STATE OF IOWA
BEFORE THE IOWA UTILITIES COMMISSION

IN RE:	)	DOCKET NO. RPU-2025-0001
MIDAMERICAN ENERGY COMPANY	)	

PUBLIC VERSION

DIRECT TESTIMONY OF

DEVI GLICK

ON BEHALF OF

THE IOWA ENVIRONMENTAL COUNCIL, ENVIRONMENTAL LAW AND POLICY CENTER, AND SIERRA CLUB
("ENVIRONMENTAL INTERVENORS")

May 29, 2025

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I. INTRODUCTION AND PURPOSE OF TESTIMONY

Q. Please state your name and occupation.

A. My name is Devi Glick. I am a Senior Principal at Synapse Energy Economics, Inc. ("Synapse"). My business address is 485 Massachusetts Avenue, Suite 3, Cambridge, Massachusetts 02139.

Q. Please describe Synapse Energy Economics.

A. Synapse is a research and consulting firm specializing in energy and environmental issues, including electric generation, transmission and distribution system reliability, ratemaking and rate design, electric industry restructuring and market power, electricity market prices, stranded costs, efficiency, renewable energy, environmental quality, and nuclear power.

Synapse's clients include state consumer advocates, public utilities commission staff, attorneys general, environmental organizations, federal government agencies, and utilities.

Q. Please summarize your work experience and educational background.

A. At Synapse, I conduct economic analysis and write testimony and publications that focus on a variety of issues related to electric utilities. These issues include power plant economics, electric system dispatch, integrated resource planning, environmental compliance technologies and strategies, and valuation of distributed energy resources. I have submitted expert testimony in over 60 different proceedings before state utility regulators in more than 20 states.

In the course of my work, I develop in-house models and perform analysis using industry-standard electricity power system models. I am proficient in the use of spreadsheet analysis tools, as well as widely used optimization and electric dispatch models. I have directly run EnCompass and PLEXOS and have reviewed inputs and outputs for several other models.

Before joining Synapse, I worked at Rocky Mountain Institute (now RMI), focusing on a wide range of energy and electricity issues. I have a master's degree in public policy and a master's degree in environmental science from the University of Michigan, as well as a bachelor's degree in environmental studies from Middlebury College. I have more than 12 years of professional experience as a consultant, researcher, and analyst. A copy of my current resume is attached as EI Glick Direct Exhibit 1.

Q. On whose behalf are you testifying in this case?

A. I am testifying on behalf of Iowa Environmental Council, Environmental Law and Policy Center, and Sierra Club, collectively the Environmental Intervenors (EI).

Q. Have you testified previously before the Iowa Utilities Commission?

A. Yes, I did. I filed testimony in Docket No. RPU-2022-0001, MidAmerican Energy Company's (MidAmerican) Wind PRIME docket, as well as Docket RPU-2023-0002, Interstate Power and Light's (IPL) 2023 rate case. I have also been actively involved in the Resource Evaluation Study (RES) process for both MidAmerican and IPL.

Q. What is the purpose of your testimony in this proceeding?

A. In my testimony for this proceeding, I evaluate whether the proposed Solar Reliability Project (SRP) is supported by the modeling that MidAmerican conducted—both for the

RES as well as its updated SRP modeling. I also evaluate whether the SRP is supported by the independent modeling conducted by the EI as part of the RES process. I review and evaluate the reasonableness of the proposed terms in the SRP with a focus on the size cap. I also review what we know about the project cost, timing, and risks, and I evaluate differences between the Company's modeling, actual project data, and industry data. Finally, I outline additional resource planning considerations MidAmerican should incorporate into future RES processes to ensure that future resource applications are supported by the Company's modeling.

Q. How is your testimony structured?

A. In Section II, I summarize my findings and recommendations for the Commission.

In Section III, I summarize MidAmerican's SRP application and proposal, including the project size, size cap, and other ratemaking requests.

In Section IV, I discuss how MidAmerican's modeling from both the RES process and its updated modeling for the current SRP application support its findings on the cost-effectiveness of near-term solar photovoltaic (PV) deployment and the SRP as proposed. I also summarize how the proposed project aligns with the results of EI modeling from the RES process.

In Section V, I evaluate MidAmerican's justifications for its requested size cap and review the project timeline. I also review the information provided by the Company on project sites and developers considered, interconnection study status and timeline, and

project cost breakdown. I evaluate risks to the Company's timeline and evaluate whether the Company could economically develop resources beyond the 800 MW size cap.

In Section VI, I outline my concerns with the RES process and the associated modeling. I also outline suggestions to improve the process in the future and ensure the modeling results are robust over the entire study period.

Q. What documents do you rely upon for your analysis, findings, and observations?

A. My analysis relies primarily upon the workpapers, exhibits, and discovery responses of MidAmerican witnesses associated with this proceeding, as well as modeling, comments, and discovery responses from the RES process. To a limited extent, I also rely on certain external, publicly available documents.

II. FINDINGS AND RECOMMENDATIONS

Q. Please summarize your findings.

A. My primary findings are:

1. The 800 MW of solar PV that MidAmerican is proposing in the SRP aligns with the results from MidAmerican's RES modeling, MidAmerican's updated SRP modeling, and the EI modeling from the RES process.
2. MidAmerican's modeling in the RES and the SRP was reasonable relative to its near-term findings that deployment of solar PV over the next five years is a low-cost, no-regrets resource decision.
3. The Company set the project size cap of 800 MW of solar PV based on modeling results, and it's possible that more than 800 MW of cost-effective solar PV will be economically available in the next five years in Iowa.

4. MidAmerican's modeling for the SRP also found the inclusion of 120 MW of battery energy storage systems (BESS) in the near term to be economic, but this is not included in the Company's current application.
5. MidAmerican's RES process that led to the identification of resources in the SRP can use improvements to ensure that future resource planning decisions are robust and supported.

Q. Please summarize your recommendations.

A. Based on my findings, I offer the following chief recommendations:

1. The Commission should approve advance ratemaking principles for MidAmerican's SRP.
2. MidAmerican should continue looking for opportunities to procure cost-competitive solar beyond the 800 MW proposed in the SRP through issuing requests for proposals (RFP) and following the interconnection queue—even if that means MidAmerican has to submit another advance ratemaking principles application in the near future.
3. MidAmerican should also look for opportunities to procure BESS consistent with its findings in the SRP modeling that near-term BESS is economic—either standalone or paired with a current solar project—and include the storage in another advance ratemaking principles application submitted in the near future.
4. MidAmerican should commit to a more robust RES process in the future and include in its modeling consideration of long-duration energy storage (LDES), evaluation of coal plant retirements, and industry-standard cost decline assumptions.

5. MidAmerican should clearly outline what efforts it has already made to evaluate grid-enhancing technologies (GETs) and study the potential for additional GETs investments.

III. OVERVIEW OF MIDAMERICAN'S ASK IN THE SRP

Q. What does MidAmerican request in the Application?

A. MidAmerican is requesting approval of advance ratemaking principles for an 800 MW solar PV project, the 2025 Solar Reliability Project (SRP).[1] These ratemaking principles include (among other things) a proposed size cap of 800 MW-AC and a proposed cost cap of [redacted]—plus any incremental costs attributed to [redacted].[2] The cost and size cap will limit the amount of solar and the associated costs that can be included in rate base as part of the SRP.

Beyond these caps, other ratemaking principles include specifications related to a depreciation life of 30 years, and an allowed return on the common equity portion of the SRP (allowed ROE) of 11.25 percent. MidAmerican also specifies terms around (1) cancellation of cost recovery in the event that MidAmerican cancels sites or sells project equipment, (2) allocation of environmental benefits including renewable energy certificates, (3) ratemaking treatment of Federal Production Tax Credits, and (4) ratemaking treatment of Iowa retail energy benefits.[3]

[1] Application at 1.
[2] Application, Attachment A at 1; Direct Testimony of Brown at 6.
[3] Application, Appendix A.

IV. MIDAMERICAN'S MODELING SUPPORTS THE ADDITION OF 800 MW OF SOLAR PV IN THE NEAR TERM

Q. Please outline the modeling that MidAmerican conducted that supports its SRP application.

A. MidAmerican completed its RES in November 2024. As part of the RES, MidAmerican evaluated future resource options to serve its system between now and 2044. After filing the RES in November and before filing the SRP application, MidAmerican conducted updated modeling and analysis (SRP analysis) in response to MISO's introduction of a direct loss of load (DLOL) methodology. Specifically, MidAmerican updated the system load and individual resource capacity accreditation to account for MISO's DLOL planning reserve margin and resource accreditation values.

Q. What did MidAmerican's modeling in the RES show?

A. The RES showed that MidAmerican is planning for high future load growth. The model identified solar PV as a cost-effective near-term resource, and it built between 450 MW and 1,300 MW by 2030 in all scenarios and sensitivities.[4] MidAmerican's near-term action plan based on its Preferred Portfolio included 750 MW of new solar PV by 2030 (as well as two 233 MW combustion turbine gas plants).[5]

[4] Based on Cumulative Builds tables in the Study Scenarios and Scenario Results section of the RES; Direct Testimony of Hammer at 20. As discussed in Section 6 below, the EI do not believe that the RES modeling necessarily supports the addition of the CTs.
[5] RES at 84.

Q. What did MidAmerican's modeling in the SRP show?

A. MidAmerican's updated modeling is broadly aligned with the results from the RES. Specifically, the SRP modeling found that building 800 MW of solar between now and 2030 was the most economic way to meet near-term capacity needs and maintain reliable customer service.[6] The updated modeling also contained 120 MW of BESS between now and 2030.[7]

Q. Summarize the changes that MidAmerican made between the RES and SRP modeling.

A. As discussed in the Direct Testimony of Witness Hammer, MidAmerican made updates to the DLOL planning reserve margin, DLOL capacity accreditation, new resource costs, load forecast, and fuel price forecasts.[8] This resulted in different resource builds and generation profiles for the resources (capacity factors specifically).

Q. What were MidAmerican's DLOL reserve margin assumptions?

A. MidAmerican states that it utilized the updated DLOL planning reserve margin values that MISO posted in its Planning Year 2025–2026 Indicative Direct Loss of Load Results study (starting in planning year 2028–2029).[9] The planning reserve margin values that MidAmerican presents in Confidential Table 1 for the SRP scenario are aligned with the

[6] Application at 9.
[7] Direct Testimony of Hammer at 19.
[8] Direct Testimony of Hammer at 14.
[9] Direct Testimony of Hammer at 14; MISO, "Planning Year 2025-2026 Indicative Direct Loss of Load (DLOL) Results," available at https://cdn.misoenergy.org/Indicative%20DLOL%20Results%20PY%202025-2026667100.pdf

values MISO posted in its DLOL study, and therefore I find the Company's reserve margin assumptions to be reasonable.

Q. What were MidAmerican's DLOL resource accreditation assumptions?

A. For resource accreditation, MidAmerican used a more piecemeal approach. [redacted].[12] For BESS, MidAmerican used the same capacity accreditation values that it used in the RES study.[13] This decision appears to be driven by complexity associated with determining capacity accreditation for BESS in MISO, which depends on discharge and duration during specific reliability events, and MISO's continuing efforts to improve its storage modeling methodologies. MidAmerican relies on the same DLOL accreditation values from the Planning Year 2025–2026 DLOL Study for the entire study period rather than using the indicative

[10] EI Glick Direct Ex. 2, MidAmerican Response to OCA Request 15 - CONFIDENTIAL.
[11] EI Glick Direct Ex. 3, MidAmerican Response to OCA Request 15, Attachment OCA DR 15 - Wind DLOL – CONFIDENTIAL.
[12] EI Glick Direct Ex. 4, MidAmerican Response to OCA Request 15; Attachment OCA DR 15 - Thermal EFORD – CONFIDENTIAL.
[13] EI Glick Direct Ex. 2.

DLOL accreditation values that MISO provided for years beyond 2030.[14] MISO's long-term DLOL values were based on its Regional Resource Assessment (RRA)—a study that forecasts MISO's future electricity mix based on states meeting announced resource plans and policy goals. The results of the RRA modeling contain high levels of solar and wind installations.[15] Resource accreditation is tied to the resource mix on the grid; for solar and wind, accreditation decreases as resource penetration increases. Therefore, relying on the RRA values will result in low solar and wind relative to the 2025–2026 DLOL values. This would be concerning given how uncertain the study's assumptions and premises are.

Beyond 2030, MISO will likely have much more solar and wind than it does now. But the RRA was created based on state goals and utility resource plans. These will likely evolve, especially when the federal regulatory environment changes. With current federal policies explicitly focused on maintaining fossil resources and slowing renewable deployment, it becomes less likely that an aggressive renewable deployment scenario will materialize in MISO in the near term. Further, the DLOL methodology is new, and MISO continues to modify and refine it. The methodology proposed in future years will likely look different than the one used in the RRA report. For these reasons, I think it is reasonable and defensible for MidAmerican to rely on the 2025/2026 capacity accreditation values. The 2025/2026 values already discount solar relative to MISO's

[14] Direct Testimony of Hammer at 16; 2024 Regional Resource Assessment, (January 2025) at 7, available at https://cdn.misoenergy.org/2024%20RRA%20Report_Final676241.pdf.
[15] Direct Testimony of Hammer at 16.

current capacity accreditation assumptions and represent a reasonable transition in capacity accreditation. Relying on the RRA to further discount the value of renewables seems premature given how uncertain and dynamic the methodology and future resource mix is.

Q. How does MidAmerican's SRP load forecast compare to its RES forecast?

A. The load forecast that MidAmerican used in the SRP modeling is higher than the forecast it used in the RES modeling. Specifically, the SRP load forecast shows an additional [redacted] MW by 2029 (relative to the RES), bringing projected total load increase through 2029 from [redacted] MW (RES) to [redacted] in the SRP.[16]

Q. Does MidAmerican continue to impose build limits in its SRP modeling?

A. Yes. In the RES, MidAmerican put an annual build limit on solar PV of 300 MW.[17] There is no evidence that the Company increased or changed the cap for the SRP modeling. This limit remains concerning because in the SRP results, the model opted to build up to the build limit in 2025–2026. This means that the model would likely have built even more solar if allowed. This is critical because build limits are intended to represent limits that exist in the real world. But when MidAmerican goes to the market, it should let the market dictate what is economically available. Models should not dictate procurement—the market should.

[16] Direct Testimony of Brown at 13.
[17] RES at 64.

Q. How do the solar capacity factors compare between the RES and SRP modeling?

A. MidAmerican modeled lower capacity factors for solar in the SRP than it modeled in the RES, as shown in Figure 1. Specifically, in the RES, MidAmerican modeled solar with a year one capacity factor of around [redacted],[18] which stayed relatively constant over time. In contrast, in the SRP, MidAmerican modeled a year one capacity factor of [redacted] percent, declining steadily over time to account for curtailments and degradation.[19] The Company states that it calculated the SRP capacity factors based on system advisor model runs at four different locations around the state,[20] and that it used the P75 value to be conservative. As Witness Jablonski discusses, this year one capacity factor is below Lawrence Berkeley National Laboratory (LBNL) and National Renewable Energy Laboratory Annual Technology Baseline (NREL ATB) calculated average capacity factors, which are both above 24 percent. It is unclear why MidAmerican is using a conservative P75 assumption—which will result in less solar generation and lower value for solar—that is at least [redacted] below industry data and its own assumptions from the RES. SRP will operate at a combined average capacity factor of [redacted] percent.[21]

[18] Confidential Data from RES workbook ResourceGroupdYr24.xlsx.
[19] Direct Testimony of Jablonski at 22.
[20] Direct Testimony of Jablonski at 22.
[21] Direct Testimony of Specketer at 25. Witness Specketer provides an average capacity factor of [redacted] percent. MidAmerican indicated in Response to EI Request 33 - Confidential (EI Glick Direct Ex. 5) that Specketer's calculation covers the time period 2028-2058, while Hammer's calculation covers the time period 2028-2044.

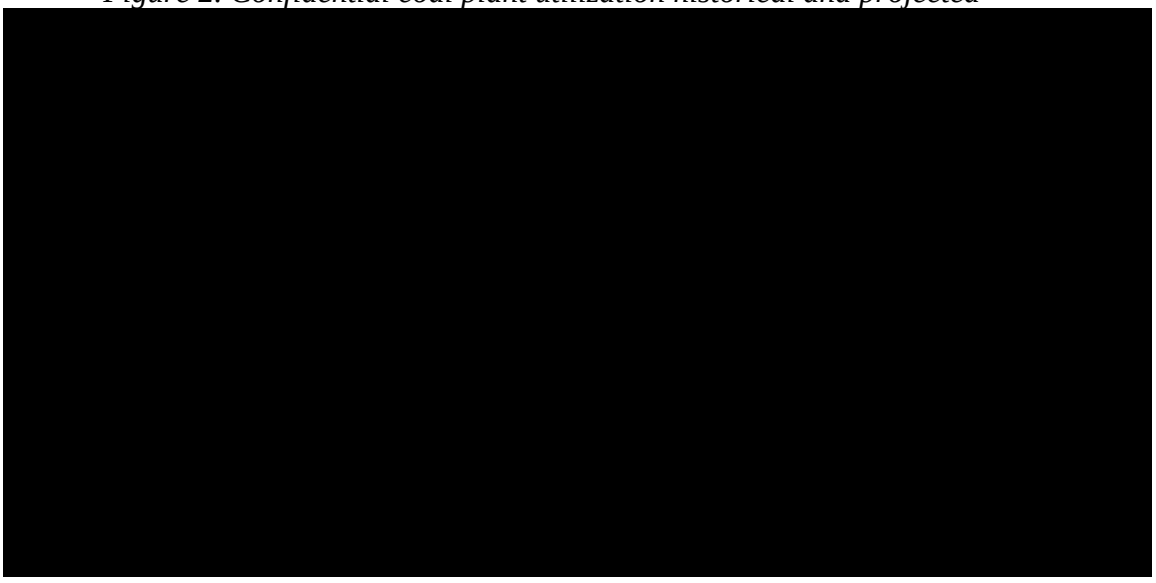
Figure 1. Confidential Solar capacity factors in RES and SRP

Source: Confidential Data from RES workbook ResourceGroupdYr24.xlsx; Confidential Hammer Direct Exhibit 2.

Q. How does coal plant utilization compare between the RES and SRP modeling?

A. In the RES, MidAmerican forecasted high capacity factors at its coal plants. This forecast was out of step with its recent historical utilization levels, as shown in Figure 2 below.

Figure 2. Confidential coal plant utilization historical and projected



Source: U.S. Energy Information Administration Form 923; Confidential Data from RES workbook ResourceGroupdYr24.xlsx.

Q. How do MidAmerican's new resource cost assumptions for the short term compare between the RES and SRP?

A. The relevant resource cost assumptions in the modeling are the short-term resource cost assumptions that would apply today. The resource cost assumptions for units with an online date of 2028 that MidAmerican used in its SRP modeling are slightly higher than industry-standard assumptions and modeling done for the RES.[22,23] Figure 3 below shows how the Company's SRP new resource cost assumptions compare to its assumptions in the RES as well as NREL ATB new resource cost assumptions for the moderate and conversate cases for 2024. Given current supply chain constraints, market instability, and the federal regulatory environment we are seeing in the near term, the costs that MidAmerican modeled are reasonable. The EI do not, however, expect costs at this level to persist throughout the study horizon, as noted in our RES comments. We still expect technological learnings to lower costs over time.

[22] Direct Testimony of Jablonski at 8-9.

[23] I have the same concerns as were voiced during the RES process about the Company's long-term resource cost trajectories. *See, e.g.*, M-0156, EI Comments on MidAmerican Energy Company's Final RES Report, at 21-27 (filed Mar. 3, 2025) (hereafter EI Comments on Final RES). I have not attached the RES comments as an Exhibit since EI previously filed them with the Commission, but we can file them again in this docket if the Commission would prefer.

Figure 3. Confidential New Resource costs in RES and SRP modeling vs NREL

Source: NREL ATB 2024; Confidential Hammer Direct Exhibit 1.
Note: NREL ATB overnight costs do not account for the PTC/ITC and assumes all resources come online in 2028.

For solar PV, 4-hour BESS, combustion turbine (CT), and combined-cycle combustion turbines (CCCT), MidAmerican used higher cost assumptions in the SRP modeling than in the RES. Wind was the only exception with the Company using a slightly lower cost in the SRP than in the RES. For CTs and CCCTs, MidAmerican's cost assumptions were aligned with NREL ATB in the RES but are now slightly above NREL in the SRP. For solar, wind, and BESS, MidAmerican's cost assumptions are above NREL in both the RES and SRP.

Q. Did EI conduct its own modeling as part of MidAmerican's RES?

A. Yes, EI conducted model runs to evaluate alternative scenarios as part of MidAmerican's RES. We started our model development with MidAmerican's EPA scenario because that scenario best aligned with regulatory policy as it existed at the time of the RES.

Recognizing that regulatory environments may change, EI also developed alternative futures based on the original Base scenario to capture futures with and without these regulations.

The EI Reference scenario adopts industry-standard costs for wind, solar, and battery resource candidates; earlier coal retirements; and an increased limit on annual solar builds. The EI Reference scenario makes modest adjustments to key input assumptions in order to test the sensitivity of those variables. EI developed two additional scenarios to evaluate the influence of the solar annual build limit and the addition of a firm resource to the MidAmerican resource plan. In all three of the scenarios, EI assumed an early coal retirement schedule.[24]

Q. How do the results from the EI independent modeling for the RES compare to MidAmerican's results regarding near-term solar PV additions?

A. Significant new solar was part of every scenario modeled by the EI in its RES modeling. In two EI scenarios, we explored build decisions in a future in which up to 500 MW of solar can be built each year. In both of those scenarios, the model built at least 2,700 MW of new solar by the start of 2030[25] and over 6 GW of solar through 2044.[26] Across all five scenarios EI modeled, the model built up to at least 90 percent of the annual solar build limit in every year after 2025, regardless of whether the limit was 300 or 500 MW.[27] In the SRP modeling, MidAmerican added 800 MW of solar by 2030 and over 2,000 MW

[24] *See* EI Comments on Final RES.
[25] EI Comments on Final RES at 39, 44.
[26] EI Comments on Final RES at 48.
[27] EI Comments on Final RES at 39.

over the study period. MidAmerican does not build quite as much solar in its RES modeling, with the reference scenario building the solar build limit of 300 MW in nine of the 20 years. The model builds a total of 750 MW of solar by 2030 and 3,350 MW over the years studied.[28]

This demonstrates that, in both MidAmerican's and EI's modeling, the build limit rather than economics is the limiting factor in the amount of solar the model recommends. This suggests that MidAmerican's build-constrained modeling assumption could be leaving cost-effective solar resources on the table. The selection of solar in most cases up to the build limit across multiple modeling scenarios conducted by MidAmerican and EI demonstrates that solar is a no-regrets resource that is prudent and useful regardless of what the future may hold.

Battery storage was also part of most EI portfolios. Specifically, the model built 120 MW of BESS by 2030 in the EI Reference scenario and a total of 900 MW of battery storage through 2044.[29] In the SRP modeling, MidAmerican also adds 120 MW of storage by 2030.[30] This is in comparison with MidAmerican's RES model which added zero storage over the modeling period.

[28] RES at 43.
[29] EI Comments on Final RES at 48.
[30] Direct Testimony of Hammer at 19.

The resource builds identified in EI scenarios bolster previous findings in the Wind PRIME docket that battery storage and solar resources can effectively integrate with existing wind resources to reliably meet MidAmerican's energy and capacity needs.[31] As discussed in the Direct Testimony of MidAmerican Witness Hammer, solar and wind are complementary resources on both a daily and seasonal basis.[32] MidAmerican should focus near-term actions on procuring as much cost-effective solar as the market will provide.[33]

Q. Overall, do you believe that MidAmerican's modeling supports the SRP project?

A. Yes, despite my concerns with many aspects of MidAmerican's modeling and its RES process, the Company's finding that near-term solar is a cost-effective, no-regrets solution is reasonable and supported by both its own modeling and the EI's prior modeling.

V. MIDAMERICAN'S ANTICIPATED TIMELINE IS SUPPORTED BY ITS APPLICATION AND OTHER INDUSTRY DATA, BUT ITS REQUESTED SIZE CAP IS TOO SMALL

Q. Does MidAmerican have specific projects identified to make up the 800 MW of solar it is requesting?

A. Yes and no. MidAmerican expects SRP projects to be sited at approximately six of the [redacted] potential locations listed in MidAmerican Jablonski Direct Confidential Exhibit 1.[34] The Company indicated that it may also consider other sites that are not listed as they

[31] EI Comments on Final RES at 49.
[32] Direct Testimony of Hammer at 24.
[33] Docket No. RPU-2022-0001, Supplemental Direct and Rebuttal Testimony of Devi Glick at 47.
[34] Direct Testimony of Jablonski at 7.

become known.[35] The nameplate capacity of each of these [redacted] projects is between [redacted] and [redacted].[36] MidAmerican indicated that it will continue to evaluate potential sites and may change or add sites as cost, development capability, and availability/purchase by others dictates.[37]

Q. Who is developing these projects?

A. MidAmerican anticipates the projects will be a mix of self-developed projects and projects acquired from independent developers, with approximately one-third self-developed and the remaining two-thirds acquired. In support of its decision to self-develop some of the projects, MidAmerican discussed its prior experience successfully developing six utility-scale solar PV projects that ranged in size from 3 to 100 MW.[38] The developers with projects listed in Jablonski Direct Confidential Exhibit 1 are [redacted].[39] I am concerned that MidAmerican did not issue an all-source RFP or consider power purchase agreements[40] and instead only considered self-build options. This lack of market-based procurement processes limits competition in the market, making it impossible to know if MidAmerican is actually accessing the lowest-cost solar available. It also limits the amount of solar available. I understand MidAmerican's arguments that (1) the Company might save ratepayers money by self-developing projects because it has a high bond

[35] Direct Testimony of Brown at 7.
[36] Jablonski Exhibit 1.
[37] Direct Testimony of Brown at 8.
[38] Jablonski at 5.
[39] Jablonski Exhibit 1.
[40] EI Glick Direct Ex. 6, MidAmerican Response to OCA Requests 21 & 22.

rating and resulting access to low-cost capital, and (2) the commitment to buy a developer project also helps to de-risk the project relative to a power purchase agreement.[41] At the same time, however, the Company is requesting a high return on equity (11.25 percent), which is a real cost passed on to ratepayers.[42] I would encourage MidAmerican to issue—or the Commission to order MidAmerican to issue—an All-Source RFP and conduct a more open procurement process in the future.

Q. Is the proposed timeline reasonable?

A. I believe it is. MidAmerican indicated that it expects to place 250 MW into service in 2027 and 550 MW in service in 2028.[43] Even if these projects are delayed by a year or so, they will still provide substantial value to MidAmerican's system. There are many factors that can impact the timing of project development. Yet, given the information the Company provided on where the potential projects are in the interconnection queue, interconnection study, and in the process of obtaining site control—as well as what I know about the general timeline for project development in the current market—I think the Company's timeline is reasonable.

Q. Is the size cap reasonable?

A. No. The size cap is low and will very likely leave cost-effective solar resources on the table. MidAmerican has set the size cap at 800 MW, which the Company selected based on the results of its SRP modeling. Regrettably, MidAmerican's modeling relied on a 300 MW build limit that excluded additional economic solar from the modeling results.

[41] EI Glick Direct Ex. 7, MidAmerican Response to EI Request 35.
[42] Application, Attachment A.
[43] Direct Testimony of Brown at 7.

MidAmerican's and EI's modeling results consistently reached the build limits, indicating the model would select more cost-effective solar if only it had been allowed to do so. Setting a size cap based on build-limit-constrained modeling means the size cap may be too small. Thus, the market, and not the SRP modeling, should cap the project size. The Company is currently considering projects in excess of 800 MW. While some of those projects will not materialize, it is possible that more than 800 MW will materialize. If MidAmerican is able to procure more than 800 MW of solar—utility-scale or otherwise—under the cost cap, then that means that more than 800 MW is economically available.

Given that all modeling results show the need for more solar beyond 800 MW, MidAmerican should be exploring ways to facilitate additional solar (whether it is utility-scale solar and increasing grid capacity by implementing GETs and reconductoring) or looking for other cost-effective options such as distributed capacity procurement, as EI witness Will Kenworthy will discuss in his testimony. The Company may have to submit another advance ratemaking principles application, but this will be in the best interest of ratepayers if the project costs come in under the cap.

Q. Should MidAmerican be considering resources other than solar?

A. Yes. As discussed above, MidAmerican's and EI's modeling both showed that BESS is part of a least-cost portfolio in the near term. Specifically, the SRP modeling and EI

modeling both added 120 MW of BESS between now and 2030.[44] But MidAmerican is not pursuing BESS at this time.[45] Given the value that solar PV can bring when paired with BESS, it is unclear why MidAmerican is not considering BESS as part of this advance ratemaking principles application (or any other near-term applications). [redacted] [redacted].[46]

VI. MIDAMERICAN SHOULD IMPROVE ITS FUTURE RES PROCESSES TO ENSURE THAT ITS FUTURE RESOURCE ADDITIONS ARE SUPPORTED BY ROBUST MODELING

Q. How are your concerns with RES process and modeling relevant to this docket?

A. MidAmerican relied on its modeling from the RES docket, with some updates discussed above, to demonstrate that the SRP is reasonable when compared to other sources of long-term supply. While I generally agree with the near-term findings and assumptions that the Company relied on in the near-term to select solar, I am concerned that MidAmerican's long-term assumptions and findings in the RES and updated SRP modeling are not robust. Specifically, I do not believe the RES and updated SRP modeling supports resource additions beyond the solar and BESS discussed above.

Q. Please explain your concerns with MidAmerican's RES modeling.

A. As detailed in the Final Comment letter submitted by the EI on March 3, 2025,[47] at the conclusion of the RES process, I am concerned that (1) MidAmerican's RES process was not sufficiently transparent and collaborative; (2) the Company relied on hard-coded

[44] Direct Testimony of Hammer at 19; EI Comments on Final RES at 48.
[45] EI Glick Direct Ex. 8, MidAmerican Response to EI Request 29.
[46] EI Glick Direct Ex. 9, MidAmerican Response to OCA Request 30.
[47] EI Comments on Final RES.

input assumptions that biased the results and did not allow for optimization in most model runs; and (3) the Company crafted its preferred portfolio outside of the model and constructed a scoring methodology that was not robust or meaningful.

Q. What are your recommendations regarding the RES process?

A. I have several recommendations for MidAmerican and the RES process:

1. Begin the RES process earlier and allow for more time for access to modeling results and input data.
2. Avoid overly restrictive resource build limits. Look to the interconnection queue for data on potential resource availability and look for opportunities for surplus generation and generation replacement processes with the Federal Energy Regulatory Commission.
3. Rely on industry-standard cost decline assumptions for new resources to avoid biasing the model in favor of gas resources and away from solar, wind, and battery storage.
4. Expand the resources that are robustly considered to include LDES, demand-side management, and distributed generation. This may require conducting studies in advance of the RES process to better understand optimal modeling methodologies and resource potential.
5. Evaluate the economics of existing legacy coal resources by testing multiple retirement scenarios (including gas conversions) as well as by allowing endogenous retirements.

6. Test and model portfolios without locking in resource option limitations—both additions and retirements—to develop a baseline of what is economically optimal in the absence of build limits and other logistical restrictions.
7. Conduct a study to determine the potential for grid enhancing technologies to allow MidAmerican to make more efficient use of the resources and infrastructure that it already has.
8. Evaluate demand-side management and distributed generation options in addition to utility-scale resource options.

Q. Why are these changes important?

A. MidAmerican should be able to use the RES as the basis for demonstrating that a resource is economic relative to alternatives. But if the RES is not developed using robust assumptions and methodologies, then it cannot be used to demonstrate that future resource planning decisions are robust. While the Company's near-term results regarding solar PV and BESS were relatively insulated from the flaws in its modeling, as evidenced by the fact that it showed up in the EI modeling as well, many of the Company's future resource decisions will not be supported by the modeling in the RES.

Q. Does this conclude your testimony?

A. Yes.