BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Evergy Metro, Inc. d/b/a Evergy Missouri Metro's 2025 Integrated Resource Plan Annual Update Filing	)))	File No. EO-2025-0250
In the Matter of Evergy West, Inc. d/b/a Evergy Missouri West's 2025 Integrated Resource Plan Annual Update Filing	)))	File No. EO-2025-0251

EVERGY MISSOURI METRO AND EVERGY MISSOURI WEST
RESPONSES TO ALLEGED DEFICIENCIES AND CONCERNS

COMES NOW, 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") in response to comments filed, and pursuant to the Commission's June 5, 2025, order respectfully states the following.

BACKGROUND

On March 13, 2025, Evergy submitted its 2025 Integrated Resource Plan ("IRP") annual update filings. A stakeholder presentation ("workshop") took place on April 3, 2025. On April 7, 2025, Evergy filed a notice advising the Missouri Public Service Commission ("Commission") that Evergy was making not changes to the March 13, 2025, Annual Update Reports filed in the above captioned dockets as a result of the discussions at the April 3, 2025 workshop.

On May 7, 2025, Sierra Club ("Sierra Club") and the Council for the New Energy Economics ("NEE") filed comments on Evergy's 2025 Integrated Resource Plan Update. Also on that date, The Office of Public Counsel ("OPC") filed a motion for an extension which was granted by the Commission on May 9, 2025. Commission staff ("Staff") then filed a motion for clarification on May 13, 2025. Renew Missouri ("Renew") also followed with a motion for clarification on May 19, 2025. On May 20, 2025, the Commission issued its Second Order

Granting Motion for Extension, which gave all parties an extension of time until May 28, 2025. Staff, OPC and Renew Missouri filed comments on May 28, 2025. On June 5, 2025, the Commission issued an order directing Evergy to respond no later than June 20, 2025.

EVERGY RESPONSE TO ALLEGED DEFICIENCIES AND CONCERNS
MISSOURI PUBLIC SERVICE COMMISSION STAFF

Staff Comment 1 related to Load Forecasting and Large Load Customers: The Company's 2025 Annual Update recognizes these projected increases in load growth but it does not provide adequate detail on several important aspects of the forecast. Specifically, it lacks clear and comprehensive explanation of the forecasting methodologies used to arrive at the updated projections.

Response: There are numerous options to consider when planning for the future generation needs of new large load customers. One option would be for Evergy to use generic demand profiles to solve for additional capacity sufficient to meet some level of potential new large load customer demand in each service territory. Another is to use specific customer-informed demand projections. Lastly, Evergy could apply some probability or percentage to its full large load customer pipeline and plan to build or procure generation to meet the probabilistic demand. There may be other ways to plan for large load customers, but there are risks and trade-offs no matter the approach. To avoid exposing the IRP Preferred Plans to unnecessary risks, Evergy has chosen to not include a probability of the full large line pipeline into the base planning assumption. Similarly, since Evergy does have experience with specific customers and insight from analyzing customer-informed forecasts, we have also not elected to use generic large load demand profiles in base planning assumptions.

Section 2 of Metro's and Missouri West's 2025 IRP Annual Update explains the forecasting methodology for specific large load customers. In 2025, Evergy implemented a new large customer intake process that allows the Company to properly complete due diligence on large load customers, sets forth numerous data points to vet the feasibility of the project, and allows the

Company judgement as to whether the project should be included in base IRP planning. Some of the criteria used to inform that judgement included a requirement that the customer had committed a sizeable deposit to support on-going planning analysis, the customer's demand had been submitted to the Southwest Power Pool for load addition studies, and the strong expectation that Construction and Service Agreements would be executed in the near future. One new large load customer in each jurisdiction, Metro and EMW, met these requirements and were included in the 2025 IRPs. The specific load forecasts used for IRP modeling were derived by customer supplied demand forecasts. To make appropriate progress on generation planning, Evergy needs to use the best available customer-informed forecast at the time. Consistent with the planning and development of any large construction project, as the large load customers continue to make progress in their development, Evergy expects to receive updated and more granular demand profiles over time.

Staff Comment 2: "…the forecast does not clearly show which large loads are included, what probability has been assigned to them, or how uncertainty around their timing has been handled…..key assumptions regarding the expected load profile, flexibility potential, consumption patterns and flight risk of the newly anticipated large-load customer are not presented….It does not evaluate the risks specific to a large customer driven project, such as delays in project timelines, phased deployment, or potential project cancellations."

Response: See response to Comment 1 above.

Staff Comments on SB 4's impact

Response: Evergy agrees that passage of Senate Bill 4 in parallel with the dynamic large load growth that the electric utility industry is facing creates an opportunity to evaluate the existing electric utility resource planning guidelines. The appropriate planning and reporting of large load is likely a state-wide issue and may or may not be best-suited to be handled in the existing IRP process. Evergy prefers these matters be considered by the Commission within the revisions contemplated in Senate Bill 4 and not specific to the Company's IRP process.

OFFICE OF THE PUBLIC COUNSEL

Related to Evergy Missouri West

OPC Comment 1: OPC alleges that "[t]he New Preferred Plan is Unreasonable: Evergy Missouri West's new preferred plan continues to rely on the increasingly volatile SPP energy market by failing to meet a significant portion of its customer's energy needs thus placing the risk of unpredictable and extreme purchased power costs on its customers."

Response: Evergy does not agree with this assessment. Evergy has listened to OPC's concerns in prior filings and in the past couple of years has adapted its forward planning process specifically to reduce potential future dependence on the SPP market.

OPC's assertion that Evergy Missouri West is not planning to meet customers' energy requirements is false. The economic analysis of the resource plans demonstrates that the ability to buy and sell energy to and from the market is beneficial. The chart OPC used in its comments taken from the IRP shows that Evergy Missouri West may buy low-cost energy from the SPP market to reduce the production cost to serve load and meet expected carbon reduction constraints. The future SPP market pricing assumptions are based in part on the addition of new resources by Evergy and other utilities, including renewables and storage with zero or negative energy costs. Availability of low-cost market energy does not mean that Evergy Missouri West will not have physical generation available when needed to cover customer energy.

From a physical energy capability standpoint, Evergy (and each utility) plans to meet or exceed expected SPP planning reserve margins in every year of the plan. SPP sets reserve margins by performing a Loss of Load Expectation (LOLE) study, resulting in requirements that each utility maintain enough accredited capacity such that SPP expects to lose load on average one day in ten years, which is the industry planning standard. SPP in the past couple of years has undertaken comprehensive studies and stakeholder processes to refine its assessment of reliability needs and resource contributions to meeting those needs. Evergy incorporated the most current information

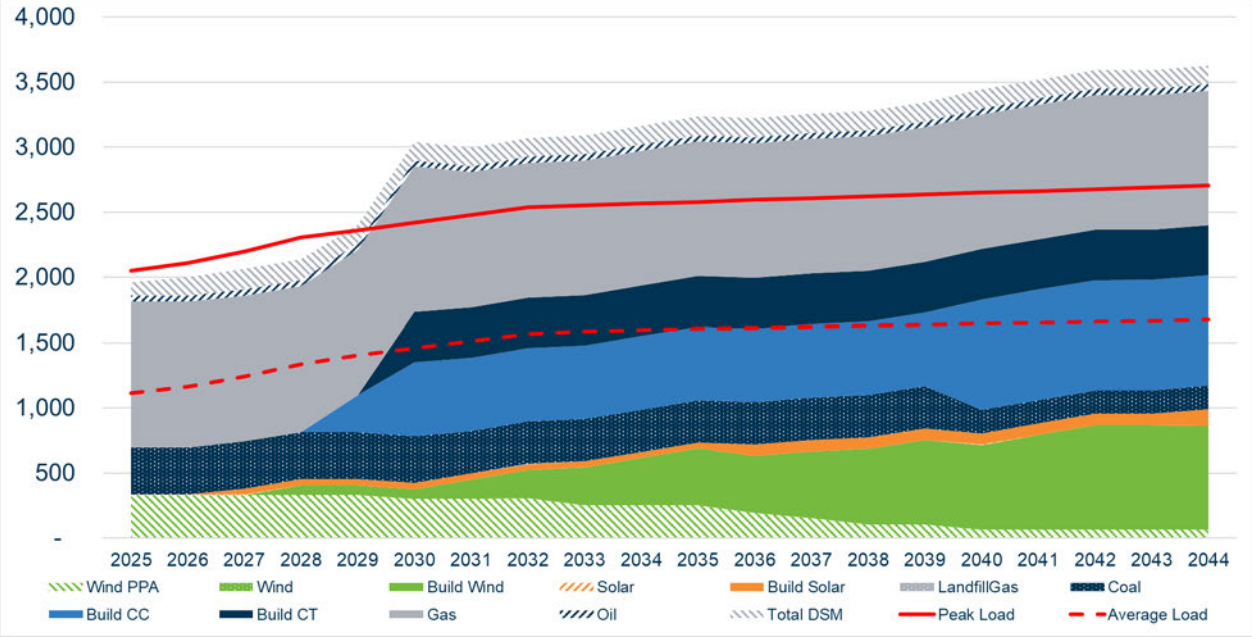
into its capacity needs assessment in the 2025 Annual Update. Meeting the capacity need in every planning year also means that physical energy is expected to be available at all times to meet load, consistent with the reliability standard.

From an economic energy standpoint, as explained in the IRP, beginning in 2031, Evergy Missouri West was limited to 200 MW per hour of energy purchases or sales (net of load), representing approximately 15% of average load or 10% of peak. This planning assumption balances the benefits expected from participation in the SPP market, while also prompting Evergy Missouri West to attain a future resource portfolio that provides a physical and economic hedge. Evergy Missouri West was also limited to 20 MW of market capacity after 2031, so that future capacity needs will be filled by new resources that have associated energy profiles. The market purchase constraints simply mean that, when an optimal resource mix is selected, it is selected not only because it is the lowest-cost way to meet Resource Adequacy Requirements, but also because it is the lowest-cost way to produce energy which aligns closely (within 10-15%) with the utility's customers' hourly energy needs. On the market sale side, it also means that an optimal plan will not be developed solely because of the revenues it could generate from selling energy in excess of customer needs. In short, this constraint ensures that a resource portfolio is developed based on specific customer energy needs and not just forecasted energy market prices. This constraint is phased in over time because it is most relevant in the second decade of the planning horizon when expected fossil retirements across the SPP and within Evergy's fleet, combined with the expiration of Evergy's wind PPAs, are expected to significantly change Evergy's net position in the SPP energy market.

Evergy Missouri West is executing on its plan to add solar in 2027 and three new thermal resources in 2029 and 2030 (two 50% shares of combined-cycle gas turbines and one simple-cycle

gas turbine), contingent on approval of pending Certificates of Convenience & Necessity ("CCN"). After these new resources are developed, Evergy Missouri West is not expected to need any market energy purchases at peak (although it could still utilize them if economic). Evergy Missouri West has added Dogwood Energy Center combined-cycle energy to its portfolio recently to improve its net energy position (and was unsuccessful convincing stakeholders to complete the acquisition of Persimmon Wind which would have added 100 MW/h of average annual energy). Due to expected large customer additions and the lead time needed to build new thermal generation, Evergy Missouri West has included some short duration reliance on market capacity to bridge the gap until its new resources are online. For illustration, the following chart shows the expected physical energy capability of the preferred plan using the assumption that thermal resources can generate their max capacity every hour they are available (netting out their planned and forced outage rates) and renewable resources can generate based on their expected capacity factor.

Evergy Missouri West Preferred Plan Supply Stack



This supply stack illustrates that Evergy Missouri West's average load is within the peaker range of its supply stack over the long-term, indicating that it will likely remain a net buyer in the energy market until it adds more resources, due to availability of cheaper energy supply in SPP. Even though SPP energy is currently forecasted to be more cost-effective than EMW's peaker resources, its simple-cycle gas and oil fleet provide an alternative to market energy and act as a heat rate hedge to mitigate market price risk. Evergy's long-term plan is intended to reduce economic reliance on SPP and ensure that Evergy Missouri West's fleet is a good physical and economic hedge for its customer needs. This is particularly important as the availability of excess capacity and energy is expected to decrease over time. Utilities and load serving entities in SPP and throughout the country are projecting high load growth (mostly datacenters), increased reliability needs, and long lead times and inflation in construction. As explained in the IRP, there is a long lead time to add generation resources – at least two to three years for renewables and storage and at least five years for new thermal resources. Evergy Missouri West is well positioned to grow its energy supply due to planning decisions made in the last few years, commitments to obtain turbines, land, materials, and contractors, and progress through regulatory proceedings.

OPC Comment 2: "Evergy Missouri West's New Preferred Plan Does Not Consider the Decreasing Availability of Excess Capacity and Interconnection Backlog in the SPP."

Response: Both of these are considered in the Preferred Plan. Evergy agrees that there is limited excess capacity available in SPP and it expects that trend to continue with increasing resource adequacy requirements and load growth over the next few years. Evergy Missouri West's resource plan does include some market capacity purchases in the next few years which were specifically informed by a deal that Evergy is negotiating. Evergy is confident it can procure around 250 MW of market capacity per year for five years based on these negotiations. However, future market capacity is otherwise limited in the resource plan to 20 MW per year.

Evergy also sees the interconnection backlog in SPP and has incorporated that constraint in the lead time to develop new resources in the plan. Evergy Missouri West currently has two solar projects awaiting CCN approval for 2027 commercial operation. The IRP Preferred Plan includes these projects, but the IRP modeling constrains the next solar, wind or battery resource additions to 2028 or later. The lead time for renewable and storage resources reflects that there are projects that are through the queue or almost through but have not begun construction because they are waiting for buyers. For new thermal resources, the Evergy Missouri West IRP included the projects awaiting CCN approval, including McNew, Viola, and Mullin Creek as 2029 and 2030 additions, but restricted new additions to 2031 and later. For new thermal resources, the lead time includes the interconnection queue, turbine delivery availability, and construction and permitting time.

OPC Comment 3: "Evergy Missouri West Has Not Modeled For Full Expected Large Customer Load Growth."

Response: OPC is correct in stating that Evergy Missouri West has not included the full EMW large customer pipeline in its base modeling. As explained in detail in the 2025 IRP Annual Update and in response to Staff Comment 1 above, EMW is approaching its Preferred Plan in a way that balances meeting the capacity and energy needs of customers that are further along in Evergy's internal planning requirements with considering the risks to the existing EMW retail base.

The 2025 IRP analysis developed nine alternative resource plans considering load growth scenarios. These planning scenarios and results were discussed in Section 10 of the IRP. Seven plans included additional large load customers: 50 MW Early (beginning ramp in 2028 and peaking in 2030), 150 MW Early, 250 MW Early, 50 MW Late (beginning ramp in 2031 and peaking in 2033), 150 MW Late, 250 MW Late, and the next large customer in the Evergy Missouri West

customer pipeline which ramps from 115 MW to 940 MW between 2028 and 2032. While none of these plans was selected as the Preferred Plan, Evergy Missouri West can pivot to one of these alternative plans if another large customer meets the criteria for inclusion in the base plan.

OPC Comment 4: "The Costs Evergy Missouri West Modeled in the Annual Update Do Not Properly Account for Known and Continually Increasing Costs for New Generation."

Response: Evergy Missouri West used the most recent cost estimates for McNew, Viola and Mullin Creek in the IRP Annual Update. These costs also match the costs provided in the CCN case as filed in the Unanimous Stipulation and Agreement in EA-2025-0075. For new builds after 2030, the base cost was adjusted for inflation and technological improvement. Construction costs were also identified as a critical uncertain factor in the IRP and the economic analysis of the resource plans considered cost increases/decreases of 25%.

OPC Comment 5: "Evergy Missouri West's 2025 New Preferred Plan is Limited by Capital Budget Spending Constraints."

Response: Evergy Missouri West does prefer to limit the resource additions each year of the plan so that it can select or develop the most viable economic projects and moderate rate impacts to customers from adding assets to rate base. Evergy also prioritizes balance sheet stability, which is important to customers because Evergy's credit rating affects its cost of capital, which is used in setting rates to customers. However, Evergy's highest priority is meeting customer needs and managing future risks at lowest cost. Evergy does not believe that capital budget is the limiting factor relating to OPC's concerns. Evergy Missouri West does not have the option to add thermal resources before 2029. There were no thermal resources offered into Evergy's 2023 all-source RFP. Evergy Missouri West executed on the Dogwood Energy Center partial ownership opportunity that was offered into its 2022 RFP. Evergy Missouri West is self-developing three natural-gas-fired resources to meet customer needs. Increasing the capital budget will not allow an earlier commercial operation of these resources, because their timing is limited by materials

availability as well as timelines for construction, interconnection, permitting, and regulatory approvals. The need for new natural gas generation was identified in the 2023 IRP, and confirmed in the 2024 Triennial IRP as forecasted large load growth and projected reliability needs continued to increase. Another 50% combined-cycle gas turbine for 2030 was added to the resource plan in the 2025 IRP, driven primarily by additional discussions and planning with a large load customer. The addition of this resource was only possible because a 50% share was unallocated from a project with development already underway to meet Evergy Kansas Central's resource plan. After these three resources, the next possible thermal resource development opportunity is expected to be for 2031 commercial operation (based on these same timelines). Based on constraints in Evergy's modeling, Evergy Missouri West could select to develop a 2031 CCGT or SCGT; however, the current load forecast does not show the need for another thermal project for many years. EMW's plan for new generation resources is based on a forward-looking timeline, rather than being driven by capital constraints.

OPC Comment 6: "Evergy Missouri West Failed to Consider Other Ways to Utilize the Jeffrey Units, Aside from its Intention to Convert Unit 2 and Retire Unit 3."

Response: Evergy Missouri West owns an 8% share of each Jeffrey resource. Evergy Missouri West has taken a balanced approach in planning, recognizing that the Jeffrey resources are aging and have experienced prolonged outages in the past few years. Evergy Missouri West is planning for the retirement of Jeffrey 3 as a base planning assumption to account for the risk of operational issues which could require long-lead-time or expensive repairs, and the risk of needing to install a costly SCR system to comply with environmental mandates. By incorporating this retirement, Evergy Missouri West plans to build or procure the capacity needed to replace the resource or a similarly sized resource (Jeffrey 2 or Jeffrey 1). Options for retiring Jeffrey 2 in 2030 or continuing coal operation through 2039 or converting to natural gas operation in 2030 were

analyzed in this IRP. The Preferred Plan selected converting Jeffrey 2 to natural gas, consistent with Evergy Kansas Central's preferred plan, and Evergy Kansas Central owns 92% of the facility. Evergy found this to be cost effective and practical. Evergy can leverage the natural gas infrastructure to retain Jeffrey capacity and will have flexibility to replace the resource with new natural gas generation if needed. Evergy will continue to assess the planning outlook (load growth, costs, environmental rules), and the operational condition of the Jeffrey resources prior to final retirement decisions.

OPC Comment 7: "Evergy Missouri West's Reliance on Demand Side Management and Demand Response is Inconsistent with the Workpapers."

Response: The assertions by OPC in its comments are incorrect.

OPC inquired about these issues in Data Requests #8005 and #8007. In its responses, Evergy stated that the data presented in the IRP ties directly to its workpapers. Evergy further stated that any apparent differences are due to the inclusion of different program years or subsets of DSM resources. Specifically:

- The "DSM" value in the 2025 Preferred Plan ACAA Capacity Balance Sheet on Row 69 represents the peak demand reduction from the MEEIA Cycle 4 programs' energy efficiency and demand response peak demand reductions as approved by the Commission in Case No. EO-2023-0369/0370. Additionally, it includes the TOU impacts derived from the 2023 DSM Market Potential Study which were adjusted downward by 70% thereby resulting in 30% of the potential study's forecasted impact from TOU rates. This adjustment was made to better align with the Commission's final order in Case No. ER-2022-0129/0130 that approved the peak adjustment charge rate as the default TOU rate. Because the peak adjustment

rate reflects a much lower price differential than the modeled TOU rates in the potential study, a downward adjustment was necessary.

- Furthermore, the second "DSM" value in Table 4 of the 2025 IRP Annual Report reflects the remaining MEEIA Cycle 3 PY5 impacts as of the forecast date.

The workpapers and DSM values within the IRP are consistent and have not previously been refuted to be incorrect. In its comments, OPC misstates the source of Evergy's DSM projections for the 2025 IRP Update. Evergy did not rely upon the 2023 Market Potential Study for its DSM projections included within its 2025 IRP Update. As explained above and in Data Requests #8005 and #8007, the DSM and DR projections in the 2025 IRP Update are based on Commission approved programs within Evergy's MEEIA Cycle 4 portfolio.

OPC may be conflating how DSM was included in the 2025 IRP Update as compared to previous IRP Updates/Annual Filings. In previous filings, Evergy has relied upon the potential study for future DSM impacts. However, Evergy modified its 2025 IRP DSM planning profile to reflect (1) the lower, approved MEEIA Cycle 4 portfolio (budget, energy, demand and cycle duration) and (2) the uncertainty of future MEEIA programs given the tenor of Staff, OPC and Commission comments during the filing, as well as the terms of the Stipulation and Agreement.

Therefore, EMW did not model any additional energy efficiency programs after the approved cycle ends in 2026, but it did model a continuation of the approved MEEIA Cycle 4 level of demand response programs through the end of the IRP planning horizon.

With respect to TOU rates, the potential demand reduction estimated from TOU rates was initially informed by the 2023 Potential Study. However, Evergy adjusted the TOU peak demand downward by 70% in the 2025 IRP Update to reflect a more conservative and realistic estimate as

described earlier. This adjustment is clearly documented in the 2025 IRP Update and in the referenced data requests.

To Evergy's knowledge, no other party has called the 2023 Market Potential Study into question as OPC alleges in its comments, other than OPC in its 2024 IRP comments where Dr. Marke states that "neither of which [TOU or DSM peak demand reduction] are likely to materialize given Evergy Metro's and West's roll-out of present TOU rates and their filed MEEIA applications[1]". OPC's comment is moot and the potential study is irrelevant with respect to DSM as represented in the 2025 IRP Update given that Evergy included the impacts from approved DSM programs and that Evergy adjusted the TOU impact from the potential study downward to account for the low differential in peak adjustment rate.

Evergy does not agree with OPC's claim that the 2023 Market Potential Study "has been called into question". OPC is the only party to raise such concerns, and it has not provided any substantive evidence to support that position. Moreover, OPC had the opportunity to participate in the development of the study and did not raise these concerns during that process.

OPC Comment 8: "Concerns with the Crossroads Generating Facility Exist."

Response: EMW's 2025 IRP studied plans that included both Crossroads remaining in the fleet beyond the current transmission contract expiration date and a scenario that assumed Crossroads was retired at the end of the current transmission agreement. As alluded to in OPC's comment, the relocation study resulting from the Stipulation and Agreement in Case Number ER-2024-0189 was not complete as of the filing of EMW's 2025 IRP. It was not possible to study an alternative resource plan scenario that contemplated disassembling and relocating Crossroads due

[1] Case Nos. EO-2024-0153/EO-2024-0154, Memorandum on Comments on Evergy's Triennial Integrated Resource Plans, August 29, 2024, Page 11

to the evaluation and outcomes associated with the decision process outlined in the Stipulation and Agreement being incomplete at the time of the IRP filing.

Related to Evergy Missouri Metro

OPC Comment 1: "The New Preferred Plan is Unreasonable: Evergy Metro's new preferred plan, like its 2024 IRP Triennial preferred plan, relies on the increasingly volatile SPP energy market by failing to meet a significant portion of its customer's energy needs thus placing the risk of unpredictable and extreme purchased power costs on its customers."

Response: OPC's assertion that Evergy Metro is not planning to meet customers energy requirements is false. The economic analysis of the resource plans demonstrates that the ability to buy and sell energy to and from the market is beneficial. The chart OPC used from the IRP shows that Evergy Metro may buy low-cost energy from the SPP market to reduce the production cost to serve load and meet expected carbon reduction constraints. The future SPP market pricing assumptions are based in part on the addition of new resources by Evergy and other utilities, including renewables and storage with zero or negative energy costs. Availability of low-cost market energy does not mean that Evergy Metro will not have physical generation available when needed to cover customer energy.

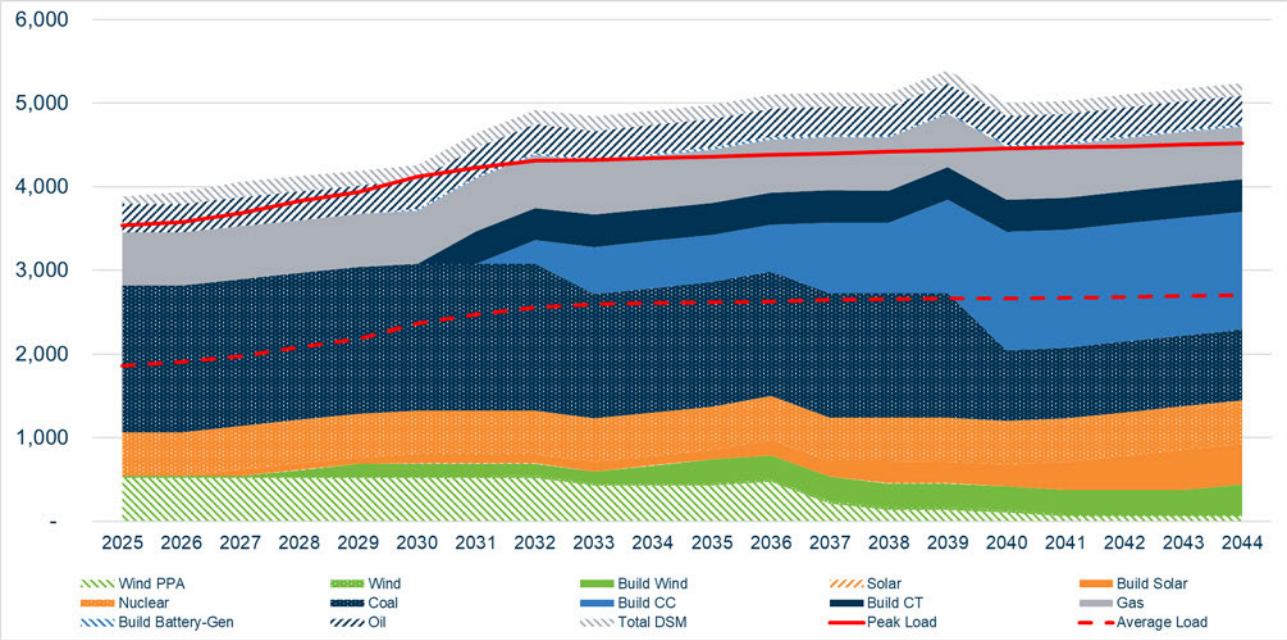
From a physical energy capability standpoint, Evergy (and each utility) plans to meet or exceed expected SPP planning reserve margins in every year of the plan. SPP sets reserve margins by performing a Loss of Load Expectation (LOLE) study, resulting in requirements that each utility maintain enough accredited capacity such that SPP expects to lose load on average one day in ten years, which is the industry planning standard. SPP in the past couple of years has undertaken comprehensive studies and stakeholder processes to refine its assessment of reliability needs and resource contributions to meeting those needs. Evergy incorporated the most current information into its capacity needs assessment in the 2025 Annual Update. Meeting the capacity need in every

planning year also means that physical energy is expected to be available at all times to meet load, consistent with the reliability standard.

From an economic energy standpoint, as explained in the IRP, beginning in 2031, Evergy Metro was limited to 300 MW per hour of energy purchases or sales (net of load), representing approximately 15% of average load or 10% of peak. This planning assumption balances the benefits expected from participation in the SPP market, while also prompting Evergy Missouri Metro to attain a future resource portfolio that provides a physical and economic hedge. Evergy Metro was also limited to 30 MW of market capacity after 2031, so that future capacity needs will be filled by new resources that have associated energy profiles. The market purchase constraints simply mean that, when an optimal resource mix is selected, it is selected not only because it is the lowest-cost way to meet Resource Adequacy Requirements, but also because it is the lowest-cost way to produce energy which aligns closely (within 10-15%) with the utility's customers' hourly energy needs. On the market sale side, it also means that an optimal plan will not be developed solely because of the revenues it could generate from selling energy in excess of customer needs. In short, this constraint ensures that a resource portfolio is developed based on specific customer energy needs and not just forecasted energy market prices. This constraint is phased in over time because it is most relevant in the second decade of the planning horizon when expected fossil retirements across the SPP and within Evergy's fleet, combined with the expiration of Evergy's wind PPAs, are expected to significantly change Evergy's net position in the SPP energy market.

For illustration, the following chart shows the expected physical energy capability of the preferred plan using the assumption that thermal resources can generate their max capacity every hour they are available (netting out their planned and forced outage rates) and renewable resources can generate based on their expected capacity factor.

Evergy Metro Preferred Plan Supply Stack



This supply stack illustrates that Evergy Metro's average load is within the coal range of its supply stack through 2039. As new natural gas resources come online, they may also be a source of baseload or intermediate energy to meet variations in load and manage carbon emission reductions. In contrast with Evergy Missouri West, there are no years in the planning horizon where Evergy Metro's forecast peak exceeds its supply stack.

OPC Comment 2: "Evergy Metro Has Not Modeled For Full Expected Large Customer Load Growth."

Response: OPC is correct in stating that Evergy Metro has not included the full Metro large customer pipeline in its base modeling. As explained in detail in the 2025 IRP Annual Update and in response to Staff Comment 1 above, Metro is approaching its Preferred Plan that balances meeting the capacity and energy needs of customers that are further along in Evergy's internal planning requirements with considering the risks to the existing Metro retail base.

The 2025 IRP analysis developed nine alternative resource plans considering load growth scenarios. These planning scenarios and results were discussed in Section 10 of the IRP. Seven

plans included additional large load customers: 50 MW Early (beginning ramp in 2028 and peaking in 2030), 150 MW Early, 250 MW Early, 50 MW Late (beginning ramp in 2031 and peaking in 2033), 150 MW Late, 250 MW Late, and the next large customer in the Evergy Metro customer pipeline which ramps from 150 MW to 250 MW between 2028 and 2029. While none of these plans was selected as the Preferred Plan, Evergy Metro can pivot to one of these alternative plans if another large customer meets the criteria for inclusion in the base plan.

OPC Comment 3: "The Costs Evergy Metro Modeled in the Annual Update Do Not Properly Account for Known and Continually Increasing Costs for New Generation."

Response: Evergy Metro used the most recent cost estimates for McNew, Viola and Mullin Creek as the base costs for combined cycle and simple cycle gas turbines in the IRP Annual Update. These costs also match the costs provided in the Missouri West CCN case as filed in the Unanimous Stipulation and Agreement in EA-2025-0075. For new builds after 2030, the base cost was adjusted for inflation and technological improvement. Construction costs were also identified as a critical uncertain factor in the IRP and the economic analysis of the resource plans considered cost increases/decreases of 25%.

OPC Comment 4: "Evergy Metro's 2025 New Preferred Plan is Limited by Capital Budget Spending Constraints."

Response: Evergy Metro does prefer to limit the resource additions each year of the plan so that it can select or develop the most viable economic projects and moderate rate impacts to customers from adding assets to rate base. Evergy also prioritizes balance sheet stability which is important to customers because Evergy's credit rating affects its cost of capital which is used in setting rates to customers. However, Evergy's highest priority is meeting customer needs and managing future risks at lowest cost. Evergy does not believe that capital budget is the limiting factor relating to OPC's concerns. Evergy Metro, like its affiliate utilities and utilities around the country, is experiencing opportunities for dramatic load growth from large customers. This was

not anticipated a few years ago. In fact, Evergy was receiving push back from stakeholders that base load growth assumptions were too optimistic due to the weak or flat load growth seen over the past twenty years. Now Evergy has a large pipeline of potential customers, and other utilities are also experiencing high demand for new customers to locate in their regions. Meeting this load growth will require a massive buildout of new resources. Evergy Metro is planning to meet committed loads. However, the high demand for new thermal resources has increased the lead-time needed to build them and the costs. Evergy Metro's constraint to add new natural-gas-fired generation is time, not capital budget.

OPC Comment 5: "Evergy Metro's Reliance on Demand Side Management and Demand Response is Inconsistent with the Workpapers."

Response: The assertions by OPC in its comments are incorrect. OPC inquired about these issues in Data Requests #8005 and #8007. In its responses, Evergy stated that the data presented in the IRP ties directly to its workpapers. Evergy further stated that any apparent differences are due to the inclusion of different program years or subsets of DSM resources.

Specifically:

- The "DSM" value in the 2025 Preferred Plan ACAA Capacity Balance Sheet on Row 69 represents the peak demand reduction from the MEEIA Cycle 4 programs' energy efficiency and demand response peak demand reductions as approved by the Commission in Case No. EO-2023-0369/0370. Additionally, it includes the TOU impacts derived from the 2023 DSM Market Potential Study which were adjusted downward by 70% thereby resulting in 30% of the potential study's forecasted impact from TOU rates. This adjustment was made to better align with the Commission's final order in Case No. ER-2022-0129/0130 that approved the peak adjustment charge rate as the default TOU rate. Because the peak adjustment

rate reflects a much lower price differential than the modeled TOU rates in the potential study, a downward adjustment was necessary.

- Furthermore, the second "DSM" value in Table 4 of the 2025 IRP Annual Report reflects the remaining MEEIA Cycle 3 PY5 impacts as of the forecast date.
- The workpapers and DSM values within the IRP are consistent and have not previously been refuted to be incorrect.

In its comments, OPC misstates the source Evergy's DSM projections for the 2025 IRP Update. Evergy did not rely upon the 2023 Market Potential Study for its DSM projections included within its 2025 IRP Update. As explained above and in Data Requests #8005 and #8007, the DSM and DR projections in the 2025 IRP Update are based on Commission approved programs within Evergy's MEEIA Cycle 4 portfolio.

OPC may be conflating how DSM was included in the 2025 IRP Update as compared to previous IRP Updates/Annual Filings. In previous filings, Evergy has relied upon the potential study for future DSM impacts. However, Evergy modified its 2025 IRP DSM planning profile to reflect (1) the lower, approved MEEIA Cycle 4 portfolio (budget, energy, demand and cycle duration) and (2) the uncertainty of future MEEIA programs given the tenor of Staff, OPC and Commission comments during the filing, as well as the terms of the Stipulation and Agreement. Therefore, EMW did not model any additional energy efficiency programs after the approved cycle ends in 2026. It also modeled a continuation of the approved MEEIA Cycle 4 level of demand response programs through the end of the IRP planning horizon.

With respect to TOU rates, the potential demand reduction estimated from TOU rates were initially informed by the 2023 Potential Study. However, Evergy adjusted the TOU peak demand downward by 70% in the 2025 IRP Update to reflect a more conservative and realistic estimate as

described earlier. This adjustment is clearly documented in the 2025 IRP Update and in the referenced data requests.

To Evergy's knowledge, no other party has called the 2023 Market Potential Study into question as OPC alleges in its comments, other than OPC in its 2024 IRP comments where Dr. Marke states that "neither of which [TOU or DSM peak demand reduction] are likely to materialize given Evergy Metro's and West's roll-out of present TOU rates and their filed MEEIA applications[2]". OPC's comment is moot and the potential study is irrelevant with respect to DSM as represented in the 2025 IRP Update given that Evergy included the impacts from approved DSM programs and that Evergy adjusted the TOU impact from the potential study downward to account for the low differential in peak adjustment rate.

Evergy does not agree with OPC's claim that the 2023 Market Potential Study "has been called into question". OPC is the only party to raise such concerns, and it has not provided any substantive evidence to support that position. Moreover, OPC had the opportunity to participate in the development of the study and did not raise these concerns during that process.

NEE

NEE Comment 1: Evergy should update the approach to capital cost scenario weighting to reflect the higher likelihood of base and high scenarios.

Response: Evergy has observed a volatile and increasing cost environment over the past few years. There have been varying opinions as to whether inflation, which seemed to be driven by the global pandemic, Ukraine war and other supply chain issues, would subside. Natural gas and other commodity prices have fallen over the last couple of years from highs during these times, however construction and materials costs forecasts have continued to rise. Recent announcements

[2] Case Nos. EO-2024-0153/EO-2024-0154, Memorandum on Comments on Evergy's Triennial Integrated Resource Plans, August 29, 2024, Page 11

of large load demand have likely contributed to the sharp increase in cost and lead times for new natural-gas-fired resources. Evergy has updated base cost assumptions for these resources in the IRP consistent with development experience. With this higher baseline, it is unclear whether the future forecast risk should be biased to higher probabilities of cost increases. Evergy believes that the IRP assumptions are a reasonable risk assessment but can continue to work with stakeholders and assess market conditions to determine whether probabilities should be skewed towards higher inflation risk.

NEE Comment 2: Evergy should provide clarity around its approach to new wind build assumptions, and consider a broader use of submitted bids to include lower capacity factor and include all COD submissions.

Response: Evergy does not agree this is a concern or deficiency. Evergy used pricing for available new build resources from its most recent 2023 All-Source RFP when developing the wind cost assumptions used in the 2025 annual update to the IRP. These prices were reflective of the capital costs required to build the resources. The IRP does factor in ongoing operations and maintenance costs for the resources, but the new-build table is only reflective of the capital needs for construction.

NEE Comment 3: Evergy should update natural gas price forecasts and raise the risk weighting of high-case gas price scenarios.

Response: Evergy used the most up-to-date natural gas price data at the time of preparing and filing the 2025 IRPs and will continue to do so in subsequent IRPs. There is no reason to update or make changes to the natural gas price forecasts used in the 2025 IRP. Additionally, Evergy's current risk weighting of natural gas prices across the low, mid, and high levels is informed by historical prices and future expected prices and the Company does not agree that the IRP should raise the risk weighting of high-case gas price scenarios.

NEE Comment 4: Evergy should model a wider variety of ownership structures when considering new thermal plants.

Response: Evergy does not agree this is a concern or deficiency. Evergy considers reasonable outcomes of shared ownership, reflective at a 50% ownership level or full ownership at a 100% level. Evergy must be compliant with the resource adequacy rules of the SPP and the Commission has recently acknowledged Evergy's plan to own and build new capacity. Modeling different ownership structures only pushes Evergy to solve to zero excess capacity under the resource adequacy rules. This situation presents undue risk to our customers as minor changes in SPP accreditation methodology could have Evergy utilities dip below their supply side obligations.

NEE Comment 5: Evergy's IRP should address fair adjustment clause cost allocation that considers which customers' new loads may be causing increased fuel costs.

Response: Evergy's IRP process includes the full capital, operating, and fuel cost estimates to meet full retail load. It does not attempt to allocate any of these costs to specific customers. Generally, this is handled via the established rate case process. Additionally, there is an active docket for Evergy's proposed new Large Load Power Service (LLPS) tariff portfolio offerings that is the better arena to discuss fuel cost causation and fair cost allocation.

NEE Comment 6: Evergy should include updated SERVM analysis to ensure portfolios meet reliability criteria as large loads are added.

Response: Evergy currently utilizes SERVM in its resource planning process to ensure portfolios meet reliability criteria and to track the SPP process which sets reserve margins and resource accreditation rules. The Company plans to continue leveraging SERVM analysis as more large loads are studied and plans to include in future resource plan filings.

NEE Comment 7: The Commission should establish a quarterly large load reporting requirement within the IRP to provide valuable and current information to the Commission and the Company.

Response: NEE's comment regarding Large Load Pipeline Reporting would be better suited for EMW's open case where it has proposed a new Large Load Power Service tariff (Case No. EO-2025-0154).

NEE Comment 8: The Commission and Evergy should clarify interconnection requirements whether the outlined Transmission Protection Requirements apply to large loads and which other specific studies are required for large loads, such as whether harmonic distortion, voltage flicker, power factor, voltage fluctuation, and ferroresonance risk assessment are formally required for large load interconnection requests, and make modeling requirements explicit including specifying required types of modeling data.

Response: The Company follows all SPP and NERC requirements to ensure continued reliability of the transmission system following the interconnection of large loads. The Company's requirements are contained in the Facility Interconnection Requirements posted publicly on Evergy's OASIS site.

RENEW MISSOURI

Renew Comment 1: The load forecasts in Evergy IRP update are less than transparent and clear.

Response: Please reference Evergy's response to Staff comment 1 and OPC comment 3.

Renew Comment 2: Renew Missouri is alarmed by the investments in new natural gas plants included in Evergy's Preferred Plan.

Response: The Company's IRP modeling and report sufficiently detail the balanced approach to solving for resources to meet load obligation throughout the 20-year planning period. The modeling considers many different technologies and analyzes the trade-offs across each resource type. Load growth and resource adequacy are both driving incremental resource needs, and the Company stands by the Preferred Plan's balanced approach at adding both firm, dispatchable resources alongside new clean energy resources.

Renew Comment 3: Evergy should seek the full ITC for energy storage, a plan which hinges on three factors: *when* the grid-scale energy storage facilities are placed in service, *where* the facilities are located, and *whether* the projects meet prevailing wage and apprenticeship criteria.

Response: Evergy modeled storage resources with full ITC, including the additional ten percent (forty percent total credit) as options in the resource plan for addition in 2029-2033 consistent with timing of potential retirements and site reuse availability.

Renew Comment 4: Regarding consideration of Power Purchase Agreements ("PPAs"), Renew Missouri encourages Evergy to pursue PPAs when and where it makes economic sense.

Response: The Chapter 22 IRP rules do call out either bilateral or market purchases of capacity or energy as supply-side resource options which can be evaluated, but the Company's position is that the purpose of the IRP is to evaluate generic new resource options and not to determine ownership or financial structure. With that in mind, the Company believes ownership of new resources is the appropriate "default" option to represent new resources which are being evaluated. Upon implementing the Preferred Plan, Evergy considers both ownership and PPA options in its Request For Proposal (RFP) process. If the operational and economic analysis supports choosing a PPA over the ownership option, Evergy would make this decision during the Preferred Plan implementation process and not in the IRP.

Renew Comment 5: *Distributed Energy Resources*

Virtual Power Plants. As technology continues to advance, new opportunities will proliferate for electric providers to interact with customer owned DERs, including residential battery storage systems and electric vehicle batteries.

Distributed Solar. Regarding customer-owned solar, Renew Missouri would like to reiterate here our argument that all residential rate design options be offered to all customers, as we have said in recent cases before the Commission.

Response: Largely, Evergy does not dispute the comments provided by Renew regarding DERs. Regarding rates available to customers who own solar, on June 11, 2025, the MO Commission issued an order that provides access to Time of Use rates to residential net metering

customers, Evergy has implemented many of the programs that Renew provides examples. Below is an example but not an exhaustive list of Evergy's DER programs.

- Evergy has over 100k customers participating in its Missouri demand response programs, which includes programmable thermostats and allows business customers to reduce load through back-up generation, manual processes, or building management controls, for example.
- Evergy has a Community Solar program in Missouri for low-income customers.
- Evergy has deployed a residential battery storage pilot with 50 customers, which seeks to evaluate the role of battery energy storage systems in producing grid impacts to the system and resiliency and bill savings to participants. The Company is evaluating use case impacts by various DER types (EV, Solar PV, Smart Thermostat) and time varying rates to understand how customers interact with DERs based on charge and discharge strategies. The Company's pilot will conclude in Q1, 2026 and will provide a report outlining its findings and recommendation. Based on the outcome of the pilot the Company will collaborate with stakeholders to determine next steps post-pilot.

Renew Comment 6: In light of the new forecast for large customer load it would be prudent for the Company to include third party aggregators of DERs in its IRP to have more paths available to adequately serve the forecasted growth.

Response: The Company has created a process framework for the utilization of its Demand Response programs that mitigates monthly and annual summer peaks and supports local and regional (RTO) grid constraints during elevated system conditions. The Company has a diverse population of behind the meter (BTM) technologies and customer segments that participate in the program. Each technology and customer type has its own unique load flexibility threshold

parameters that the Company seeks to optimize to utilize without causing customer fatigue and program churn.

The Company collaborates with market actors and aggregators that seek to support retail demand response programs, leverage their customer relationships, and support resource adequacy and reliability for all customers.

SIERRA CLUB

Sierra Club Comment 1: The IRP fails to consider the early retirement of Jeffrey 1 despite the unit's abysmal performance, most notably its lack of reliability.

Response: Evergy Missouri West owns an 8% share of Jeffrey 1. Due to its small share, it has limited control over the Jeffrey 1 retirement decision and also loss or continued operation of Jeffrey 1 has a relatively small impact on the future resource plan. Evergy Missouri West has taken a balanced approach in planning, recognizing that the Jeffrey resources are aging and have experienced prolonged outages in the past few years. Evergy Missouri West is planning for the retirement of Jeffrey 3 as a base planning assumption to account for the risk of operational issues which could require long-lead-time or expensive repairs, and the risk of needing to install a costly SCR system to comply with environmental mandates. By incorporating this retirement, Evergy Missouri West plans to build or procure the capacity needed to replace the resource or a similarly sized resource (Jeffrey 2 or Jeffrey 1). Evergy Missouri West also accounted for impacts of historical outages on capacity accreditation by incorporating performance-based accreditation rules in SPP in the resource plan.

Sierra Club Comment 2: The IRP should evaluate earlier retirement and gas conversion for other units that have been mostly uneconomic on the SPP energy market and/or unreliable.

Response: The IRP solves for the lowest total cost resource plan to meet future energy and capacity needs, considering production costs and fixed costs. Due to increasing resource adequacy needs, load growth, and the high costs of building new resources, as compared to the going-forward

costs of maintaining the coal fleet, there are not expected to be many economic retirement opportunities. However, Evergy Missouri West recognizes that there are risks beyond the expected budget which are not easily quantified in an economic model. Evergy's coal fleet has had recent failures due to age, increased cycling in the market, and extreme weather. In recent experience, there has been a long lead time on replacement parts, exacerbating outage timelines. Either expensive repairs or future compliance with environmental mandates could force future retirement decisions. Additionally, deterioration in operational performance will reduce future capacity accreditation under SPP's new performance-based accreditation policies. Evergy plans to add resources to meet load growth and cover these coal contingencies including potential retirements. Evergy is planning to convert Jeffrey 2 to natural gas operation in 2030 to balance operational risk and mitigate the potential need for future selective catalytic reduction investment while preserving capacity to meet load growth and increased reliability needs. Evergy expects the Jeffrey site to be a prime location for natural gas resources, and building gas infrastructure to facilitate conversion at Jeffrey 2 will provide valuable flexibility and optionality to customers. Evergy will continue to evaluate these types of opportunities as they make sense.

Sierra Club Comment 3: The IRP should use the long-term forecasts directly when assuming new resource costs; or at a bare minimum consider the** [redacted] ** as a starting point.

Response: Evergy does not agree to use non-transactable forecasts for new resource costs in its IRP, particularly for resource needs in the short-term development window. Evergy uses the NREL and EIA analysis to estimate technological improvement cost curves for future resources, but believes RFP offers and commercial development experience provide the most accurate costs.

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Sierra Club Comment 4: The IRP should model ** [redacted] **

Response: As previously stated by the Company in its 2021 Triennial Compliance Filings, docket No. EO-2021-0035 and EO-2021-0036, Evergy and NEE disagree on whether PPAs should be modeled as discrete resource options. The Chapter 22 IRP rules do call out either bilateral or market purchases of capacity or energy as supply-side resource options which can be evaluated, but the Company's position is that the purpose of the IRP is to evaluate generic new resource options and not to determine ownership or financial structure. With that in mind, the Company believes ownership of new resources is the appropriate "default" option to represent new resources which are being evaluated.[4]

In its March 9, 2022, order concerning this matter (*Order Approving 2021 Triennial Integrated Resource Plan)* the Commission found:

> The Commission agrees with Evergy and will not require any further response by the Companies to the concern of whether PPA should be modeled as discrete resource options.[5]

Sierra Club Comment 5: The IRP should relax energy market access constraints and allow for more than 10 or 15 percent of all annual energy to be purchased and sold.

Response: Please reference the response to OPC Comment 1. The market constraints are intended to consider the expected benefits of market participation while also ensuring that Evergy utilities plan for a future resource mix that is a good physical and economic hedge for customer energy needs.

Sierra Club Comment 6: The IRP should address the congestion in western Kansas and evaluate how it affects the economics of its plans, most notably the new gas resources.

Response: Evergy, with support from outside consultants, has used the SPP integrated transmission planning (ITP) models to generate market price forecasts for the IRP modeling in the past few IRPs. The Company expects to continue to use this process with updated transmission

plans for future IRPs. These SPP ITP models provide a stakeholder-informed view of the future resource mix and the expected future transmission topology considering identified infrastructure projects. Evergy's practice has been to use an average system generation pricing point (Metro Generation Hub) for new resources other than wind and storage located in the wind region. The nodes for the new resources have not been established yet and are not included in the completed ITP models. Evergy has applied for interconnection and expects the SPP Definitive Interconnection System Impact Study process to identify the interconnection facilities need to tie into the high voltage grid and network upgrades to support firm dispatchable power delivery. Once the new gas resources are modeled in the market, Evergy will consider their pricing nodes in future modeling.

WHEREFORE, the Company submits this response, as detailed above.

Respectfully submitted,

/s/ Roger W. Steiner

Roger W. Steiner, #39586
Cole Bailey, #77628
Evergy, Inc.
1200 Main Street
Kansas City, MO 64105
Phone: (816) 556-2314
roger.steiner@evergy.com
cole.bailey@evergy.com

ATTORNEYS FOR EVERGY MISSOURI METRO AND EVERGY MISSOURI WEST

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 20th day of June 2025.

/s/ Roger W. Steiner

Roger W. Steiner