4: Supercritical Carbon Dioxide Power Cycles

- 4. OPC requests that the Commission order Evergy to investigate the option of a supercritical carbon dioxide power cycle plant as a resource candidate in future supply-side generation planning and modeling scenarios.***

RESPONSE: The Company does not support this request. Per 20 CSR 4240-22.040 (1) *The utility shall evaluate all existing supply-side resources and identify a variety of potential supply-side resource options which the utility can reasonably expect to use, develop, implement, or acquire, and, for purposes of integrated resource planning, all such supply-side resources shall be considered as potential supply-side resource options.* Given this newly emerging technology comes at a high cost for a limited capacity of 10 MW it will likely not be a viable option in the near-to-mid-term. This request should not be included as a special contemporary issue for Evergy’s 2025 Annual IRP Update.

Issue 5: Estimated Generation Interconnection Costs and Project Delays

5. *(1) OPC requests that the Commission order Evergy to include a model of low, medium, and high interconnection cost estimates that are supported by historic total interconnection costs by fuel type for SPP in its resource adequacy planning scenarios;*

(2) OPC requests that the Commission order Evergy articulate the estimated project length for all generation resources given the current SPP backflow, and the overall demand for generation resources across the United States.

RESPONSE: The Company does not support this request. The suggestion does not meet the definition of special contemporary issue. It is not an evolving new issue, which may not otherwise have been addressed by the Company. Evergy addressed OPC’s request in its 2024 Triennial IRP filing. Evergy performed an analysis of historical interconnection costs by fuel type using the data suggested by OPC. Evergy made interconnection cost uncertainty a component of its construction cost critical uncertain factor in the IRP. Evergy can refresh the estimates if new data is available. Evergy’s plan incorporates the expected lead time to build new resources, including factors such as siting, permitting, construction and interconnection timelines. Evergy is actively negotiating development projects and will update forecasted timelines if expectations change.

III. NEW ENERGY ECONOMICS LIST OF CONTEMPORARY ISSUE

On September 16, 2024, NEE filed (11) suggestions for special contemporary issues.

1. *The Inflation Reduction Act (“IRA”) provides rebates and tax credits for energy efficient equipment and conversion of certain end-uses to electricity. The impact of those credits should be reflected in Evergy’s load forecasts and other demand-side input assumptions.*

RESPONSE: The Company does not support this request. The suggestion does not meet the definition of special contemporary issue. It is not an evolving new issue, which may not otherwise have been addressed by the Company. Incorporating such information, to the extent that it is available, is part of the normal IRP process. The Company’s load forecast utilizes energy efficiency and end-use data from the Energy Information Administration (“EIA”)

within its load forecast. The Company will account for the impacts of the IRA on end-uses and energy efficiency to the extent EIA incorporates it into their forecast. EIA currently includes energy efficiency impacts from the IRA that relate to tax credits. However, the incentive funding is distributed by the individual states and not available broken out. Currently the impact is very small with little change from the previous EIA forecast. Regarding the DSM input assumptions, this study is already complete and there is not sufficient time to restart the study. It is not appropriate to include this suggestion as a special contemporary issue and the Commission should exclude this proposed issue from the final list of such issues. A similar request by NEE was rejected by the Commission for inclusion as a special contemporary issue in the Company's 2024 Triennial IRP.

2. *Evergy should again be ordered to provide details of its plan, if any, to utilize securitization available under the laws of Missouri and Kansas. Details should include, but not be limited to: 1) type of items to be securitized; 2) explanation for need of securitization for each item; 3) how it plans to utilize securitization for each item; 4) estimated costs of securitized items; and 5) comparison of ratepayer costs and benefits related to its IRP planning.*

RESPONSE: The Company does not support this request. The suggestion does not meet the definition of special contemporary issue. It is not an evolving new issue, which may not otherwise have been addressed by the Company. This type of detailed information is most appropriately addressed when the Company seeks a securitization financing Order. A similar request offered by parties was rejected for inclusion in the Company's 2023 Annual Update and 2024 Triennial IRP.

3. *Evergy should address utilization of SPP's replacement process as a means of circumventing uncertainty in the SPP Interconnection Queue, such that new resources can take advantage of existing interconnection rights of retiring units.*

RESPONSE: The Company does not support this request. This suggestion does not meet the definition of special contemporary issue. It is not an evolving new issue, which may not otherwise have been addressed by the Company. Evergy already considers this in its resource

procurement activities, as described in the IRP filing, but the opportunities to reuse interconnection rights are highly resource-specific and thus not something that can be assumed for “generic” future resource additions.

4. ***Evergy should address whether it conducted production cost modeling in its 2024 Triennial IRP and whether it conducted production cost modeling in its 2025 Annual Update. If production cost modeling has not been conducted, Evergy should explain why not.***

RESPONSE: The Company does not believe this request meets the definition of a special contemporary issue and does not support this request. The Company has explained its modeling practices in the IRP and provided detailed model settings in data requests.

5. ***Evergy should discuss in detail what risks Evergy is incorporating into the natural gas price forecast and potential methodologies to more accurately anticipate the occurrence and effects of acute and prolonged periods of elevated gas prices and increased volatility of gas prices in Evergy’s natural gas fuel price forecast.***

RESPONSE: The Company does not support this request. The suggestion does not meet the definition of special contemporary issue. It is not an evolving new issue, which may not otherwise have been addressed by the Company. The natural gas price forecast assumptions were explained in detail in the IRP filing and in stakeholder meetings. Evergy does not have the ability to anticipate when commodity markets will experience acute and prolonged periods of high prices in the next twenty years. To better quantify the risks and possible costs associated with natural gas price uncertainty for the resource plan, Evergy selected the natural gas price forecast as a critical uncertain factor in the IRP. Each resource plan was tested with high and low natural gas price forecasts, as well as the base case forecast. Plans were ranked based on the probability-weighted value of the future scenarios.

6. ***Evergy should explore and report on the Partial and Fitted Chronology settings in PLEXOS including evaluating the potential impact the setting choice may have on the selection of battery storage resources.***

RESPONSE: The Company does not support this request. The suggestion does not meet the definition of special contemporary issue. It is not an evolving new issue, which may not

otherwise have been addressed by the Company. Battery storage was not selected as part of the preferred resource plans in the past two years because other resources were more cost effective to provide energy and capacity to customers. The Company tests its model settings and feels comfortable that costs and benefits relative to other resources rather than chronology was the deciding factor. The Company does perform tests and checks to calibrate the models and affirm the reasonableness of results. However, the Company does not believe a battery modeling study is an appropriate request for an annual update when there are many other analyses requested.

7. ***Evergy should evaluate whether assuming transmission upgrades would have a significant impact on the market prices developed. If there is a significant impact, then Evergy should include those market prices as a sensitivity.***

RESPONSE: The Company does not support this request. Evergy’s market price forecasts are created using SPP transmission planning models. These models include a forecasted future resource mix based on input from stakeholders, and future transmission projects to address resource deliverability and congestion, which are approved through the SPP stakeholder process and leadership. Evergy currently uses six market price forecast scenarios including two different resource mixes and three natural gas price forecasts. To some extent, all new resource and transmission additions are uncertain in the 5-20 year horizon. The most recent SPP transmission plan approved billions of dollars in new transmission. It would be burdensome for Evergy to test removing upgrades to determine if they change prices, and it would be uncertain how to use the information gained in the modeling and selection of the preferred resource plan. Evergy models resources at generic locations in the IRP and does more detailed site-specific analysis when selecting projects to meet the resource needs in its plan. If a specific site value was dependent on a future transmission project, it would be

appropriate to consider the risk in the development phase when the Company decides on the specific resource location.

8. *Evergy should include model runs that relax the build constraints to see if the resource planning model would take more of any constrained resource and report on the results.*

RESPONSE: The Company does not support this request. The suggestion does not meet the definition of special contemporary issue. It is not an evolving new issue, which may not otherwise have been addressed by the Company. Evergy already models runs relaxing build constraints.

9. *Evergy should address forced outage rates for new CTs in PLEXOS and the forced outage rate assumed for CTs and CCs should match what SPP provides as summer and winter weighted average forced outage values.*

RESPONSE: The Company can partially comply with this suggestion. The Company will determine and apply appropriate outage rates for new CC and CT resources. SPP weighted average rates may not be appropriate for new resources.

10. *Evergy should continue to evaluate the potential for coal to natural gas conversions.*

RESPONSE: The Company can comply with this request if ordered by the Commission.

11. *Evergy should model performance-based accreditation for thermal resources according to SPP's latest methodology.*

RESPONSE: The Company can comply with this request if ordered by the Commission.

IV. **SIERRA CLUB LIST OF CONTEMPORARY ISSUES**

On September 15, 2023, SC filed suggestions for special contemporary issues. SC requests the Company address the following topics for Evergy Missouri Metro and Evergy Missouri West: (1) Regulatory Risk Assessment and Going-Forward Value of Evergy's Coal Units, (2) Capacity Expansion Modeling, (3) Load Growth Scenarios, and (4) Grid-Enhancing Technologies.

Issue 1: Regulatory Risk Assessment and Going-Forward Value of Evergy's Coal Unit

1. *Evergy should analyze and document the net present value of continuing to operate each of the Company's coal-burning units, including consideration of known and potential compliance costs.*

Evergy should be ordered to study whether retaining each unit in operation benefits customers in comparison with an alternative suite of resources, including consideration of compliance with all of these environmental regulations.

RESPONSE: The Company does not support this request. The suggestion does not meet the definition of special contemporary issue. It is not an evolving new issue, which may not otherwise have been addressed by the Company. This appears to be a different description of the core function of the IRP process. The Company develops alternative resource plans to determine the benefits to customers of different future portfolios, including resource additions and retirements. The net present value analysis incorporates expected market revenues, production costs, and fixed costs of each resource portfolio. This includes the known and expected compliance costs of continuing to operate coal resources, if applicable, and the revenues and costs of new alternative resources, if applicable. A similar request offered by SC was rejected for inclusion in the Company's 2023 Annual Update and 2024 Triennial IRP.

Issue 2: Capacity Expansion Modeling

2. *Evergy should conduct capacity expansion modeling that does not rely on pre-determined retirement dates for coal units to identify the most economic resource portfolio outcomes.*

RESPONSE: The Company does not support this request. The suggestion does not meet the definition of special contemporary issue. It is not an evolving new issue, which may not otherwise have been addressed by the Company. The identification of a preferred resource plan which meets the fundamental objective outlined in the Chapter 22 IRP rules is the purpose of the IRP process. This preferred resource plan includes the selection of retirement

dates based on an integrated assessment of the economics of existing resource economics as compared to alternatives. Retirements were tested based on the most logical timing - dates that would enable the resources to avoid large capital spends needed for continued operation. Evergy also tested other retirement sensitivities requested by stakeholders. Evergy included wind, solar, lithium-ion-battery, combined-cycle and combustion-turbine generators as new build options, and tested the inclusion of varying levels of demand-response programs to replace coal-fired resources and meet future customer needs. There is an enormous amount of work involved in the IRP process and it would be impractical to develop scenarios for every possible combination of retirements in every year. It would also be of little incremental value because analysis of the modeling results demonstrates that there are limitations to the amount of resources that can be retired and economically replaced while still meeting customer needs, regulatory requirements and considering other risks. The Company will examine whether adding some additional retirement testing dates makes sense, but cannot commit to developing the modeling requested because the team has to prioritize the aspects of the modeling that are the most impactful. A similar request offered by SC was rejected for inclusion in the Company's 2024 Triennial IRP.

Issue 3: Load Growth Scenarios

3. *Evergy's latest investor presentation notes that "more than 6 gigawatts of incremental demand [are] actively considering [its] service territories. Evergy should thus analyze and develop several scenarios for meeting iterations of potential load growth using both demand-side and supply-side solutions to minimize ratepayer impacts.*

RESPONSE: The Company will analyze new large customer scenarios. See response to OPC issue #2.

Issue 4: Grid-Enhancing Technologies (“GET”)

4. *Evergy should study the use of GETs holistically on its system, including the use of dynamic line and transformer ratings, power flow controllers, reconductoring, topology optimization, and other technologies.*

RESPONSE: The Company does not support this request. The suggestion does not meet the definition of special contemporary issue. It is not an evolving new issue, which may not otherwise have been addressed by the Company. This issue is not an integrated resource planning issue, it is a transmission planning issue that is evaluated as such by Evergy. Evergy has evaluated Grid-Enhancing Technologies as alternatives to traditional transmission solutions in specific scenarios but has not yet identified any for deployment due to other factors such as the age and condition of the asset or the lack of available capacity on the nearby system. Additionally, the Southwest Power Pool (SPP) Integrated Transmission Planning process allows for submittal and consideration of projects, including generation options, demand response programs, "smart grid" technologies, and energy efficiency programs, as solutions to identified needs. Following SPP's approval of any projects, including GET projects, that benefit the grid and reduce congestion, Evergy's IRP will reflect the applicable grid efficiencies through its modeling of SPP market pricing over time.

WHEREFORE, Evergy Missouri Metro and Evergy Missouri West submit their *Response to the Lists of Special Contemporary Issues* to the Commission.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed or hand delivered, transmitted by facsimile or by electronic mail to all counsel of record on this 1st day of October 2024.

/s/ Roger W. Steiner

Roger W. Steiner