BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Evergy Metro, Inc. d/b/a Evergy Missouri Metro's 2023 Integrated Resource Plan Annual Update Filing	)	File No. EO-2023-0212
In the Matter of Evergy Missouri West, Inc. d/b/a Evergy Missouri West's 2023 Integrated Resource Plan Annual Update Filing	)	File No. EO-2023-0213

SIERRA CLUB'S COMMENTS ON EVERGY'S 2023 INTEGRATED RESOURCE PLAN ANNUAL UPDATE

PUBLIC VERSION

Pursuant to 20 CSR 4240-22.080, Sierra Club respectfully submits these comments on the 2023 Integrated Resource Plan ("IRP") Annual Update filed by Evergy Metro, Inc. and Evergy Missouri West, Inc. (together, "Evergy" or the "Company"). Sierra Club respectfully requests that the Company agree to fix, or the Commission order the Company to fix in its 2024 triennial IRP, the deficiencies identified herein.

The United States is in the midst of a monumental shift in energy production, and thus there must be a concomitant shift in utility planning. Evergy's Annual Update, replete with magical thinking and overly optimistic assumptions, does not meet the task at hand. Utility planning is not a box-checking exercise; using more realistic, data-driven assumptions will lead to better outcomes for all stakeholders, especially ratepayers. Regrettably, Evergy used several unsupportable assumptions in its modeling, similar to its 2022 IRP Annual Update, which again puts a thumb on the scale in favor of expensive fossil-fired generation. If this pattern continues, ratepayers can likely expect to face incessantly rising rates caused by stranded assets and inefficient generation that could be curtailed by more realistic planning. The Commission has an opportunity to compel Evergy to course correct, and it should do so in this proceeding.

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I. Deficiency 1: Evergy did not adequately model coal unit operations, leading the modeling to be biased towards keeping units on-line.

We are pleased that Evergy is using capacity expansion modeling in this update, but we are concerned that the setup of the modeling and the assumptions used in that model bias the results towards keeping coal units online and building new gas plants. In this section, we discuss how the modeling is biased towards keeping coal units on-line in two ways: 1) the Company has only tested a limited amount of coal retirements, and 2) the Company has [redacted] of some of its units. In the next section, we discuss our concerns with the methodology and assumptions leading to unfair selection of new gas builds over cleaner resource options.

Although the Company is conducting capacity expansion modeling in order to select new resource builds, the coal retirement dates are still pre-determined and the options modeled are quite limited. Table 1 shows the retirement years selected in each of the Evergy-wide plans. The least-cost plan (BIBA) modeled by Evergy is shown in the first row, with subsequent plans increasing in cost. This BIBA plan, used to develop the preferred plans for its utilities, includes the following for its coal units:

- Retirement of Lawrence 4 in 2028;
- Retirement of coal burning at Lawrence 5 in 2028 with possible gas conversion;
- Retirement of Jeffrey 1 in 2039 and units 2 and 3 in 2030;
- Retirement of LaCygne 1 in 2032 and unit 2 in 2039;
- Retirement of Iatan 1 in 2039; and
- No planned retirement for Hawthorn 5 or Iatan 2.

Table 1: Evergy-wide Coal Retirement Plans from lowest to highest cost[1]

Plan	Lawrence 5	Lawrence 4	Jeffrey 1	Jeffery 2	Jeffrey 3	Lake Road 4/6	LaCygne 1	Iatan 1	LaCygne 2	Hawthorn 5
BIBA	2028	2028	2039	2030	2030	2030	2032	2039	2039	
BCAA	2023	2024	2039	2030	2030	2030	2032	2039	2039	
BBBA	2028	2028	2039	2039	2030	2030	2032	2039	2039	
BAAA	2023	2024	2039	2039	2030	2030	2032	2039	2039	
BIBD	2028	2028	2039	2030	2030	2030	2032	2039	2039	
BDAA	2023	2024	2039	2039	2030	2030	2032	2030	2039	
BGAA	2023	2024	2030	2030	2030	2030	2032	2039	2039	
BADA	2023	2024	2039	2039	2029	2030	2032	2039	2039	
BACA	2023	2024	2039	2039	2030	2030	2032	2039	2039	2026
BAEA	2023	2024	2039	2038	2029	2030	2032	2039	2039	
BEAA	2023	2024	2039	2039	2030	2030	2032	2039	2039	2027
BHAA	2028	2028				2030				
BIBE	2023	2024	2039	2039	2030	2030	2032	2039	2032	

Taken at face value, Evergy's modeling results make a compelling case for retiring Jeffrey unit 2 in 2030 compared to 2039, but the Company did not model a pre-2030 date for that unit nor for Jeffrey units 1 or 3. Thus, we do not have any information on whether a pre-2030 retirement would provide additional cost savings for any of the Jeffrey units. This is particularly troubling because the Jeffrey units have operated at low levels so far this year—as shown below in Table 2. Most notably, Jeffrey unit 3 did not operate from October 2, 2022 through at least June 30, 2023—the latest date that data was available—as it was forced off-line by a fire.[2] The other two units have each operated for less than a third of the time so far this year. These are indicators that the units are struggling either mechanically, economically, or both. These units should be considered for pre-2030 retirement.

[1] Evergy MO West 2022 IRP Annual Update, p. 72-77. One plan was redacted by Evergy and excluded from this table.

[2] EPA CAMD data. Hourly gross load, available at: https://campd.epa.gov/data; Sarah Motter, "Fire at Jeffrey Energy Center knocks unit offline," WIBW, (Oct. 3, 2022), available at: https://www.wibw.com/2022/10/03/fire-jeffrey-energy-center-knocks-unit-offline/

Table 2: Capacity Factors of Evergy's Coal Units (%)[3]

Capacity Factor	2018	2019	2020	2021	2022	2023
LaCygne 1	34%	40%	37%	43%	50%	43%
LaCygne 2	55%	54%	61%	61%	56%	60%
Lawrence 4	77%	54%	50%	52%	45%	29%
Lawrence 5	63%	58%	44%	42%	47%	36%
Jeffrey 1	66%	32%	36%	52%	63%	30%
Jeffrey 2	57%	37%	34%	49%	54%	32%
Jeffrey 3	40%	43%	43%	41%	37%	0%
Iatan 1	65%	42%	34%	50%	29%	14%
Iatan 2	48%	76%	63%	60%	52%	35%
Hawthorn 5	57%	59%	41%	53%	64%	22%

The Company also limited consideration for retirement prior to 2039 for Jeffrey 1, Iatan 1, and LaCygne 2—which were only tested in one portfolio each—and Hawthorn 5, where pre-2039 retirement was only tested in two portfolios. This provides little information with which to make a retirement decision for these units. As shown above, most of these units have operated infrequently in recent years. Moreover, coal generation is facing economic and regulatory pressure, such as the proposed carbon emission standard from the EPA that would spur retirement or carbon capture retrofits for coal generators. In sum, these coal units should be more seriously considered for retirement before 2039.

Compounding the limited look at unit retirements, the Company has also [redacted] these units. Evergy's [redacted], leading the model to treat the units as [redacted]. Some of Evergy's units are quite inefficient, as shown by their actual high heat rates. The heat rate is a measure of the efficiency of a unit, measuring the amount of heat required to produce a unit of energy—usually

[3] EIA Form 923 data for fuel usage (MMBtu) and net generation (MWh), available at: https://www.eia.gov/electricity/data/eia923/.

presented in terms of MMBtu per MWh or btu per kWh. The lower the heat rate, the more efficient the unit, as it needs less fuel (and related costs) to produce a unit of energy. Table 3 below shows the heat rate performance of the Evergy coal units in recent years.

Table 3: Heat Rate of Evergy's Coal Units (MMBtu/MWh)[4]

Heat Rate	2018	2019	2020	2021	2022	2023
LaCygne 1	10.14	10.63	10.72	10.81	10.80	11.06
LaCygne 2	10.82	10.70	10.85	10.84	10.84	10.82
Lawrence 4	11.06	10.97	9.55	10.91	10.89	11.83
Lawrence 5	11.23	11.46	10.86	11.21	10.91	10.29
Jeffrey 1	10.93	11.74	11.91	11.21	11.14	11.74
Jeffrey 2	11.06	11.89	12.05	11.66	11.41	12.05
Jeffrey 3	11.48	11.85	11.90	11.87	11.27	*N/A*
Iatan 1	10.00	10.25	10.44	10.41	11.03	11.81
Iatan 2	9.51	9.12	9.22	8.96	9.38	9.56
Hawthorn 5	10.07	10.30	10.72	10.51	10.44	10.82

[redacted].[5] [redacted] the modeling towards keeping that unit online because it would appear [redacted] to do so. Therefore, Evergy should model a more [redacted] units in all modeling runs.

Further, Evergy's modeling of its coal units does not account for the costs associated with complying the U.S. Environmental Protection Agency ("EPA") proposed rule for carbon pollution standards. Under the proposed rule, coal units that Evergy intends to operate beyond 2040, such as Iatan 2, would have to install carbon capture storage ("CCS") by 2030; coal units

[4] EIA Form 923 data for fuel usage (MMBtu) and net generation (MWh), available at: https://www.eia.gov/electricity/data/eia923/.

[5] Evergy response to Sierra Club Data Request 1-2, Confidential Attachment QSC-1-2_CONF_Heat_Rate_EVG.

that Evergy commits to retire by 2040, would have to rely on 40% co-firing with natural gas; coal units that Evergy commits to retire by 2035 would have to take a binding 20% capacity factor limit by 2030.[6] Each of these requirements must be modeled in Evergy's upcoming Triennial IRP, in combination with allowing the model to select the most-economic retirement dates, in order to provide a reasonable, low-cost resource plan.

II. Deficiency 2: Evergy's selection of new resources is grossly biased towards new gas and against clean energy.

We appreciate that Evergy has used capacity expansion modeling as a tool in developing its portfolios. But in addition to the concerns above regarding modeling of coal unit operations, we find that the Company's treatment of replacement resources unfairly favors new natural gas. The use of a sophisticated model is only as good as the assumptions used, and in this case the Company has overstated the costs of clean resources and understated the costs of new gas. In its low carbon scenario (Future 3), the Company has neglected to model any costs for CCS or hydrogen capability at new gas units, despite assuming that these units could produce zero-carbon energy.[7] Finally, we are concerned that investing in new gas will lead to more stranded costs in the future, as coal assets are today.

Evergy's cost projections assume that the recent uptick in clean energy installation costs will persist into the long-term, which unfairly inflates these costs. For new clean resources, Evergy constructed a long-term forecast using a recent RFP's results as a starting point and then

[6] New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule, Proposed Rule, 88 Fed. Reg. 33240, May 23, 2023. Table 5 in the Proposed Rule summarizes the compliance options for existing coal units. 88 Fed. Reg. at 33359.

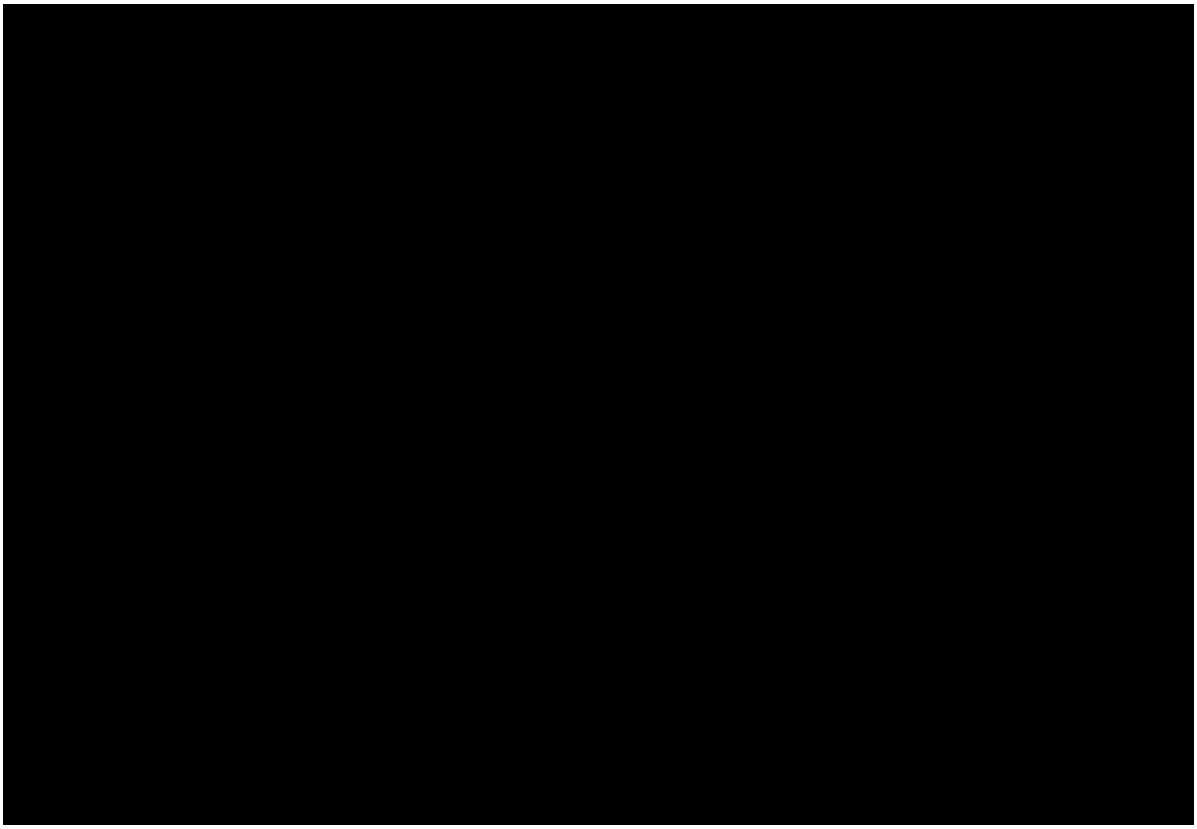
[7] Evergy response to Sierra Club Data Request 1-12b.

applied the changes in costs from the National Renewable Energy Laboratory's ("NREL") Annual Technology Baseline ("ATB") and the U.S. Energy Information Administration's ("EIA") Annual Energy Outlook ("AEO") cost forecasts for each resource type.[8] Importantly, however, the use of the recent RFP results includes the recent price increases due to supply chain and interconnection issues. Even if NREL and EIA project flat or declining costs (after adjusting for inflation), merely applying these changes to a high starting value still leads to high costs in the long-term. As a result, Evergy's assumed capital costs for clean energy resources were [redacted] than those reported by NREL and EIA[9]—the latter shown in Figure 1.

[8] Evergy MO West 2022 IRP Annual Update, p. 39, 98.

[9] Evergy workpaper "CONFIDENTIAL New Build Parameters IRP 2023."

Figure 1: Overnight capital costs for solar PV, wind, and storage ($/kW nominal, unsubsidized)[10] CONFIDENTIAL



It is unlikely that the high costs reflected in Evergy's 2023 All-Source RFP results will persist into the long-term. In fact, recent data show that the obstacles to solar in particular have started to ease, leading to the recent decrease in solar PPA prices in SPP between Q1 and Q2 of 2023.[11] There is also movement at the federal level to improve the interconnection process that has created a bottleneck in many regions of the U.S. Thus, the Company's assumption that high

[10] National Renewable Energy Laboratory (NREL). 2022. *2022 Annual Technology Baseline (ATB) Cost and Performance Data for Electricity Generation Technologies*, available at: https://atb.nrel.gov/electricity/2022/data; U.S. Energy Information Administration (EIA). 2023. *Annual Energy Outlook 2023*, available at: https://www.eia.gov/outlooks/aeo/; Evergy workpaper "CONFIDENTIAL New Build Parameters IRP 2023."

[11] LevelTen Energy's PPA Price Index Q2 2023, p. 6.

costs will persist in the medium and long-term is overly pessimistic, and this assumption should be corrected to rely directly on medium- to long-term forecasts themselves.

In contrast to its handling of clean energy resources, Evergy's [redacted] for new gas-fired resources are [redacted] and positively biased towards these resources. Evergy's [redacted] for new gas-fired resources are [redacted] than those recently reported by various sources, such as [redacted] (see Figure 2).[12] The Company should use more [redacted] for new gas units that do not unfairly favor them as replacement capacity.

Figure 2: Overnight capital costs for natural gas CCs and CTs ($/kW, nominal)[13]
CONFIDENTIAL

[redacted]

The Company has also favored gas by modeling it as zero-carbon at no cost in some cases. In May 2023, the EPA released a proposed rule for carbon pollution standards, which

[12] Evergy workpaper "CONFIDENTIAL New Build Parameters IRP 2023."

[13] National Renewable Energy Laboratory (NREL). 2022. *2022 Annual Technology Baseline (ATB) Cost and Performance Data for Electricity Generation Technologies*, available at:

could require gas-fired power plants to use technologies such as carbon capture and sequestration or hydrogen co-firing. In this Annual IRP Update, Evergy's SPP Future 3 represents accelerated decarbonization to reflect a potential future with more stringent carbon regulation. Evergy notes that current non-emitting dispatchable technologies are insufficient to meet the emission goals of the SPP Future 3 scenario and that "technological improvements and/or substantial cost reductions in CCS or non-carbon emitting fuels will be needed to achieve the rapid decarbonization."[14] More specifically, Evergy notes that the refining and transport of hydrogen fuels is "cost prohibitive" and that "improvements in carbon capture and sequestration technologies are another option for reducing or eliminating emissions."[15] Evergy's SPP Future 3 scenario assumes new gas-fired resources to be "carbon-free in years beyond 2035, consistent with the expected technological innovation that would need to occur to achieve minimal emissions system-wide."[16] However, Evergy's modeling does not incorporate any costs associated with "carbon-free" technologies such as CCS or hydrogen co-firing.[17] Evergy notes that "future costs for non-emitting dispatchable technologies are speculative" due to the uncertainty of how technological innovation will evolve in the coming years.[18] With that, Evergy modeled new gas-fired resources "as non-emitting after 2035, with no added cost."[19] All

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https://atb.nrel.gov/electricity/2022/data; U.S. Energy Information Administration (EIA). 2023. *Annual Energy Outlook 2023*, available at: https://www.eia.gov/outlooks/aeo/; Evergy workpaper "CONFIDENTIAL New Build Parameters IRP 2023."

[14] Evergy response to Sierra Club Data Requests 1-12(b).

[15] Evergy MO West 2022 IRP Annual Update, p. 26.

[16] Evergy MO West 2022 IRP Annual Update, p. 39.

[17] Evergy response to Sierra Club Data Requests 1-12 and 1-13.

[18] Evergy response to Sierra Club Data Request 1-12.

[19] Evergy response to Sierra Club Data Request 1-12.

pollution reduction technologies have a cost, as Evergy and this Commission know well, making Evergy's assumption otherwise both surprising and entirely unsupportable.

In addition, the carbon reduction potential of these "carbon-free" technologies are highly uncertain and technological innovation is unlikely to fully resolve these issues. Although Evergy may consider a gas-fired plant equipped with CCS technologies to be "carbon-free energy" starting in 2036, there would be significant upstream emissions of methane, a potent greenhouse gas, from the extraction, production, and transport of gas to feed such plant. In addition, CCS does not reduce the nitrogen oxides, particulate matter, or other conventional pollutants that are released by the combustion of natural gas in power plants.

Adding CCS technologies to gas-fired power plants will result in exorbitant capital costs—as shown in Figure 3. The costs of a natural-gas combined cycle ("NGCC") with CCS are roughly double the costs of installing an NGCC without CCS, according to NREL or EIA; or almost [redacted] Evergy's assumed cost for a NGCC, despite its assumption that it will be carbon free.

Figure 3: Overnight capital costs for natural gas CCs with and without CCS ($/ kW, nominal)[20] CONFIDENTIAL

Hydrogen co-firing also presents additional costs, and Evergy has not included any costs of the fuel itself nor the transport of that fuel.[21] In addition, while hydrogen does not directly produce greenhouse gas emissions when burned, its combustion and use as a fuel source has been found to emit nitrogen oxides (NO_x), and hydrogen itself can more easily leak from equipment than other fuels due to its small molecular size; both of which are indirect greenhouse

[20] National Renewable Energy Laboratory (NREL). 2022. *2022 Annual Technology Baseline (ATB) Cost and Performance Data for Electricity Generation Technologies*, available at: https://atb.nrel.gov/electricity/2022/data; U.S. Energy Information Administration (EIA). 2023. *Annual Energy Outlook 2023*, available at: https://www.eia.gov/outlooks/aeo/; Evergy workpaper "CONFIDENTIAL New Build Parameters IRP 2023."

[21] Evergy response to Sierra Club Data Request 1-12.

gases that cause reactions in the atmosphere that lead to ozone formation.[22] It is also worth noting that emission reductions achieved from blending hydrogen with natural gas are non-linear.[23] In other words, a 30 percent hydrogen blend (by volume) with natural gas does not lead to a 30 percent emission reduction due to the differences in volumetric density between the two fuels that lead to less hydrogen in the fuel blend on a heat input basis.[24] Evergy must at least address the costs of CCS and/or hydrogen if it is modeling carbon-free generation from new gas units. Assuming that gas resources can stop emitting with no costs is magical thinking—even the proposed technologies have uncertain availability and performance. We understand that the costs of these technologies may be difficult to estimate at this point, but they are certainly not going to be zero and assuming as much is unwarranted and thus a deficiency.

Finally, the construction of new gas-fired power plants, in addition to being more costly than what Evergy assumes, is also at substantial risk of becoming a stranded asset in the medium to long-term. Planning to build new gas resources in the 2020's or 2030's is analogous to building coal units in the 2010s. A substantial amount of coal has retired in the U.S. in the past decade and, as a result, Commissions and ratepayers have been left to deal with immense stranded costs when these units retire. Often the owner of the retired unit seeks to fully recover the remaining asset value after retirement, including a rate of return that goes well past the unit's

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[22] Mehmet Salih Cellek, & Ali Pınarbaşı, Investigations on Performance and Emission Characteristics of an Industrial Low Swirl Burner While Burning Natural Gas, Methane, Hydrogen-Enriched Natural Gas and Hydrogen as Fuels, 43 Int'l J. of Hydrogen Energy 1194, available at: https://doi.org/10.1016/j.ijhydene.2017.05.107.

[23] Jeffrey Goldmeer, GE Power, Power to Gas: Hydrogen for Power Generation 9 (2019), available at: https://www.ge.com/content/dam/gepower/global/en_US/documents/fuel-flexibility/GEA33861%20Power%20to%20Gas%20-%20Hydrogen%20for%20Power%20Generation.pdf

[24] *Id.*

shutoff. Of course, this issue is not going away anytime soon for coal as the EIA expects that almost a quarter of coal capacity in 2022 would retire by 2029.[25] But sitting here today and planning for the future: gas units will be in the same position as the energy system moves more in the direction of carbon-free resources. Avoiding building gas today sidesteps the future pain of stranded costs that ratepayers would have to bear. The mistake of investing in coal need not be repeated by building up new gas.

III. Deficiency 3: Evergy should more actively argue for more transmission.

Evergy's modeling in this case assumes that the low carbon scenario (Future 3) leads to many hours with negative prices, with that share increasing over the years to nearly half of the hours in 2042.[26] We understand that there have been periods of negative pricing in SPP in recent years. Negative pricing can occur when demand is low and/or there is too much power on the system, such as when it is windy in the middle of the night. The long-term solution to these events is more transmission connections so that the power can flow elsewhere; and in the meantime, operators can curtail generation if they are taking a financial hit. But it is unrealistic to assume that the hours with negative prices would increase to nearly half the time. Plenty of stakeholders, including Evergy, other utilities, and developers have a vested interest in addressing this issue. With that in mind, to the extent possible, Evergy should encourage SPP to address this problem developing more long-distance transmission, and not assume that it is exacerbated in the future and that it will not be addressed.

[25] EIA, "Nearly a quarter of the operating U.S. coal-fired fleet scheduled to retire by 2029," (Nov. 7, 2022), available at: https://www.eia.gov/todayinenergy/detail.php?id=54559.

[26] Evergy MO West 2022 IRP Annual Update, p. 32, Figure 15.

IV. Deficiency 4: Evergy should apply for Department of Energy funding under the Energy Infrastructure Reinvestment provision of the Inflation Reduction Act to lower costs of replacing the coal units with clean energy.

Evergy should take advantage of Department of Energy ("DOE") funding through the Energy Infrastructure Reinvestment ("EIR") provision of the Inflation Reduction Act to lower costs of replacing the coal units with clean energy. To incentivize replacement of aging fossil fuel infrastructure with clean energy investments, DOE's Loan Programs Office ("LPO") has been allocated $250 billion in loan guarantee authority to fund "projects that retool, repower, repurpose, or replace energy infrastructure that has ceased operations"[27] for conditional project commitments through September 30, 2026. LPO's guidance on EIR eligibility illustrates several hypothetically-qualifying projects such as the replacement of retired coal and gas-fired power plants with renewable energy sources and storage, including environmental remediation efforts for on-site coal ash ponds as eligible activities.[28] According to Jigar Shah, the director of LPO, "LPO can finance entire Integrated Resource Plans as long as they relate to existing or legacy infrastructure."[29] The LPO is also offering free consultations to potential project applicants, such as Evergy.

[27] Inflation Reduction Act, Section 1706(a)1-2.

[28] Department of Energy, Loan Programs Office, "Program Guidance for Title 17 Clean Energy Financing Program" at 28-30, (May 19, 2023), available at: https://www.energy.gov/lpo/articles/program-guidance-title-17-clean-energy-program#page=1.

[29] Jigar Shah, "Tapping into DOE's 250B of loan authority for projects that reinvest in US clean energy infrastructure," UtilityDive, (July 6, 2023), available at: https://www.utilitydive.com/news/department-of-energy-doe-250-billion-loan-authority-solar-wind-storage-nuclear-clean-energy/653530/.

Under the EIR, utilities such as Evergy receive loan guarantees at much lower interest rates than the utility's rate of return on the coal plant[30] which can cover up to 80% of projects costs, with many applicants receiving loans to cover 50-70% of project costs.[31] Given that Evergy is already planning to retire Lawrence unit 4 in 2028 and is evaluating whether to convert Lawrence unit 5 to gas in 2028, the Company should take advantage of this opportunity for low-interest and relatively low-risk refinancing on coal plants' remaining balances, which lower the costs of retiring and replacing the units with clean energy sources.

Additionally, applying for EIR funding would translate to significant savings for rate-payers, lowering the cost of energy, and alleviating energy burden for low-income households throughout Evergy's service territory in addition to the benefits of clean energy deployment and reduced air pollution.[32] It would be a missed opportunity for Evergy to forgo applying to the EIR program to reduce costs and would also significantly hurt customers and rate-payers in the process. Evergy should take advantage of a free consultation with the LPO as soon possible, and should consider applying for EIR funding to reduce the cost of the energy transition for its customers.

[30] Christian Fong et al., "The Most Important Clean Energy Policy You've Never Heard About," Rocky Mountain Institute, (Sept. 13, 2023), available at: https://rmi.org/important-clean-energy-policy-youve-never-heard-about/.

[31] Department of Energy, Loan Programs Office, "Program Guidance for Title 17 Clean Energy Financing Program" at 9, (May 19, 2023), available at: https://www.energy.gov/lpo/articles/program-guidance-title-17-clean-energy-program#page=1.

[32] *Id.* at 28.

V. Deficiency 5: Evergy should work with Kansas and Missouri stakeholders to successfully implement Solar for All to benefit its low-income customers and system resilience.

As a key electric-sector stakeholder, Evergy should work with the state and local governments and other regional stakeholders to assure robust construction of rooftop and community solar to benefit low-income customers and grid resiliency. Solar for All is a federal grant program administered by EPA to build rooftop solar, community solar, battery storage, and home upgrades for low-income and disadvantaged communities.[33] The Kansas state government, through the Kansas Housing Resources Corporation, and the Missouri state government, through the State Environmental Improvement and Energy Resources Authority of the State of Missouri, have both filed their notices of intent to participate in Solar For All, and both may be awarded a grant of up to $400 million to implement this program. EPA will make final awards to states, including Kansas and Missouri in summer 2024. The state, local governments, and other stakeholders will then have a year or so to design the Solar for All programs. Installation is expected to begin in summer 2025 and must be completed by 2029.

In its upcoming, 2024 Triennial IRP and in meetings with stakeholders, like the local governments in its service area, Evergy should address how it intends to work with stakeholders in both states to assure that as many low-income and disadvantaged households as possible can take advantage of this federal grant funding, which is a once-in-a-generation opportunity to deliver economic benefits to low-income customers, while reducing pollution and improving grid resiliency. Distributed solar will benefit low-income and disadvantaged customers by reducing energy costs and improving home values for low-income homeowners. Solar for All will also

[33] U.S. EPA, Solar For All website, (Aug. 23, 2023), available at: https://www.epa.gov/greenhouse-gas-reduction-fund/solar-all.

benefit the resilience of the grid, especially when solar is paired with battery storage, as permitted under the program. Evergy should do its part to help make sure this program succeeds in its service area.

VI. Deficiency 6: Individual customers continue to support clean energy over coal- or gas-burning units.

In its resource planning, Evergy should be responsive to the interests of its customers. Its customers continue to favor the development of clean energy resources over fossil-burning power plants. *See* Attachment A.

VII. Conclusion.

Sierra Club appreciates the opportunity to engage in Evergy's IRP process and respectfully requests that the Company agree to fix, or the Commission order the Company to fix, the deficiencies identified herein in its 2024 IRP.

Respectfully submitted,

Dated: August 31, 2023

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the above and foregoing Sierra Club's Comments on Evergy's 2023 Integrated Resource Plan Annual Update has been emailed this August 31, 2023, to all counsel of record.

/s/Sarah Rubenstein
Sarah Rubenstein