Public Version

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of Evergy Metro, Inc. d/b/a Evergy Missouri Metro's 2024 Triennial Compliance Filing Pursuant to 20 CSR 4240-22))	File No. EO-2024-0153	
In the Matter of Evergy West, Inc. d/b/a Evergy Missouri West's 2024 Triennial Compliance Filing Pursuant to 20 CSR 4240-22))	File No. EO-2024-0154	

JOINT FILING

Pursuant to 4 CSR 240-22.080(9), Evergy Metro, Inc. d/b/a Evergy Missouri Metro ("Evergy Missouri Metro") and Evergy West, Inc. d/b/a Evergy Missouri West ("Evergy Missouri West") (collectively, "Evergy" or the "Company")¹, the Staff of the Missouri Public Service Commission ("Staff"), the Office of Public Counsel ("OPC"), the Council for the New Energy Economics ("NEE"), Renew Missouri Advocates d/b/a Renew Missouri ("Renew Missouri"), and Sierra Club, (collectively, the "Signatories") hereby submit to the Missouri Public Service Commission ("Commission") this Joint Filing that includes a remedy to many alleged deficiencies and concerns expressed by the Signatories of this Joint Filing regarding the compliance filing Evergy submitted in this proceeding on April 1, 2024. Additionally, this document also identifies those alleged deficiencies or concerns that could not be resolved by the Signatories.

The American Association of Retired Persons ("AARP"), the City of Kansas City, Missouri ("the City"), the Consumers Council of Missouri ("Consumers Council" or "CCM"), Google LLC ("Google"), the International Brotherhood of Electrical Workers, Local 304 ("Local 304"), the Missouri Department of Natural Resources —Division of Energy ("DE"), Missouri Energy Consumers Group ("MECG"), the Missouri Electric Commission ("MEC"), and the

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¹ Effective October 7, 2019, Evergy Metro Inc. d/b/a Evergy Missouri Metro adopted the service territory and tariffs of Kansas City Power & Light Company ("KCP&L") and Evergy Missouri West, Inc. d/b/a Evergy Missouri West adopted the service territory and tariffs of KCP&L Greater Missouri Operations Company ("GMO").

Natural Resources Defense Council ("NRDC"), intervened in this case, but they are not Signatories to this Joint Filing.

In support hereof, the Signatories offer as follows related to both Evergy Missouri Metro and Evergy Missouri West Triennial Integrated Resource Plans ("IRP") compliance filings.

BACKGROUND

- 1. On April 1, 2024, Evergy submitted its triennial compliance filings related to Chapter 22 of the Commission's regulations concerning the Company's Electric Utility Resource Planning.
- 2. On August 29, 2024, Staff, OPC, NEE, Renew Missouri, and Sierra Club submitted reports identifying concerns and in some cases alleging certain deficiencies regarding Evergy's 2024 Triennial IRP. Although AARP, the city, CCM, Google, Local 304, NRCD, DE, MECG, MEC, and the NRDC intervened in the cases, they did not submit reports.

RESOLUTION

3. The Commission's Electric Utility Resource Planning regulations provide that if the Staff, Public Counsel or any intervenor finds deficiencies in or concerns with a triennial compliance filing, they shall work with the electric utility and the other parties in an attempt to reach a joint agreement on a plan to remedy identified deficiencies and concerns and to describe any deficiencies and concerns for which no remedy was reached. The Signatories have worked together to develop such a Joint Filing. This Joint Filing represents the fruits of those efforts. With regard to the unresolved alleged deficiencies² and concerns, the Company, Staff, Sierra Club, Renew Missouri, and NEE agree that no hearing is required to resolve the issues, and it is unnecessary for the Commission to resolve the alleged deficiencies and concerns at this time. The

² While the Company supports the remedies proposed below, the Company does not agree that any of the alleged deficiencies are in fact deficiencies.

OPC does not expressly request a hearing but wishes this filing to serve as a formal placeholder to identify that this IRP has been contested.

AGREED UPON REMEDIES TO ALLEGED DEFICIENCIES AND CONCERNS IN FILING NO. EO-2024-0153 and EO-2024-0154

STAFF

Staff EMM & EMW Concern 1: Staff has a number of concerns as it relates to the IRP and the Company's MEEIA applications. Evergy's avoided capacity, energy, and transmission and distribution (T&D) costs, assumed supply-side deferral, budget and savings levels, third-party aggregation assumptions, and program design among others.

Resolution: Resolved. The Company's MEEIA Cycle 4 docket (EO-2024-0369 and EO-2025-3070) is the appropriate docket to address MEEIA concerns.

Staff EMM & EMW Concern 2: While Staff's prior concern with the Company's use of "hard-coded" resource additions in its modeling is lessened with the Company using its capacity expansion modeling to a fuller extent, certain concerns remain The concerns include, but are not limited to: (1) the size and timing of supply-side resources in the alternative resource plans continue to have several similarities; (2) the retirements are manually tested and have similar timing; and (3) a relatively small variety of demand-side management portfolios are manually tested.

Resolution: Resolved. Evergy and Staff agree to work on a schedule for continuing discussions on the Company's capacity expansion modeling, assumptions, and processes. Parties agree that discussions will occur before the Company's 2025 IRP Annual Update is filed.

Staff EMM Concern 3: Staff has concerns with economic development load growth being factored into the requirements utilized for the development of alternative resource plans, but not being included in the load forecasts of this 2024 IRP Filing. Staff's concern is heightened now that load growth is no longer considered a critical uncertain factor. **Staff EMW Concern 3**: Staff would be concerned If Evergy West adopted Evergy Metro's methodology for economic development load growth being factored into the requirements utilized for the development of alternative resource plans that are not included in the load forecasts of this 2024 IRP Filing.

Resolution: Resolved. Evergy included the firmly committed economic development load into the load planning assumptions in the 2024 IRP and was able to resolve Staff's concern regarding firm, publicly announced economic development load. Per the Commission's *Order Establishing Special Contemporary Resource Planning Issues*, the Company will:

Model large load growth scenarios stemming from: 1) data centers with a demand of 30 megawatts or greater; 2) potential re-shoring of industries, specifically manufacturing or materials refinement; and 3) electrification

of buildings and vehicles as a result of federal mandates changes in the marketplace, or evolving consumer preference. \square

Docket EO-2025-0076 and EO-2025-0078, In the Matter of a Determination of Special Contemporary Resource Planning Issues to be Addressed by Evergy Missouri Metro and Every Missouri West in its Next Triennial Compliance Filing or Next Annual Update Report; October 23, 2024.

Staff EMW Concern 4: Staff has concerns with the Crossroads early retirement contingency plan and Staff has expressed its concern with the early retirement of Crossroads in the Company's current general rate case.

Resolution: Resolved. EMW's general rate case docket (ER-2024-0189) is the appropriate docket to address this concern.

Staff EMM Concern 4 & EMW Concern 5: Evergy Metro and Evergy West's shift toward renewable, non-dispatchable resources potentially exposes ratepayers to risks borne by the Company.

Resolution: Resolved. The Company has filed two Notice of Intended Cases for Permission and Approval of Certificates of Public Convenience and Necessity ("CCN"). The Company's CCN dockets (EA-2024-0292 and EA-2025-0075) are the appropriate dockets to address this concern.

Staff EMM Concern 5 & EMW Concern 6: The Company in recent years has been using the IRP as its primary justification in support of purchasing or building generation resources. As Staff has previously stated in testimony, the IRP rules can function as a roadmap in the sense that it points you in a general direction, but it should not be relied on for the determination of specific projects.

Resolution: Resolved. While the Company and Staff have different positions on the role of the IRP in the decisions to purchase or build generation resources, the Company reaffirms its commitment to file under Missouri law for Commission ordered certificates of convenience and necessity "CCN" for specific projects. The Company believes that Commission mandated integrated resource planning is the necessary process for long-term planning and the Company will continue to utilize integrated resource planning gas it determines needs, select resources, and ultimately files for a CCN. In the Company's CCN filings, the Company will provide support for each specific project and demonstrate, including but not limited to, the need, economic feasibility, and public interest for each specific project.

OFFICE OF THE PUBLIC COUNSEL

OPC Deficiency 1: The preferred plans are unreasonable. The preferred plans Evergy both show that Evergy West and Evergy Metro are planning to depend on SPP to meet a significant portion of the energy needs of their customers.

Resolution: Unresolved.

OPC Deficiency 2: Planning models show unrealistic energy generation. The outputs of Evergy West and Evergy Metro's resource planning models show unrealistic results for estimated energy generation by Iatan 1 and Iatan 2 for certain consecutive years within the modeled 20-year planning horizon.

Resolution: Resolved. The Company does not agree that this is a deficiency. The Company plans for each utility individually. The difference in energy generation of Iatan 1 and Iatan 2 between the modeling of Evergy Missouri West and Evergy Metro resource plans is a direct result of the constraints inputs into each utility's model. In particular, constraints on the amount of energy that could be purchased from the market and limited capital expenditures for added generation resources resulted in a difference of how often the model would dispatch existing generation plants to provide energy. The Company will, in its future resource planning documentation, provide a comparison of the energy output of jointly-owned resources and explain the discrepancies between the joint owners.

OPC Deficiency 3: No modeling of data center load growth. The impacts of high load and high load-factor data center customers on Evergy West and Evergy Metro's capacity and energy requirements are neither modeled nor analyzed.

Resolution: Unresolved.

OPC Deficiency 4: Unsupported demand response assumptions regarding the Company's TOU offerings. Evergy West and Evergy Metro's modeled demand response estimates are unrealistic and not supported by their market potential studies.

Resolution: The Company does not agree that this is a deficiency. The Company modified the original potential study estimates to better align with the Commission's order on TOU rates. The 2024 IRP adjusted the TOU impacts to 30% of the original forecast. Evergy expects to align each utility's DSM assumption to align with future expectations that more closely align with the final approved MEEIA Cycle 4 programs.

OPC Deficiency 5: Capital Budget Spending Constraints. Resource additions are limited by Evergy's expected capital budget spending constraints. Additional risk is placed on customers due to the restriction.

Resolution: Unresolved.

OPC Concern 6: SPP Generation Interconnection Queue. Evergy, which includes Evergy West and Evergy Metro, has no thermal generation projects in the SPP interconnection queue.

Resolution: Resolved. Resolved. The Company recently filed an *Amended Notice of Intended Case Filing* indicating that it plans to build thermal resources. These projects have been filed in SPP's upcoming interconnection queue cluster study process. See **CONFIDENTIAL Attachment A**.

RENEW MISSOURI

Renew Concern 1: Renew is concerned that, without a discussion of TOU rate impacts on load growth, load growth could be overstated. Renew is also concerned that assuming most customers will remain on the default TOU rate and that the default TOU rate will retain the same differential in perpetuity is an inappropriate assumption.

Resolution: Resolved. For the purpose of Evergy's Triennial IRP, this concern is resolved. Evergy will continue to monitor and study the impact of the TOU rates on load.

Renew Concern 2: New Natural Gas Generation and Vague Firm Dispatchable Resources. Renew alarmed by the investments in new natural gas plants included in Evergy's Preferred Plan. Investment in new gas plants is risky from economic, environmental, and societal perspectives. The Preferred Plan includes combined cycle natural gas ("CCNG") projects, both with and without carbon capture technologies, and potentially combustion turbine gas projects. The Company also modeled the inclusion of "non-emitting firm dispatchable" generation.

Resolution: Resolved. For the purpose of Evergy's Triennial IRP, this concern is resolved. Evergy will incorporate GHG rules in the 2025 resource plan now that they have been finalized. The Company will address at a high level the GHG rules in its upcoming CCN filing for natural gas electrical production facilities (EA-2025-0075). The Company will continue to evaluate battery storage and update cost information as it becomes available.

Renew Concern 3: Grid-scale Battery Storage. Evergy does not include grid-scale storage as a component of its Preferred Plan, an omission Renew Missouri views as a serious flaw in this IRP

Resolution: Resolved. Evergy did model ITC as part of storage economics – including 30% and 40% when existing resources retire. Storage economics were not favorable in 2024 IRP (or 2023) due to high fixed costs. Evergy will update the model with the latest cost estimates to see if they become part of the least-cost plan. The Company will agree to a meeting with Renew to discuss the assumptions made for the battery storage fixed costs/LCOE.

Renew Concern 4: Power Purchase Agreements. By narrowly focusing on owning all its generators, Evergy is disregarding better alternatives to risky investments.

Resolution: Resolved. For the purpose of Evergy 2024 Triennial IRP, this concern is resolved.

Renew Concern 5: Siting that Maximizes Clean Energy Investment and/or Production Tax Credits.

Resolution: Resolved. For the purpose of Evergy 2024 Triennial IRP, this concern is resolved. The Company will continue to collaborate with parties to explore potential options for future analysis.

Renew Concern 6: Evergy's distribution engineering team did not explicitly incorporate demandside management programs ("DSM") as a transmission resource to offset specific future distribution or substation capacity projects.

Resolution: Resolved. For the purpose of Evergy 2024 Triennial IRP, this concern is resolved. Evergy's distribution engineering team actual load data at the feeder circuit level to identify the need for distribution circuit upgrades and substation capacity projects. Real, observed load data includes any benefits provided by existing DSM programs. As new programs are introduced and offered to customers, those benefits will also be incorporated into the planning process.

Renew Concern 7: As technology continues to advance, new opportunities will proliferate for electric providers to interact with customer owned Distributed Energy Resources ("DER"), including residential battery storage systems and electric vehicle batteries.

Resolution: Resolved. Evergy can develop a larger scale VPP type offering based on Evergy's residential battery storage pilot costs and impacts. This would be modeled as a resource option in the 2026 IRP.

Renew Concern 8: Evergy proposed to exclude DG customers from TOU rates entirely based on the claim that a DG customer's excess generation could not be accounted for in a manner compliant with the statute need for Evergy to model the potential for integrated solar and storage programs to aid in deferring or avoiding at least a portion of the transmission and generation needs planned for in this IRP.

Resolution: Resolved. The Company will implement a method in Evergy Missouri West to allow TOU for net metering customers. The Company will host web content to educate customers regarding net metering and time-based billing on its website by February 1, 2025.

Renew Concern 9: Evergy did not include third party aggregators of DERs in its IRP.

Resolution: Resolved. Evergy has called many more demand response events in recent years including the active use of the batteries in the residential battery storage pilot. Aggregators are able to participate in SPP's energy and ancillary markets but cannot contribute to Evergy's resource adequacy needs.

NEE

NEE Concern 1: Supply Side Resource Analysis (evaluation of all resources). 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.

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

NEE Deficiency 1: Supply Side Resource Analysis (costs). For this IRP, Evergy used a combined cycle ("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.

Resolution: Resolved. The Company does not agree that this is a deficiency. The Company agrees to update assumptions using internal and external references including engineering studies, 3rd party data sources, and other development projects.

NEE Deficiency 2: Supply Side Resource Analysis (evaluation of all 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.

Resolution: 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. The Company does not agree that this is a deficiency. 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 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.

NEE Concern 2: Supply Side Resource Analysis (Cost) 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.

Resolution: 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.

NEE Concern 3: 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.

Resolution: 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 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.

NEE Concern 4: Supply Side Resource Analysis (evaluation of all resources). NEE is uncertain about the categories of cost that are included in the retirement costs modeled in PLEXOS.

Resolution: Resolved. Evergy has explained this model variable to NEE.

NEE Concern 5: Natural Gas Price Forecast. The comparison of the natural gas price forecasts modeled for the 2023 IRP Update and the 2024 IRP shows that the entire gas price forecast horizon shifts up or down by multiple dollars per MMBtu each year in reaction to the most recent 12 months. This shift between 2021, 2023, and 2024 indicates that inevitable future fuel price volatility and prolonged periods of higher price are not incorporated into the gas price forecast methodology.

Resolution: Resolved. Evergy will continue to collaborate with stakeholders on how to incorporate fuel volatility and uncertainty into the Company's forecast.

NEE Concern 6: SERVM Modeling.

Resolution: Resolved. Evergy agrees to provide more discussion of how it is using SERVM in future IRPs to increase transparency to stakeholders.

NEE Concern 7: Stakeholder Workshops The stakeholder process is not currently structured to allow best practice transparency and to solicit input from stakeholders.

Resolution: Unresolved.

SIERRA CLUB

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.

Resolution: Unresolved.

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

Resolution: Resolved. The Company does not agree that this is a deficiency. The Company 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). The Company 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.

Sierra Club Deficiency 3: The Company has overstated the costs of clean resources.

Resolution: Unresolved.

Sierra Club Deficiency 4: The Company has understated the costs of new gas by not considering the costs associated with CCS in most cases.

Resolution: Unresolved.

Respectfully submitted,

s Roger W. Steiner

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, transmitted by facsimile or electronically mailed to all counsel of record this 5th day of November 2024.

Roger W. Steiner

Roger W. Steiner

ATTACHMENT A CONTAINS CONFIDENTIAL INFORMATION NOT AVAILABLE TO THE PUBLIC.

ORIGINAL FILED UNDER SEAL.

Evergy Metro, Inc. d/b/a Evergy Missouri Metro and Evergy Missouri West, Inc. d/b/a Evergy Missouri West

Docket No.: EO-2024-0153/1054

Date: October 25, 2024

CONFIDENTIAL INFORMATION

The following information is provided to the Missouri Public Service Commission under CONFIDENTIAL SEAL:

Document/Page	Reason for Confidentiality from List Below	
Attachment A	3, 4, 6, and 7	

Rationale for the "confidential" designation pursuant to 20 CSR 4240-2.135 is documented below:

- 1. Customer-specific information;
- 2. Employee-sensitive personnel information;
- 3. Marketing analysis or other market-specific information relating to services offered in competition with others;
- 4. Marketing analysis or other market-specific information relating to goods or services purchased or acquired for use by a company in providing services to customers;
- 5. Reports, work papers, or other documentation related to work produced by internal or external auditors, consultants, or attorneys, except that total amounts billed by each external auditor, consultant, or attorney for services related to general rate proceedings shall always be public;
- 6. Strategies employed, to be employed, or under consideration in contract negotiations;
- 7. Relating to the security of a company's facilities; or
- 8. Concerning trade secrets, as defined in section 417.453, RSMo.

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Should any party challenge the Company's assertion of confidentiality with respect to the above information, the Company reserves the right to supplement the rationale contained herein with additional factual or legal information.