

MidAmerican Resource Evaluation Study IEC, ELPC and Sierra Club Post June 19 Meeting Comments July 23, 2024

Sierra Club, Iowa Environmental Council (IEC), and the Environmental Law and Policy Center (ELPC) offer the following comments in response to materials presented at MidAmerican's June 19, 2024 Resource Evaluation Study (RES) meeting and shared as part of the RES process.

After reviewing MidAmerican's RES (1) resource cost assumptions, (2) resource build and retirement constraints, and (3) modeling of federal regulations, we are concerned that the Company's RES model is set up to systematically disadvantage clean energy resources and favor maintaining the status quo. We will outline our concerns with these, and other aspects of the Company's modeling, below.

I. MidAmerican Should Not Use Unreasonably High Costs for Modeling New Renewable Resources

A. MidAmerican's clean energy input costs are substantially higher than costs used by other utilities and leading industry sources

The input data provided by MidAmerican in the 2024 Resource Evaluation Study shows overnight capital cost estimates for new solar, wind, and storage resources that are substantially higher than expected both now and going forward. The Company's costs are higher than other utility cost data and higher than leading industry cost data and projections, including from the National Renewable Energy Laboratory (NREL), the United States Energy Information Administration (EIA), and Lazard. Even more concerning is that the deviation between MidAmerican's assumptions for solar, wind and storage costs and all other sources becomes more pronounced in the future years based on MidAmerican's assumption that there is no technological learning and resource costs do not decline over time¹ (discussed more below). These assumptions artificially inflate the costs of clean energy resources relative to conventional resources in MidAmerican's modeling and are likely driving the minimal renewable deployment seen in MidAmerican's portfolios.

In Figure 1 below, we compare the current (2024) overnight cost of solar, wind,² and battery energy storage systems (BESS) that MidAmerican uses to projections from NREL, EIA, and

¹ MidAmerican Response to Environmental Intervenors Request 1b. March 14, 2024.

² MidAmerican stated that it considered proposals it received for wind and solar projects, historical pricing, and actual experience in developing wind and solar cost estimates. MidAmerican Response to Environmental Intervenors request 2.08. July 8, 2024.

Lazard. On average, MidAmerican's current cost estimate is percent higher than NREL's and EIA's estimates for wind, percent higher for solar, and percent higher for BESS.³





In Figure 2, Figure 3, and Figure 4 below, we compare MidAmerican's long-term cost estimates (now through 2050) for these same technologies to other industry forecasts. While other utilities, including Berkshire Hathaway utility Pacificorp, assume technology maturation and therefore that resource costs decline over time, MidAmerican holds the cost for these technologies flat, adjusting only for inflation. Because of this assumption, the deviation between MidAmerican's cost assumptions and all other projections grows over time. The combination of inflated starting costs and no technology maturation assumptions or cost declines over time results in cost inputs for wind, solar, and battery energy storage systems that are significantly higher than industry standard projections, especially further out in the study period. By 2040, MEC's cost estimate for solar is more than the EIA and NREL estimates.

³ MidAmerican states that its 4-hour storage costs are sourced from NREL ATB with adjustments to include Off-Site Transmission costs, substation costs, and Real Estate costs. MidAmerican Response to Environmental Intervenors Request 1a, March 14, 2024.

Figure 2: Solar cost trajectories for MidAmerican compared to other utilities and industry sources



Figure 3: Wind cost trajectories for MidAmerican compared to other utilities and industry sources



Figure 4: BESS cost trajectories for MidAmerican compared to other utilities and industry sources



MidAmerican's forecasts for solar, wind, and BESS are the highest among all utilities we reviewed, and the only ones in our extensive review that include the effects of inflation without including any cost decrease associated with technological learning effects. MidAmerican's failure to use technological learning effects and include cost declines is inconsistent with best practices for resource planning. Additional recent IRPs that have used lower cost estimates for solar, wind, and storage than MidAmerican's 2024 RES include:

- Evergy Kansas 2024 IRP
- Duke Energy Indiana 2024 IRP
- PacifiCorp 2023 IRP
- Tucson Electric Power 2023 IRP
- DTE Michigan 2022 IRP

Numerous utilities, such as Nevada Energy,⁴ Pacific Gas and Electric, Arizona Public Service, Xcel Minnesota, and the California Public Utilities Commission all also rely on NREL ATB cost projections (sometimes with adjustments).

⁴ Nevada Energy 2025 Integrated Resource Plan. Volume 8 of 20 at 90. Available at

 $https://www.nvenergy.com/publish/content/dam/nvenergy/brochures_arch/about-nvenergy/rates-regulatory/recent-regulatory-filings/irp/IRP-Volume-8.pdf.$

B. MidAmerican's assumption that new resources experience no technological learnings or cost declines is contrary to industry consensus and systematically disadvantages clean energy resources

MidAmerican applied the assumption of no cost declines to all generator types, including new gas resources. The Company claimed it made this decision because it is not aware of industry consensus on cost decline trajectories, and believes the trajectories are speculative.⁵ But there is in fact industry consensus that modeling a cost decline for new resources is a best practice (as discussed more below). Further, assuming no change because there is uncertainty about the pace of change is in itself an incredibly conservative and biased assumption. The impacts of this assumption are not uniform across all resource types. The largest impact is felt by resources with the largest expected cost declines - that is, clean energy resources. Gas generators are generally considered mature technologies, and while there is some room for future technology developments and learnings that marginally impact their costs, there is general consensus that the cost of gas plants will change only gradually going forward. Clean energy resources, however, such as solar PV, wind, and BESS are newer technologies, and there is wide industry consensus that there is still substantial room for technological advancement and efficiency improvements in the supply chain and other soft costs, all of which is likely to lead to sustained future cost declines. Modeling conventional resources and clean energy resources both with flat cost decline assumptions systematically favors the conventional resources, and essentially locks clean energy resources out of the future resource mix. Once again, this assumption of no cost declines for any resource types violates best practices in resource planning

Figure 4 below compares MidAmerican, NREL and EIA projections for both BESS and CTs. This figure shows that while CT costs are expected to remain relatively constant (using NREL and EIA cost projections as an example), BESS costs are expected to drop to around or even below the cost of CTs. With MidAmerican's cost assumptions, BESS remains more than double the cost of CTs for the entire study period - it is therefore not surprising that the model never picks BESS when CTs are available. But this assumption is unjustified and inconsistent with how other utilities, and leading industry sources, model BESS resources. This is why nearly all other utilities model and build at least some BESS, while MidAmerican continues to fight against BESS in favor of gas and coal resources.

⁵ MidAmerican Response to Environmental Intervenors-Comments I-7. March 29, 2024.

Figure 5: CT and BESS cost projections



Table 1 below shows a comparison between MidAmerican resource costs and NREL and EIA new resource costs for 2024 and 2040; Table 2 shows the percent by which MidAmerican costs exceed industry projections for both 2024 and 2040. These tables show how much MidAmerican's forecasts deviate from industry standard forecasts over time. For example, MidAmerican's forecast of CT costs starts out between the percent higher than industry projections in 2024; by 2040, its projections are between the percent higher than the same industry forecasts. In comparison, MidAmerican's forecast for solar starts out around percent above industry projections, and by 2040, it is between the percent higher than industry estimates. There is a similar pattern for wind and BESS. By ignoring widely expected cost decreases associated with learning, MidAmerican gives an advantage to gas generation over renewable energy. This systematically biases the model against clean energy resources and explains, at least in part, the minimal deployment in the Company's results..

Resource	2024				2040		
	MEC	EIA AEO	NREL	Lazard	MEC	EIA AEO	NREL
Solar PV		\$1,502	\$1,467	\$1,369		\$855	\$712
BESS		\$1,744	\$1,950			\$588	\$1,145

Table 1: Comparison between MEC, EIA and NREL new resource cost assumptions (\$2023/kW overnight cost)

Wind	\$1,489	\$1,621	\$1,857	\$1,209	\$1,115
Combustion Turbine (CT)	\$1,087	\$1,127	\$1,271	\$895	\$974

Table 2: Percent difference between MidAmerican and industry standard cost estimates (MEC cost is X% > industry projection)

Resource		2024	2040		
	EIA AEO	NREL	Lazard	EIA AEO	NREL
Solar PV					
BESS					
Wind					
Combustion Turbine (CT)					

C. Conclusions and Recommendations

To obtain reasonable resource planning modeling results, MidAmerican must use reasonable cost forecasts. MidAmerican's modeling inputs misrepresent the future costs of renewables by omitting the steep cost reduction assumptions widely expected to result from the technological learning effect. A scenario that assumes a flat cost forecast for renewable technologies will have a very different resource buildout than one that assumes that the costs of technologies like solar, wind, and storage will generally continue to decrease as industry experts predict. MidAmerican has provided no evidence to support its high starting costs and flat cost projections.

While supply chain difficulties have resulted in recent cost increases, these are forces that should impact all utilities similarly. Other utility and industry forecasts show an expectation that the market will adjust and cost decreases will resume - MidAmerican should do the same. The Company has not acknowledged or explained why its assumptions deviate so significantly from all other utilities and industry sources. In the event that MidAmerican's costs actually are that much higher than all other utilities and industry sources, that in itself is concerning, and something the Commission should be aware of. The Company should take steps to address its procurement and cost challenges and update the Commission on its progress on this front.

These discrepancies in forecasts are very likely driving the modeling results MidAmerican is presenting. For example, in the MidAmerican Reference Scenario, the model adds **sectors** of new simple cycle gas generation in the near term, while not selecting any new renewables until 2034. The only BESS that the model selects in any of its scenarios is prior to 2030, and that is only because the model is not allowed to build CTs before 2030.

Recommendations:

- 1. MidAmerican must revise its new resource cost forecast for new resources to be closer to industry standard cost forecasts.
- 2. The Company should rely on either industry standard forecasts from NREL, as many other utilities are doing, or else forecasts purchased from an industry source.
- 3. A technological learning effect for new resources must be included, and the learning effect (i.e. price declines) should be higher for emerging, modular technologies such as wind, solar, and storage than for mature technologies such as combined and simple-cycle gas generators.

II. MidAmerican Should Not Artificially Constrain the Model with a Solar Procurement Limited to Each Year.

Another way that MidAmerican's modeling choices skew the results towards new gas is that MidAmerican uses resource build constraints in its capacity expansion modeling to limit how much clean energy resources can be built. This is concerning for a number of reasons. First, the Company has provided no reasonable explanation for the constraint.⁶ Second, MidAmerican is not similarly constraining conventional gas new resource additions. Third, this constraint is binding, meaning the Company has no modeling results that show what is economically optimal in the absence of a strict constraint.

Specifically, in MISO Zone 3, MidAmerican only allows are the of solar to be added to its portfolio annually, while the Company allows up to the the begin of gas generation (combined cycle and combustion turbine) to be added each year. This largely unconstrained amount of gas generation allowed in comparison to a binding and low solar cap is unjustified and will bias the model results strongly toward energy from gas resources. MidAmerican has not provided a reason for limiting its procurement of new solar generation to a year.

While solar availability may currently be limited by interconnection queues and/or supply chain issues resulting from the COVID-19 pandemic, there is no reason to believe that these constraints will remain over the mid-to-long-term. With notable recent actions by MISO⁷, PJM and FERC⁸ to

⁶ MidAmerican developed the annual build limits by allocating MISO's annual built limits by resource zone, with 4,900 MW of solar allocated to each local resource zone based on historical MISO queue performance.

MidAmerican Resource Evaluation Study - Meeting 2 - Model Scenarios. June 19, 2024 at 33.

⁷ MISO Generator Interconnection Queue Improvements (PAC-2023-1) - Interconnection Process Working Group (IPWG), January 30 2024. Available at

https://cdn.misoenergy.org/20240130%20IPWG%20Item%2008%20Generator%20Interconnection%20Queue%20I mprovements%20(PAC-2023-1)631506.pdf.

⁸ FERC, Fact Sheet | Improvements to Generator Interconnection Procedures and Agreements. July 27, 2023. Available at https://www.ferc.gov/news-events/news/fact-sheet-improvements-generator-interconnectionprocedures-and-agreements.

reform the interconnection and permitting process, all signs point towards a more efficient and lower cost interconnection process in the future.

MidAmerican has pursued thousands of MW of wind generation at a time, so it is possible for MidAmerican to pursue large quantities of renewable resources if it wants to. If MidAmerican faces a constraint that will uniquely limit how much new solar PV or other clean energy resources it can add to its system over the long-term, that is something that the Commission should be aware of and that should be investigated.

This constraint is binding in many scenarios, as evidenced by the model results which show portfolios with **sectors** of solar a year for several years. When the model builds up to the constraint, that means that more solar would likely be economically beneficial to ratepayers.⁹ Unless the Company models an unconstrained scenario, it doesn't know how much solar is most economic. The result is a portfolio that is more expensive, and has larger environmental and health impacts, than necessary. This finding that the model wants to build more solar than is allowed is even more striking given the high solar costs that MidAmerican modeled (as discussed above). This means that under more regularly, indicating that it is economic to add substantially more solar than the model is allowed to.

MidAmerican should allow the model to select more solar generation each year. If there are known limits to the amount of solar available in the next three to five years, those specific constraints should be included in the model, and MidAmerican should provide an explanation of the constraint to stakeholders. However, MidAmerican should modify its modeling constraints so that later years allow for the addition of a much higher amount of renewable generation if it is economical to do so. MidAmerican can implement this approach in Aurora by creating a new renewable resource option, available only in years after approximately 2030, which can be added in quantities of up to 1,000 MW a year at least.

While the Company may face some real annual constraints, model results can be important not just for the Company, but also for communicating to the market what the Company needs. If solar developers, for example, see a resource plan with minimal new solar added over the next few decades, they may be less engaged with the Company relative to a resource plan where they see that the model economically opted to add thousands of megawatts of new solar resources, for example.

Recommendations:

- 1. The Company should run at least one scenario where it removes all annual constraints so it can see what quantity of each resource the model economically chooses.
- 2. MidAmerican should only use near term resource build limits that reflect actual and well justified constraints, including consideration of the MISO interconnection queue, solar PPA market data, and MidAmerican's own experience building solar.
- 3. As an alternative, MidAmerican should assume it will be able to procure at least 1,000 MW of solar in each mid to long-term year, especially after 2030.

⁹ Unless 300 MW is coincidentally the economically optimal amount of solar PV.

III. MidAmerican must consider the Environmental Protection Agency's new greenhouse gas standards in its reference case.

The U.S. EPA recently finalized greenhouse gas (GHG) standards, which will require generators that emit greenhouse gas pollution to meet a set of "best system of emission reduction" (BSER) standards by a certain date.¹⁰ The EPA's new standards are the current law in the United States and therefore, like all other final and implemented regulations, MidAmerican should be modeling all Reference scenarios, and really the majority of its scenarios, to comply with the final GHG rule. Currently, MidAmerican does not include the final rule in its Reference case or in the majority of its scenarios - only Scenario 7 considers compliance with the GHG rules. This decision by MidAmerican, to model six out of its seven scenarios to be not in compliance with the law does not reflect realistic or prudent utility planning. It reduces the value of the modeling exercise, and puts ratepayers at a disadvantage by making them less prepared for a future with GHG limits. While it is reasonable for MidAmerican to run one of more alternate scenarios to explore what the world looks like if the current standards are not in effect, it is not reasonable for the Company to assume as a baseline that the current law is not in place.

Specifically, the rule requires existing steam generators, such as coal-fired boilers, retiring after 2039 to meet an emissions standard consistent with 90 percent Carbon Capture and Storage (CCS.) Existing boilers retiring between 2032 and 2039 are required to reduce emissions consistent with 40 percent co-firing on gas (a 16 percent reduction in emission rate) by 2030. New generators also have to comply with requirements under the new standard. New gas combustion turbines with capacity factors of 20 to 40 percent are required to meet a high-efficiency standard of 1170 lb CO2/MWh-gross. New combustion turbines with capacity factors greater than 40 percent are required to meet a standard of 800 – 900 lb CO2/MWh, likely requiring CCS or hydrogen fuel.

Coal Plant	Current retirement date ¹¹	Compliance requirements / actions
Neal 3		Reduce emissions consistent with 40 percent co-firing on gas
Neal 4		90 percent Carbon Capture and Storage
Louisa		90 percent Carbon Capture and Storage
Ottumwa		90 percent Carbon Capture and Storage

 Table 3: Retirement dates and 111 compliance requirements

¹⁰ www.epa.gov/system/files/documents/2024-04/cps-table-of-all-bser-final-rule-4-24-2024.pdf

¹¹ From MidAmerican, "RES Meeting 1 Inputs" (Mar. 7, 2024) at 18 (showing modeled retirement dates).

Walter Scott 3	90 percent Carbon Capture and Storage
Walter Scott 4	90 percent Carbon Capture and Storage

In addition to the coal plants, the GHG rules will also impact operation of new baseload gas plants, which MidAmerican builds in Scenario 5.¹²

Other utilities are already including the EPA's new requirements in their Reference Scenarios or as part of a majority of their core scenarios for their 2024 IRPs. This includes the following utilities:

- Duke Energy Indiana¹³
- Dominion Energy Virginia¹⁴
- Northern Indiana Public Service Company (NIPSCO)¹⁵

Recommendation:

- 1. MidAmerican must model compliance with EPA's new GHG standard in its reference case.
- 2. MidAmerican can use alternative scenarios to explore the portfolio that would be selected in the absence of the EPA's new standard. This will allow MidAmerican to plan for compliance with the law, while being prepared with a backup plan if the new standard is stayed or reversed.

IV. Multiple Other Modeling Limitations Bias MidAmerican's Modeling Towards Coal and Gas Resources.

In addition to the high clean energy costs and annual build limit caps that MidAmerican modeled, the Company has implemented a number of other constraints and limitations that collectively bias the model toward maintaining the status quo of reliance on coal and gas resources. While we have already touched on some of these issues in our first comment letter, it is important to understand the collective impact that these factors have in driving and biasing the model results. MidAmerican's reliance on such unreasonable constraints means that the portfolios it is presenting are not actually the lowest cost or best options for ratepayers. If MidAmerican is allowed to plan around the current resulting resource portfolios, the consequence will be a system that is higher

¹² From MidAmerican, "Resource Evaluation Study Meeting 2 - 06-19-24 Presentation UPDATE" at 46.

¹³ From Duke Energy Indiana, "2024 Duke Energy Indiana Integrated Resource Plan Public Stakeholder Meeting 1" (February 22, 2004) at 50. Available at https://www.duke-energy.com/-/media/pdfs/for-your-home/dei-

irp/20240222-dei-irp-public-meeting-1-slides.pdf?rev=c4b04eb66fdf4ba7a6f775eb38cc8778.

¹⁴ From Dominion Energy, "Dominion Energy Virginia and North Carolina 2024 Integrated Resource Plan (IRP) -Topic Specific Workshop 1 - Modeling" (June 3, 2024) at 5. (Document is public but not posted on the Company's website).

¹⁵ From NIPSCO, "2024 NIPSCO Integrated Resource Plan, Second Stakeholder Meeting" (June 24, 2024) at 63. Available at https://www.nipsco.com/docs/librariesprovider11/rates-and-tariffs/irp/2024-irp-stakeholder-advisory-meeting-2-final.pdf?sfvrsn=3131e151_6.

cost and has larger environmental and health impacts that is optimal or necessary. Below is a brief summary of other significant modeling constraints MidAmerican is relying on:

 <u>All coal plant retirement decisions are programmed in</u>: MidAmerican does not allow the model to make endogenous (economic) coal retirement decisions. The only coal retirements the Company models are ones that it explicitly programs into the model. In <u>Scenario 2</u> the Company modeled early retirement of two of its coal units -

. MidAmerican didn't evaluate retirement of any other coal plants or any other retirement dates.¹⁶ And in all other scenarios, the Company assumes no change or acceleration in retirement of any of its coal units. Additionally, the Company selected

to model for early retirement *not* based on economics, but because the units are the smallest, have the shortest remaining book life, and at have only a small number of co-owners. MidAmerican stated that it didn't consider Ottumwa because it is not the plant operator and it does not make sense to retire part of a plant.¹⁷ MidAmerican has the ability to evaluate the economics of a co-owned plant, and if MidAmerican's share of the plant is uneconomic and can be replaced by lower cost resources, MidAmerican can take steps to exit the contract. Given that it's not clear whether the plants being considered for retirement are the most economic ones to retire early, the usefulness of the earlyretirement scenario (Scenario 2) is undermined. *(See pages 4-5 of EI Comment letter from March 29, 2024 for more details on retirement modeling)*

- Long-duration storage is not a resource option: MidAmerican limits the new resource options available to the model, and critically does not allow the model to select long duration energy storage (LDES) even later in the model period. The Company's explanation for why it didn't consider LDES is relatively vague and mostly points to model complexity¹⁸ and to MISO not having provided sufficient accreditation and reliability distinctions for different types of BESS.¹⁹ While it is reasonable for MidAmerican to look to MISO for guidance on accreditation and reliability metrics, that doesn't justify MidAmerican doing nothing to study or understand how different resources, such as LDES, can fit in its long-term resource mix. And with the high resource costs that MidAmerican assumed for 4-hour BESS, this means that the only real resource replacement options that the model considers are gas resources. Long duration storage projects are being piloted by multiple utilities and are more likely to be a viable resource before small modular reactors that MidAmerican has included in its modeling. If MidAmerican is struggling with how to model long duration storage, it should explore technical assistance options to inform this process. (See page 1 of EI Comment letter from March 29, 2024 for more details on modeling LDES)
- <u>No fully-optimized scenarios are modeled</u>: MidAmerican did model a fully optimized scenario. This is inconsistent with best practices, and as discussed above, prevents the Company from understanding what is economically optimal and from sending accurate signals to the market on what resources will best serve ratepayers. In response to the

¹⁶ See, MidAmerican Response to Environmental Intervenors-Comment III.

¹⁷ MidAmerican Response to Environmental Intervenors Request 13. March 14, 2024; MidAmerican Response to Environmental Intervenors-Comments III-2.

¹⁸ MidAmerican Response to Tech Customers Request 10. March 29, 2024.

¹⁹ MidAmerican Response to Environmental Intervenors Request 8. March 14, 2024.

Environmental Intervenors first comment letter where we recommended modeling a fully optimized scenario, MidAmerican responded that its single retirement scenario provided a "meaningful combination of coal plant retirements."²⁰ This single, fully programmed scenario is not a substitute for a fully optimized scenario. *(See pages 3-4 of EI Comment letter from March 29, 2024 for more details on modeling of fully optimized scenarios)*

- <u>Limited Combustion Turbine (CT) options are available to the model</u>: MidAmerican modeled only one combustion turbine technology option. There are several types of peaking gas resources with different characteristics available on the market. This includes a traditional simple cycle CT, an aeroderivative CT, and a reciprocating internal combustion engine (RICE) unit. This is important mainly because peaking gas resources have different characteristics, some of which are more flexible and better at integrating variable renewable resources than others. If MidAmerican is going to model scenarios where it relies on gas resources, it should at least understand which are optimal to allow a concurrent build out of clean energy resources.
- <u>Solar plus storage hybrid option is not modeled</u>: MidAmerican did not model a hybrid solar plus storage option.²¹ The Company's reasoning was that modeling hybrid resources will restrict the output, for either the renewable or the storage resource due to the interconnection limit imposed through hybrid configuration.²² While this might be true, this is a description of a technical constraint that needs to be incorporated into modeling not a reason *not* to model hybrid resource at all. Modeling BESS with solar or wind as a pair can enable savings associated with sharing a site and an inverter. This is why a large portion of planned BESS in the US is paired and not standalone.²³
- <u>Coal to gas conversion options are not available to the model:</u> MidAmerican does not appear to be modeling or considering coal-to-gas conversions as a short-term option to reduce portfolio emissions and reduce costs while allowing dispatchable capacity to stay online.
- <u>Modeling of Demand-side Resources:</u> MidAmerican is only modeling energy efficiency at levels currently embedded in load.²⁴ The Company stated that it prepares an assessment of energy efficiency potential every five years, the last of which was completed in September 2022 and was used to develop the 2024-2028 Energy Efficiency and Demand Response plan approved by the Board.²⁵ This means that MidAmerican does not assume any new or incremental DSM efforts relative to the status quo and will now, and for the next few years, continue to rely on a plan developed in 2022. The Company's underinvestment in DSM

²⁰ MidAmerican Response to Environmental Intervenors- Comments II-1.

²¹ MidAmerican Response to Environmental Intervenors Request 1.d. March 14, 2024.

²² MidAmerican Response to Environmental Intervenors Request 1 d. March 14, 2024; MidAmerican Response to Tech Customers Request 10. March 29, 2024.

²³ Most planned U.S. battery storage additions in the next three years to be paired with solar. U.S. Energy Information Administration. September 29, 2021. Available at

https://www.eia.gov/todayinenergy/detail.php?id=49756.

²⁴ MidAmerican Response to Environmental Intervenors Request 5a, Match 14, 2024.

²⁵ MidAmerican Response to Environmental Intervenors Request 5b, Match 14, 2024.

resources and reliance on outdated studies deviates from best practices, and will result in MidAmerican ratepayers paying more for generation-side resources than they should.

Recommendations:

MidAmerican should make improvements to its resource planning process to consider and incorporate modeling of each element discussed above. If for any reason if cannot address any of these issues in the current RES process the Company should clearly explain why, and outline a plan for addressing each item in future RES or IRP processes.

We appreciate the commitment by MidAmerican to a transparent and collaborative planning process, and look forward to discussion of this feedback. Please do not hesitate to contact us with questions prior to a written response or the next stakeholder meeting.

Respectfully submitted July 23, 2024.

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