BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

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In the Matter of the Triennial Compliance Docket for the Integrated Resource Plan of Evergy Kansas Central, Inc. & Evergy Kansas Metro, Inc. Pursuant to the Commission's Order in Docket No. 19-KCPE-096-CPL

Docket No. 24-EKCE-387-CPL

JOINT FILING

COMES NOW, Evergy Kansas Central, Inc. ("Evergy Kansas Central") and Evergy Metro, Inc. ("Evergy Kansas Metro") (collectively referenced hereinafter as "Evergy"), Council for New Energy Economics ("NEE") and Sierra Club (collectively, the "Signatories") hereby submit to the Kansas Corporation Commission ("Commission") this Joint Filing that includes a summary of alleged deficiencies expressed by the Signatories regarding Evergy's Triennial 2024 Integrated Resource Plan ("2024 IRP") submitted in this proceeding on May 17, 2024, proposed resolutions to certain alleged deficiencies, and identifying alleged deficiencies that remain unresolved.

BACKGROUND

1. The Integrated Resource Plan and Capital Plan Framework (the "Framework") was set forth in the Commission's Order on February 6, 2020, in Docket No. 19-KCPE-096-CPL.

2. The Framework includes the following requirement: "If any Party finds any deficiencies, it shall work with Evergy and the other Parties to reach, within forty-five (45) days of the date that the report or comments were submitted, a joint agreement on a plan to remedy the identified deficiencies. If full agreement cannot be reached, this situation should be reported to the Commission through a joint filing as soon as possible, but no later than forty-five (45) days after the date on which the report or comments were submitted. The joint filing should set out in a brief

narrative description those areas on which agreement cannot be reached. If full agreement on remedying deficiencies is not reached, then within sixty (60) days from the date on which the Parties submitted a report or comments relating to Evergy's compliance filing, Evergy may file a response and the Parties may file comments in response to each other's comments. The Commission will issue an order which indicates on what items, if any, a hearing will be held and which also establishes a procedural schedule if necessary."

RESOLUTION

3. With regard to the unresolved and partially resolved alleged deficiencies, Sierra Club agrees that no hearing is required to resolve the issues, and it is unnecessary for the Commission to resolve Sierra Club's alleged deficiencies and concerns at this time.

4. Evergy does not believe the alleged deficiencies require a hearing and will continue to work through the issues with the parties through stakeholder communications for future IRPs. The purpose of this process is to determine whether Evergy's 2024 IRP met the requirements of the Framework, and these issues are outside that scope.

NEE ALLEGED DEFICIENCIES

5. **NEE Deficiency 1:** New Resource Build Constraints: It is NEE's understanding that the build limits modeled are tied to annual capital spend limits rather than apportioning limits to different technology types. This does not seem to align with the build limits used since the limit of 150 MW of wind per year would not have the same cost as the combined cycle ("CC") or combustion turbine ("CT") gas capacity allowed in a single year. NEE is concerned that these limits are too restrictive and will likely make the feasible outcomes narrow in scope. An additional concern about the build limits is that there is no flexibility built in for consideration of how the model can treat the wind PPAs that will expire throughout the planning period.

6. **NEE Deficiency 1 Resolution**: Resolved. Evergy will test relaxing capital constraints as wind PPAs expire in the 2025 IRP Annual Update.

7. **NEE Deficiency 2**: New Thermal Resource Costs: For this IRP, Evergy used a CC and CT capital cost assumption that was higher than the costs modeled in the 2023 IRP Update. Evergy's cost estimate assumed for the CCs modeled in the 2024 IRP are still too low and are lower than the costs NEE has seen modeled in other jurisdictions.

8. **NEE Deficiency 2 Resolution:** Evergy does not agree this is a deficiency. Notwithstanding, this issue is resolved. Evergy agrees to update assumptions using internal and external references including engineering studies, 3rd party data sources, and other development projects.

9. **NEE Deficiency 3**: Accreditation for New Thermal Resources: Upon evaluation of the modeling input and output files, it appears that the new CC and CT resources were accredited at their nameplate rather than at unforced capacity ("UCAP"). A UCAP value appears to have been used for existing thermal resources, but not for the new thermal resources. In contrast, Evergy used expected ELCC values for renewable and battery resources in its IRP simulations. Modeling performance adjustments to accreditation for solar, wind, and battery storage without also modeling those changes for new thermal resources would bias the expansion plans towards thermal resources.

10. **NEE Deficiency 3 Resolution**: Evergy does not agree this is a deficiency. Notwithstanding, the issue is resolved. Evergy expects to model performance-based accreditation at the resource level in the 2025 IRP and will include the expected accreditation impact for new thermal resources. Evergy modeled the expected impact of performance-based accreditation on a fleet-wide basis by calculating the first few years and assuming the value would remain constant

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throughout the rest of the planning horizon. The rules, calculations, and data needed to calculate performance-based accreditation are not final, however, Evergy will continue to refine its assumptions based on the best information available for each IRP filing.

11. **NEE Deficiency 4:** Modeling Coal to Natural Gas Conversion: While co-firing options at Evergy's coal plants were considered for the Green House Gas ("GHG") Rules scenario modeled in this IRP, it is not clear why the coal to natural gas conversions were not evaluated in the 2024 IRP like they were for the 2023 IRP Update.

12. **NEE Deficiency 4 Resolution**: Evergy does not agree this is a deficiency. Notwithstanding, the issue is resolved. Evergy will screen for the viability of gas conversions in future IRPs. Coal to natural gas conversions were not economic in prior IRP testing. Evergy tests many scenarios to create alternative resource plans and calculates the value of these plans with varying critical uncertain factor forecasts (natural gas prices, construction costs, carbon restrictions). Evergy has to narrow the range of viable options to test each year balancing the number scenarios required by rules or stakeholder needs and the likely economics of alternative options.

13. **NEE Deficiency 5**: Production Cost Modeling. Based on information NEE has seen for this IRP, NEE is now uncertain about Evergy's modeling process and whether the plans are modeled in a production cost step.

14. **NEE Deficiency 5 Resolution**: Evergy does not agree this is a deficiency. Notwithstanding, this issue is resolved. Evergy continues to test variations in production cost modeling and hopes to provide more granular modeling in future IRPs while also preserving its ability to test a variety of scenarios and uncertainties. Production cost modeling is included in every IRP model. The capacity expansion model chooses the resource additions that result in the

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least total costs, including fixed and production costs, to serve load and meet capacity needs. Each plan is also valued based on expected production costs and fixed costs considering different critical uncertain factor futures. Evergy has found that running very granular, detailed models can be time and memory intensive, while producing similar results to more efficient models.

15. **NEE Deficiency 6**: Coal Retirement Costs: NEE is unclear about what costs are included in the Retirement Cost modeled in PLEXOS for each of the coal plants.

16. **NEE Deficiency 6 Resolution**: Evergy does not agree that this is a deficiency. Notwithstanding, this issue is resolved. Evergy has explained this model variable to NEE.

17. **NEE Deficiency** 7: Natural Gas Price Forecast: Evergy should evaluate natural gas price scenarios that are better aligned with historical volatility and realized costs within the region.

18. **NEE Deficiency 7 Resolution**: Evergy does not agree that this is a deficiency. This issue remains unresolved.

19. **NEE Deficiency 8**: SERVM Modeling: NEE raises several concerns about the SERVM modeling process and requests increased opportunity for stakeholder questions and feedback.

20. **NEE Deficiency 8 Resolution**: Evergy does not agree that this is a deficiency. Notwithstanding, this issue is resolved. Evergy agrees to provide more discussion of how it is using SERVM in future IRPs to increase transparency to stakeholders.

SIERRA CLUB ALLEGED DEFICIENCIES

21. **Sierra Club Deficiency 1**: The Company has only tested a limited amount of coal retirements, and heavily favored plans that keep the units on-line longer.

22. Sierra Club Deficiency 1 Resolution: Unresolved.

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23. Sierra Club Deficiency 2: Evergy has ignored the massive compliance costs that these units would require to meet EPA's greenhouse gas limits.

24. **Sierra Club Deficiency 2 Resolution**: Evergy does not agree this is a deficiency. Notwithstanding, this issue is resolved. Evergy will update its analysis to include compliance costs for each generating unit with the EPA's greenhouse gas rules – both 111(b) and 111(d) – in the base or reference case of its 2025 IRP including consideration of lowest-cost paths (retirement, co-firing, natural-gas conversion). Evergy will further identify a plan to comply with EPA's greenhouse gas rules for each of its coal-fired and proposed gas-fired units in its 2025 IRP.

25. Sierra Club Deficiency 3: Evergy has overstated the costs of clean resources.

26. Sierra Club Deficiency 3 Resolution: Unresolved.

27. Sierra Club Deficiency 4: Evergy has understated the costs of new gas by not considering the costs associated with carbon capture and storage ("CCS") in most cases.

28. Sierra Club Deficiency 4 Resolution: Unresolved.

WHEREFORE, Evergy respectfully requests the Commission accepts this Joint Filing.

Respectfully submitted,

<u>|s| Cathryn J. Dinges</u>

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ATTORNEY FOR SIERRA CLUB

VERIFICATION

STATE OF MISSOURI)
) ss:
COUNTY OF JACKSON)

Cathryn J. Dinges, upon oath first duly sworn, states that she is Senior Director and Regulatory Affairs Counsel for Evergy Kansas Central, Inc. and Evergy Kansas South, Inc., that she has reviewed the foregoing pleading, that she is familiar with the contents thereof, and that the statements contained therein are true and correct to the best of her knowledge and belief.

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Subscribed and sworn to before me this 2nd day of December 2024.

ANTHONY R. WESTENIGRCHNER NOTARY PUBLIC - NOTARY SEAL STAT RES APRIL 26, 2025 MY CO 150 PLATTE COUNTY ന SION #17279852

Notary Public

My Appointment Expires: 4/2u/w25

CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that a true and correct copy of the above was electronically served, hand-delivered or mailed, postage prepaid, this 2nd day of December 2024 to:

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