

STATE OF IOWA
DEPARTMENT OF COMMERCE
BEFORE THE IOWA UTILITIES BOARD

IN RE:)	
)	
APPLICATION OF MIDAMERICAN)	
ENERGY COMPANY FOR)	
DETERMINATION OF)	DOCKET NO. RPU-2018-0003
RATEMAKING PRINCIPLES)	
)	

Post-Hearing Brief of Sierra Club

PUBLIC VERSION

TABLE OF CONTENTS

I. INTRODUCTION1

II. LEGAL STANDARD.....4

 A. “Reasonableness” requires consideration of how a projects fits into a utility’s overall resource plans.4

 B. The Board should reject MidAmerican’s contention that, because the advance ratemaking principles statute does not specify “least cost” planning, Board may not review the reasonableness of the project in the context of the Company’s overall resource mix.6

 C. The statutory intent makes clear that “reasonableness” includes consideration of sound resource planning that is aimed towards transitioning to a carbon constrained environment.7

 D. The Board has broad authority to adopt non-traditional ratemaking principles, including principles that address MidAmerican’s existing generating assets.9

III. ANALYSIS.....11

 A. The Company has not demonstrated its proposed ratemaking principles are reasonable because it has not sufficiently shown its existing generating assets remain “used and useful.”11

 1. Summary of MidAmerican’s “analysis” of whether its existing generating assets remain “used and useful.”12

 2. MidAmerican has not conducted any study of whether its coal plants remain “used and useful.”14

 3. MidAmerican’s PROMOD analysis does not demonstrate that the Company’s existing generation remains used and useful.16

 B. Mr. Chernick’s analysis found that some of the coal plants are likely not cost effective, nor needed for capacity purposes, and thus may no longer be “used and useful.”18

 1. MidAmerican’s projected capacity factors for its coal plants suggest that several of them may no longer be economic to operate.....20

 2. A comparison of the coal plants’ operating costs to their reported energy revenue indicates that some of the coal plants appear to be operating at a loss to consumers.21

 3. Mr. Chernick found that MidAmerican could likely retire at least one of the coal units without raising any concerns about meeting its capacity obligations.22

C. None of MidAmerican’s arguments offered to rebut Mr. Chernick’s testimony are supported by evidence in the record.....25

1. MidAmerican has not offered any persuasive evidence that the Company does in fact have a capacity need for all of its coal plants.25
2. MidAmerican has also not offered any persuasive evidence that the Company needs all of its coal plants for energy purposes.....31
3. At times, MidAmerican itself made the case that some kind of integrated resource planning process is needed to assess whether its resource mix is needed.....34
4. The Board cannot take for granted that MidAmerican will develop a reasonable resource mix without additional Board oversight.....35

IV. RECOMMENDATIONS37

- A. The Board should require MidAmerican to either conduct a comprehensive analysis of the continued “used and usefulness” of its coal generation, or should require MidAmerican to submit an Integrated Resource Plan to the Board.39
 1. Without Board action, MidAmerican will not undertake the analyses needed to ensure that its resource mix is reasonable.40
 2. The Board should reject MidAmerican’s meritless claim that requiring it to conduct an assessment of its coal plants’ economics would generate an unreasonable amount of “uncertainty.”42
 3. The Board should require MidAmerican to submit a cost-effectiveness review of its coal units (or an Integrated Resource Plan) regardless of whether MidAmerican moves forward with the Wind XII project.....45
- B. The Board should also consider modifying the “rate mitigation” and “retail energy benefits” principles to first depreciate some of MidAmerican’s older and likely uneconomic coal units.46

V. CONCLUSION.....47

LIST OF TABLES AND FIGURES

Tables:

1.	Table 1: Iowa/South Dakota Load and Capability Forecast.....	13
2.	[REDACTED].....	22
3.	MidAmerican Capacity Surplus with Wind XII.....	23

Figures

1.	Iowa/South Dakota Load and Capability Forecast.....	13
2.	[REDACTED].....	20

I. INTRODUCTION

In this proceeding, MidAmerican Energy Company (“MidAmerican” or “Company”) is proposing that the Board approve advance ratemaking principles for an additional 591 MW of wind (“Wind XII” project). The Company has asserted that, “[w]ith its Wind XII application, MidAmerican is... taking the final steps to becoming the first investor-owned utility in the country to be 100% renewable on an annual basis.”¹ The question before the Board is whether the proposed project is “reasonable” under Iowa Code 476.53. The Board has long held that this “reasonableness” standard requires a review of how the proposed project fits into the Company’s resource mix as a whole, including whether the Company’s existing generation continues to be “used and useful.”

The record of evidence in this proceeding has demonstrated that, despite MidAmerican’s contention that the Wind XII project will achieve a “100% renewable energy vision,” the Company has no plans to transition away from its substantial coal portfolio, and that it has done no analysis of whether its continued heavy reliance on coal continues to be reasonable. In particular, the Company has not studied -- and appears to have no plans to *ever* study -- whether its existing coal generating plants continue to benefit ratepayers. Moreover, the Company made clear that it has no idea whether it needs all of its coal generation to meet customers’ energy and capacity needs, and has not examined whether customers might benefit from retirement of one or more of its coal units. In effect, the Company does not whether its resource mix continues to be reasonable, and so has not met the standard set forth in Iowa Code 476.53.

Sierra Club’s witness, Mr. Paul Chernick, conducted an extensive analysis of whether MidAmerican’s coal plants remain an economic piece of MidAmerican’s resource mix. He found

¹ MidAmerican Motion to Strike (Aug 10, 2018), at 3.

that many of the plants are likely costing ratepayers more than ratepayers are benefiting from them; moreover, MidAmerican likely does not need all of its coal plants from a capacity standpoint. As a result of his analysis, Mr. Chernick concluded that several of MidAmerican's coal plants are no longer be "used and useful," and recommended that the Board instruct MidAmerican to file a comprehensive analysis of its coal generating units' economics.

MidAmerican shockingly advocates that the Board should have no opportunity to review its coal plants' economics until the Company's next rate case, if even then, and even if it means customers may pay [REDACTED] more for this uneconomic coal. Moreover, the Company has threatened that it may withdraw its application for the Wind XII project if the Board seeks any kind of review of its coal plants' economics.

The weight of the evidence suggests that MidAmerican's resource mix is not reasonable. MidAmerican's "build but don't retire" approach fails the "reasonableness" standard by ignoring whether transitioning away from uneconomic coal plants towards a more balanced, reasonable, and cost effective portfolio would be in the public interest.

As a result, Sierra Club recommends that the Board modify the Proposed Stipulated Settlement and Agreement to ensure that MidAmerican is providing a reasonable, cost effective resource mix for its ratepayers, as required by Iowa Code 476.53. Specifically, Sierra Club recommends that the Board adopt the following two modifications to the proposed advance ratemaking principles:

- 1) "Within one year, MidAmerican must file with the Board a comprehensive analysis of the cost-effectiveness of each of its coal-fired generating units. MidAmerican must update this analysis bi-annually and shall provide the Board an opportunity to review through a contested hearing whether the coal units remain used and useful and whether continued operation is in the public interest."

In the alternative, Sierra Club notes that the Board could instead require MidAmerican to file an Integrated Resource Plan within the same timeframe. An Integrated Resource Plan would fulfill the advance ratemaking principles statute's legislative intent of encouraging a reasonable resource mix founded in long-term planning. Indeed, MidAmerican's own testimony at the hearing suggests that an integrated planning process is needed to determine whether its resource portfolio remains reasonable.

Importantly, because MidAmerican has threatened to withdraw its application if the Board adopts this recommendation, and because the question of whether MidAmerican's existing generation remains "used and useful" will remain relevant regardless of whether the Board approves the proposed ratemaking principles, Sierra Club recommends that the Board consider instructing MidAmerican to file either the cost-effectiveness review or an Integrated Resource Plan regardless of whether the Company moves forward with the Wind XII project. This could remove any inclination the Company may have to act against its own shareholders' and ratepayers' interest by withdrawing its application solely in an effort to prevent Board review of its existing generating assets.

- 2) The Board should modify the "rate mitigation" and "Iowa retail energy benefits" principles so that the revenue sharing and Iowa retail energy benefits are instead applied to MidAmerican's generating assets in the following order:
 - 100% to George Neal North Unit 3, then
 - 100% to George Neal South Unit 4, then
 - 100% to Walter Scott 4.

Re-ordering would accelerate depreciation of at least two of MidAmerican's coal units that are costing ratepayers more than they earn, facilitating their removal from the rate base at an earlier date. As discussed in greater detail in Sierra Club's Comments, customers could benefit by an estimated \$ [REDACTED] from this re-ordering. However, these benefits would only accrue

to ratepayers if MidAmerican removed the units from the rate base in the year they are fully depreciated.

II. LEGAL STANDARD

Under Iowa Code 476.53, the Board has “leeway to determine applicable ratemaking principles” for a proposed project, and “evaluate[s] the principles offered by the parties to ensure that the final principles are just and reasonable.”² The Board has broad authority to reject, accept, or modify proposed principles. As this Board has recognized in the past, “in some cases the principles requested by the utility may need to be modified to provide an appropriate balancing of ratepayer and utility shareholder interests.”³ As Sierra Club will discuss in subsequent sections, adoption of Sierra Club’s two recommended modifications would strike this appropriate balance.

A. **“Reasonableness” requires consideration of how a projects fits into a utility’s overall resource plans.**

The Board reviews a request for advance ratemaking principles for “reasonableness.” Specifically, Iowa Code 476.53(3)(c) requires the Board to find that “(2) The rate-regulated public utility has demonstrated to the board that the public utility has considered other sources for long-term electric supply and that the facility... is *reasonable* when compared to other feasible alternative sources of supply.” (emphasis added). As Board precedents make clear, assessing “reasonableness” requires first understanding how the proposed project fits into the utility’s resource plans, including whether its existing generating fleet remains “used and useful.”

The Board has a long and well-established history in advance ratemaking principles dockets of reviewing a proposed project’s “reasonableness” in light of how that project fits into a

² RPU-2017-0002, Final Decision and Order (April 17, 2018) at 45.

³ RPU-2015-0002 (“Wind X”), Order Approving Settlement with Modification and Reporting Requirements (August 21, 2015) at 8.

utility's overall resource mix. As the Office of Consumer Advocate pointed out in its Response to MidAmerican's Motion to Strike Intervenor Testimony, "The Board has recognized that Iowa's advance ratemaking principles law contemplates the review of utility resource plans in advance ratemaking principle proceedings."⁴

For instance, in RPU-2005-0004, the Board stated that: "In reviewing the Application and whether it is a reasonable alternative, the Board must determine how the proposed wind project fits into MidAmerican's current resource plan."⁵ In that case, the Board instructed MidAmerican to provide a copy of its most recent resource plan, "with supporting generation expansion planning and production costing analyses."⁶ Similarly, in RPU-2016-0005, the Board found that the evidence in the record supported the reasonableness of the wind project because "IPL has shown that the New Wind Project is *part of its strategy of transitioning its fleet* to cleaner energy sources and that its models show additional wind generation is a cost-effective means of insuring IPL meets its customers' energy needs in the future."⁷ Likewise, in RPU-2003-0001, the Board issued a series of questions to MidAmerican directed at better understanding how the project would fit into the Company's resource mix, including asking multiple questions about MidAmerican's planning processes.⁸

⁴ PURPA Standards in the Energy Independence and Security Act of 2007, Docket No. NOI-08-3, "Order Declining to Adopt Standards and Continuing Inquiry," at 3 (IUB, Dec. 17, 2009).

⁵ RPU-2005-0004, Order Requiring Additional Information (January 4, 2006) at 2.

⁶ *Id.*

⁷ (Emphasis added.) RPU-2016-0005 ("IPL New Wind Project"), Order Cancelling Hearing and Approving Settlement Subject to Modification and Reporting Requirements (October 25, 2016) at 3. The Board further found that the project "will reduce IPL's reliance on carbon-based generation and position IPL to meet ongoing and future environmental mandates in a manner that is likely to benefit ratepayers," thus satisfying the statute's requirements. *Id.* at 4.

⁸ RPU-2003-0001, Order Suspending Hearing and Requiring Additional Information (August 28, 2003) at 2 (asking, for example, for a description of "the process used by MidAmerican in conducting long-term capacity (or expansion) planning").

In RPU-2014-0002 (“Wind IX”), the Board instructed MidAmerican to include information regarding the following question in any subsequent advance ratemaking principles application: “Wind generation will reduce the percentage of energy production needed from other MidAmerican resources. *Will MidAmerican’s existing generation continue to be used and useful?*”⁹ Thus, the Board’s standard for assessing “reasonableness” in the context of an advance ratemaking principles docket is clear: evaluating reasonableness necessitates consideration of the overall resource mix, including the continued economics of the Company’s existing generating assets.

B. The Board should reject MidAmerican’s contention that, because the advance ratemaking principles statute does not specify “least cost” planning, Board may not review the reasonableness of the project in the context of the Company’s overall resource mix.

MidAmerican appears to take the position that, because the ratemaking principles statute does not specify “least cost” planning criteria, the Board is somehow precluded from considering the reasonableness of a project in light of a Company’s overall resource mix or plan.¹⁰

The Company’s view simply does not comport with the law or with the Board’s prior decisions. While it is correct that “the standard is that the facility is reasonable, not least-cost,”¹¹ “reasonable” does not mean “no” planning. “Reasonable” still requires a “well-reasoned,” balanced understanding of how the project fits into the Company’s resource plans. As has been noted by the Office of Consumer Advocate, understanding the “reasonableness” of a proposed project in consideration of a utility’s long-term resource plan or mix is supported by the structure of the advance ratemaking principles statute. The statute states two “conditions precedent” for granting ratemaking principles: first, that the Board find the utility has in effect a Board-

⁹ Wind IX, RPU-2014-0002, Order Requiring Additional Information (Nov. 14, 2014) at 1.

¹⁰ MidAmerican Motion to Strike at 6; Hammer Reb. at 7-8.

¹¹ In Re: MidAmerican Energy Company, Docket No. RPU-2009-0003, Final Decision and Order at p. 23 (December 14, 2009).

approved energy efficiency plan, and second, that the Board find the public utility considered other sources and found it is reasonable when compared to other feasible alternative sources.¹² Both, the OCA points out, are components of long-term resource planning processes.¹³ The statute thus clearly contemplates consideration of long-term resource planning principles. Further, this interpretation is also consistent with the Legislature's goal that development of facilities under the advanced ratemaking statute "shall be implemented in a manner that is *cost effective* and compatible with the environmental policies of the state...."¹⁴ (Emphasis added.) As the OCA has observed, "an integrated resource planning process is an appropriate and useful means by which to satisfy the prerequisites of the ratemaking principles law and to satisfy legislative intent that new generation is cost effective and compatible with environmental policies."¹⁵

C. The statutory intent makes clear that "reasonableness" includes consideration of sound resource planning that is aimed towards transitioning to a carbon constrained environment.

As the Board has noted in past decisions, "The reasonableness of the ratemaking principles will also be considered in light of the stated intent of the Legislature...."¹⁶ MidAmerican has taken the position in this proceeding that the sole statutory goal of Iowa Code Section 476.53 is to attract additional generation to the state. For example, MidAmerican CEO Adam Wright asserted at the hearing that the "only goal" of the ratemaking principles statute "is to provide certainty for investment in the state, to encourage investment in the state for new generation."¹⁷ Similarly, in discovery, MidAmerican stated that "the goal of the ratemaking

¹² OCA Response to MidAmerican Motion to Strike, p. 2.

¹³ *Id.*

¹⁴ *Id.* (citing Iowa Code 476.53(2)(a)).

¹⁵ *Id.*

¹⁶ RPU-2017-0002, Final Decision and Order (April 17, 2018) at 45.

¹⁷ Hearing Tr. at 43:1-5

principles law is to establish confidence regarding the regulatory treatment of a proposed new generation or transmission facility and thereby encourage the addition of new generation or transmission.”¹⁸

While attracting new electric generation to the state is certainly one part of the statute’s intent, MidAmerican’s framing completely neglects other key statutory aims. What the statute in fact states is: “It is the intent of the general assembly to attract the development of electric power generating and transmission facilities within the state in sufficient quantity to ensure reliable electric service to Iowa customers and provide economic benefits to the state. *It is also* the intent of the general assembly to... manage carbon emission intensity in order to facilitate the transition to a carbon-constrained environment.” Iowa Code 476.53(1) (emphasis added). As Board Member Lozier pointed out during the hearing, one of the major statutory aims is thus also “encouraging rate-regulated public utilities to manage carbon emissions to facilitate transition to a carbon-constrained environment.”¹⁹ The statute further states: “The general assembly’s intent with regard to the development of electric power generating and transmission facilities... shall be implemented in a manner that is cost-effective and compatible with the environmental policies of the state....” Iowa Code 476.53(2)(a). As noted by the Iowa Supreme Court, environmental policies include those designed to reduce greenhouse gas emissions.²⁰ MidAmerican has previously acknowledged this; for example, in RPU-2016-0001, MidAmerican’s former CEO and President William Fehrman stated in testimony that the statute and the Board’s findings “have encouraged and enabled the leadership Iowa has demonstrated in managing the transition to a carbon-constrained environment.”²¹ Thus, the statute contemplates

¹⁸ Hearing Exhibit 200 (Discovery Request 6-Sierra Club-3).

¹⁹ Hearing Tr. at 90:5-25

²⁰ *NextEra Energy Resources LLC v. Iowa Utils. Bd.* (“*NextEra*”), 815 N.W.2d 30, 40 (Iowa 2012).

²¹ RPU-2016-0001, Rebuttal Testimony of William Fehrman, at 11.

advance ratemaking principles as a tool for assisting with the transition to a lower-carbon generation fleet. Finally, as discussed above, the Office of Consumer Advocate noted that when the statute is viewed as a whole, the legislative intent clearly contemplates consideration of long-term resource planning.

The advance ratemaking principles statute is therefore not a blank check for a utility to indefinitely or indiscriminately expand its generation portfolio, but rather is one that encourages utilities to develop additional generation consistent with sound resource planning that ensures the utility's resource mix is cost effective and assists in transitioning towards a carbon-constrained environment.

D. The Board has broad authority to adopt non-traditional ratemaking principles, including principles that address MidAmerican's existing generating assets.

Iowa Code § 476.53 provides the Board with broad authority to advance the statute's goals via non-traditional means. Iowa Code § 476.53(3)(b) states that: "In determining the applicable ratemaking principles, the board shall not be limited to traditional ratemaking principles or traditional cost recovery mechanisms." This broad authority has allowed the Board to approve ratemaking principles such as a revenue freeze,²² revenue sharing/rate mitigation principles,²³ and retail energy benefits,²⁴ among others.

This broad authority statute encompasses allowing the Board to tie approval of advance ratemaking principles for a project to actions regarding its existing generating assets.

MidAmerican has already repeatedly tied its advance ratemaking principles for past wind projects to its existing coal generation through revenue sharing, rate mitigation and retail energy

²² RPU-2003-0001, Order Approving Stipulation and Agreement (October 17, 2003)

²³ See, e.g., RPU-2016-0001, Order Approving Settlement with Reporting Requirements (August 26, 2016)

²⁴ *Id*

benefits principles that apply profits from the wind projects towards accelerating depreciation of the Company's coal plants.²⁵ In this docket, as in Wind XI, the Company has proposed similar ratemaking principles that allow some of the benefits of the wind project to flow towards accelerating depreciation on the Company's coal plants.

The Company has thus implicitly acknowledged the Board's authority to tie advanced ratemaking principles associated with a proposed project to the Company's existing assets. For example, in RPU-2016-0001, former MidAmerican CEO William Fehrman cites in his testimony as one of the benefits of the proposed wind project to customers the "early depreciation of MidAmerican's coal assets which drives down rate base and is good for the environment."²⁶ MidAmerican has cited accelerated depreciation of its coal assets as one of the benefits of the Wind XII project, as well.²⁷ For instance, Mr. Specketer testified in this proceeding that

"[t]he primary quantifiable benefits that will flow to customers before a future rate proceeding is the revenue sharing..., which will reduce the rate base of MidAmerican's coal and other generating assets (starting with WSEC-4) resulting from the incremental net income from the Project that will be included in revenue-sharing calculations."²⁸

The proposed joint settlement adds a guaranteed revenue stream in the form of the "retail energy benefits," which would also flow towards accelerating depreciation of MidAmerican's existing generating assets.

²⁵ See, e.g., Wind XI, RPU-2016-0001, Revised Stipulation and Agreement (July 26, 2016) (rate mitigation principle tied to accelerating coal plant depreciation); Wind X, RPU-2015-0002, Motion to Approve Stipulation and Agreement and Suspend Procedural Schedule (June 26, 2015) ("customer revenue credit" principle included to use retail energy benefits to accelerate coal plant depreciation).

²⁶ RPU 2016-0001, Rebuttal Testimony of William Fehrman at 5.

²⁷ See Wright Reb. at 3:3

²⁸ Direct Testimony of Thomas Specketer ("Specketer Dir."). at 27:1-5

III. ANALYSIS

A. The Company has not demonstrated its proposed ratemaking principles are reasonable because it has not sufficiently shown its existing generating assets remain “used and useful.”

As discussed in section I, above, in order to determine whether proposed ratemaking principles should be granted, the Board considers the reasonableness of a project in light of the overall resource mix. Specifically, the Board instructed MidAmerican in the Wind IX proceeding (RPU-2014-0002) that “[i]f MidAmerican files any subsequent requests for ratemaking principles for wind generation, the Board expects” the utility to include “in MidAmerican’s initial filing” information answering the following question:

“Q: Wind generation will reduce the percentage of energy production needed from other MidAmerican resources. Will MidAmerican’s existing generation continue to be used and useful?”²⁹

As discussed in greater detail below, MidAmerican’s application included only a cursory and conclusory treatment of this question that did not begin to provide substantive insight into whether its existing generation remains “used and useful.” To more meaningfully explore this question, Mr. Paul Chernick submitted direct testimony on behalf of the Sierra Club that looked at the costs and revenues of the Company’s existing coal generating fleet, and found that several of the coal units are likely uneconomic. He also reviewed the Company’s load and capacity forecast and found that at least one of the uneconomic units could likely be retired while still maintaining the reserve margin required by MISO, and that it may be economically beneficial to retire additional units and instead purchase any capacity needs from the market or seek development of lower cost resources. As further explained below, MidAmerican did not rebut Mr. Chernick’s testimony on these issues with any sound evidence. While Mr. Hammer asserted

²⁹ Wind IX, RPU-2014-0002, Order Requiring Additional Information (Nov. 14, 2014) at 1.

a few alleged deficiencies in Mr. Chernick's testimony, questioning of Mr. Hammer through discovery and at the hearing revealed that Mr. Hammer's claims were not backed by any analysis or evidence. As such, the weight of the evidence indicates that several of MidAmerican's coal plants may no longer be "used and useful."

1. Summary of MidAmerican's "analysis" of whether its existing generating assets remain "used and useful."

In its application, MidAmerican provided only a cursory discussion of whether its existing generating assets remain "used and useful" in light of the trend towards increased wind generation. The only MidAmerican witness to directly address the Board's question as to whether the Company's existing generation remains "used and useful" was Mr. Hammer. In his direct testimony, Mr. Hammer presented MidAmerican's "current load and capability forecast" for MidAmerican's Iowa and South Dakota customers. This forecast is reproduced here for the Board's convenience.

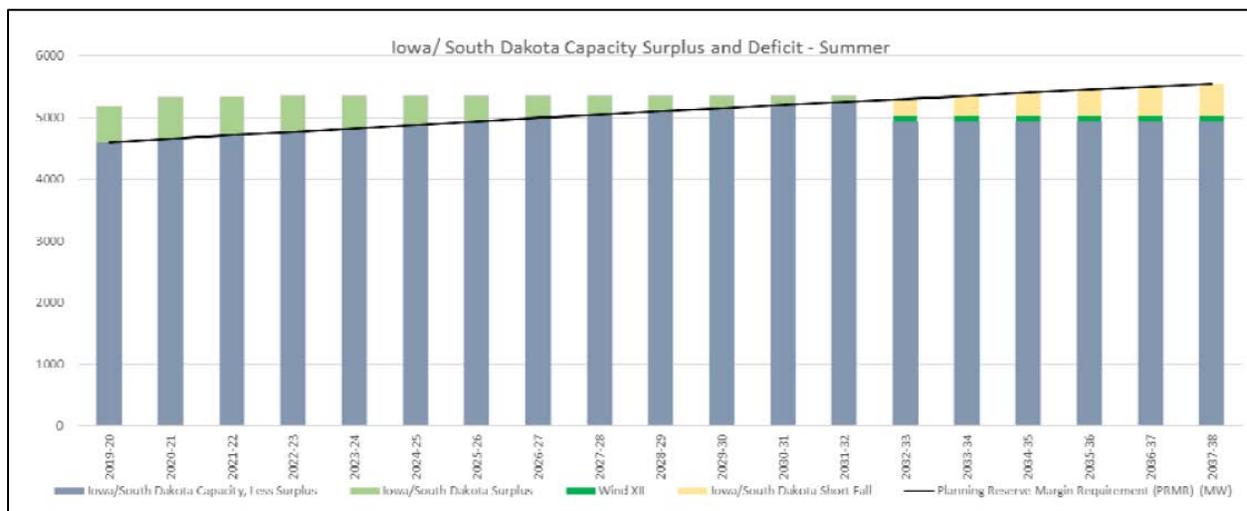
Table 1: Iowa/South Dakota Load and Capability Forecast

Iowa/South Dakota Load	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Gross Peak Forecast MISO Load	4,454	4,512	4,568	4,625	4,682	4,738	4,793	4,847	4,900	4,951	5,002	5,052	5,102	5,151
Normal Weather MISO (MW)														
Peak Coincident With MISO Peak (MW)	4,197	4,251	4,304	4,358	4,411	4,464	4,516	4,567	4,617	4,665	4,713	4,760	4,808	4,854
MISO Planning Reserve Margin (PRM % , UCAP)	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%
MISO Planning Reserve Margin Requirement (PRMR, UCAP MW)	4,524	4,583	4,640	4,698	4,755	4,812	4,868	4,923	4,977	5,029	5,080	5,132	5,183	5,232
Non-MISO Gross Peak Forecast Normal Weather	63	63	64	64	64	64	64	65	65	65	65	65	66	66
Non-MISO PRM (ICAP MW)	12.3%	12.3%	12.3%	12.3%	12.3%	12.3%	12.3%	12.3%	12.3%	12.3%	12.3%	12.3%	12.3%	12.3%
Non-MISO PRMR MW	71	71	71	72	72	72	72	73	73	73	73	73	74	74
Planning Reserve Margin Requirement (PRMR) (MW)	4,595	4,654	4,711	4,769	4,827	4,884	4,940	4,996	5,050	5,102	5,154	5,205	5,256	5,306

Iowa/South Dakota Capability - Unforced Capacity (UCAP MW)	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
Owned Generation (UCAP MW)	4,704	4,704	4,704	4,704	4,704	4,704	4,704	4,704	4,704	4,704	4,704	4,704	4,704	4,704
Interruptible Retail Customers - Behind the Meter Generators (UCAP MW)	64	64	64	64	64	64	64	64	64	64	64	64	64	64
Interruptible Retail Customers - Demand Response (MW)	238	238	238	238	238	238	238	238	238	238	238	238	238	238
Capacity Retirements (UCAP MW)	-	-	-	-	-	-	-	-	-	-	-	-	-	(403)
Committed Capacity Additions (Wind XII UCAP MW)	163	310	322	334	334	334	334	334	334	334	334	334	334	334
Purchases	55	55	55	55	55	55	55	55	50	50	4	4	4	4
Sales	45	45	45	45	45	45	45	45	45	45	-	-	-	-
Iowa/South Dakota Net Existing Capability - Committed Capacity (UCAP MW)	5,180	5,327	5,339	5,351	5,351	5,351	5,351	5,351	5,345	5,345	5,344	5,344	5,344	4,941
Planning Surplus/(Deficit)														
Total Reserve Margin (UCAP MW)	585	674	628	582	524	467	411	355	295	243	190	139	88	(366)
Wind XII, 15.5% of 592 MW	-	-	-	-	-	-	-	-	-	-	-	-	-	92
Percent Margin Percentage (UCAP)	23.5%	25.4%	24.1%	22.8%	21.3%	19.9%	18.5%	17.2%	15.8%	14.6%	13.4%	12.3%	11.2%	3.7%
Net Reserve Surplus/(Short Fall) (UCAP MW)	585	674	628	582	524	467	411	355	295	243	190	139	88	(274)

Source: Hammer Direct at p. 15 (Table 3).

Figure 1 – Iowa/South Dakota Load and Capability Forecast



Source: Hammer Direct at 15 (Figure 1).

The load and capability forecast portrayed in Mr. Hammer's table (reproduced here as Table 1) shows that MidAmerican expects to have a planning reserve margin of 25.4% (or 674 MW) in 2020-2021, even without the addition of the Wind XII project. As shown in the table, Mr. Hammer did not include Wind XII in his capability forecast until 2032-2033, despite an expectation that the project will come online in 2020. Mr. Hammer acknowledged that excluding Wind XII from his forecast until 2032 was a "conservative assumption" given that Wind XII is "likely to provide 92 MW of accredited capacity by its completion in 2020."³⁰

On page 16 of his direct testimony, Mr. Hammer then briefly addressed the Board's question of whether "MidAmerican's existing generation will continue to be used and useful," answering: "As shown in the load and capability forecast, MidAmerican's existing generation remains a key part of meeting MidAmerican's resource adequacy needs so that grid reliability is maintained."³¹ This paragraph constitutes the Company's entire response to the Board's question.

2. MidAmerican has not conducted any study of whether its coal plants remain "used and useful."

Through discovery, Sierra Club ascertained that MidAmerican has not conducted any further analysis -- beyond that presented in its advance ratemaking principles application -- into whether its existing generating assets remain economic. For example, in discovery, Sierra Club asked: "Please state whether you have carried out or reviewed any analysis of whether any or all of the Company's coal EGUs are higher cost options for providing capacity than replacing one or more of those units with other supply and/or demand side resources."³² MidAmerican responded:

³⁰ Direct at 13:17-14:4.

³¹ Dir. at 16:16-21.

³² Sierra Club Comments, Exhibit SC-02, Sierra Club Data Request 2-SC-2(b)

“No.”³³ Sierra Club also asked MidAmerican: “Please refer to your Request for Approval of Ratemaking Principles (“application”) at pages 2-3, discussing MidAmerican’s 100% renewable vision. Please identify and produce any analysis, reports, studies or plans regarding the retirement of the Company’s remaining coal-fired generating assets.”³⁴ MidAmerican answered: “MidAmerican plans, as reflected in the load and capability forecast of Table 3 of Mr. Hammer’s direct testimony and in responses to other data requests, continued operation of all coal plant facilities through the 20 year planning horizon... .” Moreover, when Sierra Club asked MidAmerican to provide “any analysis that MidAmerican has performed that compares its proposal to continue operating all of the coal supply resources to the feasible option of retiring one or more of those resource,” MidAmerican responded, “There have been no such studies.”³⁵

At the hearing, MidAmerican confirmed that it has done no analyses of its coal plants’ economics. For example, MidAmerican confirmed that it has not done any studies or analyses into retirement of any of its coal generating plants.³⁶ The Company’s CEO, Mr. Wright, agreed that “MidAmerican does not assess whether it could close any of its coal plants without any impacts to reliable service, meeting its capacity needs, and still preserving affordable energy rates.”³⁷ The Company further confirmed that it does not have any plans to analyze the risks involved in retiring any of their coal generating assets.³⁸

³³ *Id.*

³⁴ Sierra Club Comments, Exhibit SC-03, Sierra Club Data Request 1-SC-10

³⁵ Hearing Exhibit 205, Sierra Club Data Request 5-SC-14.

³⁶ Hearing Tr. 22:11-14 (Q: “MidAmerican’s 100% renewable energy vision does not include any plans to retire additional fossil generating plants, does it?: A: “That’s correct.” Q: “And MidAmerican has not done any studies or analyses into retirement of any of its coal generating plants; is that correct?” A: “That’s correct.”)

³⁷ Hearing Tr. at 57:22-25-58:1-2

³⁸ *Id.* at 92:17-93:6 (Q (Board Member Lozier): “Do you have any plans to analyze the risk involved in the retirement of coal generation facilities?” A: “...[W]e don’t have any plans today to look at when are we going to retire our coal assets. It’s something we haven’t evaluated. We don’t have any statutory requirements to do so, and we don’t have any plans to do so.”).

3. MidAmerican's PROMOD analysis does not demonstrate that the Company's existing generation remains used and useful.

When Sierra Club asked MidAmerican whether it conducts resource planning, the Company responded that it does; however, when asked for its most recent resource planning exercise, the Company responded: "The results of MidAmerican's most recent planning efforts are included in Application and Testimony for the Wind XII ratemaking principles."³⁹ When Sierra Club asked MidAmerican to provide "any available study that demonstrates that 'MidAmerican's resource mix is reasonable,'" MidAmerican once again pointed Sierra Club to its prior advance ratemaking principles applications.⁴⁰ However, the information MidAmerican provides in its applications in no way constitutes an analysis of whether its existing generation remains economic. Rather, as MidAmerican repeatedly acknowledged, it only analyzed the incremental benefit of adding the Wind XII project to its system.

As part of its application, MidAmerican ran a model called PROMOD (a production cost model) to develop hourly unit generation output, production costs, and revenue forecasts for all of its generating assets with and without Wind XII.⁴¹ According to Mr. Specketer, the purpose of using this model was to calculate the "incremental benefits that Wind XII is reasonably expected to produce through 2060," in comparison to the alternative of not adding the Wind XII project.⁴² One of the outputs of this modeling was the incremental impact of the Wind XII project on the dispatch of its existing generating fleet (both coal and wind).⁴³ As MidAmerican Witness Specketer noted in his testimony, "Because electricity market prices are lower with Wind XII,

³⁹ Hearing Exhibit 202, Sierra Club Data Request 6-SC-2.

⁴⁰ Hearing Exhibit 203, Sierra Club Data Request 5-SC-2.

⁴¹ Specketer Dir. at 20:

⁴² Specketer Dir. at 15:23-16:4, 20:2-11

⁴³ Specketer Dir. at 20:2-20.

existing thermal Generator Revenue is lower, offset by lower production costs.”⁴⁴ Mr. Specketer compared the net system costs (based on generators’ output, revenue, load expense, and fuel production cost) with and without Wind XII to determine the “net system benefit” of adding Wind XII.⁴⁵

At the hearing, Mr. Hammer appeared at times to assert that this analysis somehow constitutes a demonstration that the Company’s existing generating assets remain used and useful. For example, at the hearing, Sierra Club asked Mr. Hammer for the basis of his contention that MidAmerican’s resource mix is reasonable.⁴⁶ Mr. Hammer testified in part: “[W]e have shown analyses, economic studies, where we study those resources at those mix levels. The net system benefits is what we do, is an analysis of those resources and the interaction of them with other resources to show that it’s a reasonable resource mix....”⁴⁷

However, while the Company performed a net system benefit test for Wind XII, it did not do anything similar for the existing fossil units.

Mr. Hammer never explains how the Company’s estimation of the “net system benefit” of Wind XII is relevant to the used and usefulness of the Company’s existing generating plants. Nor could he; the “net system benefit” analysis alone does not show whether a generating asset is economic. Indeed, the net system benefit analysis for Wind XII does not even show that Wind XII is economic; assessing the complete costs and benefits of the project requires comparison of the benefits to costs such as those that Mr. Specketer considered for the Wind XII project in Table 8 of his testimony (listing capital costs, return and taxes, fixed O&M, and environmental

⁴⁴ Specketer at 20:19-20

⁴⁵ Specketer at 22:7-13.

⁴⁶ Hearing Tr. at 121.

⁴⁷ Hearing Tr. at 122:11-18

costs for the Wind XII project).⁴⁸ The Company performs that comparison for Wind XII in this docket, but not for any of its fossil resources. All that the PROMOD runs can show for the fossil plants is whether a unit will be dispatched, based on market prices and the unit's fuel and variable operations and maintenance (O&M) costs, as well as its operational flexibility. Other costs, such as fixed O&M, capital additions, overheads, and taxes, can have a substantial impact on a plant's economics, as Mr. Chernick explains in his testimony. A plant may be economic to run looking only at operational costs, but uneconomic once other costs are accounted for. The conclusion that can be drawn from the PROMOD runs boils down to: "if we have the coal plants, we will run them sometimes, although we will run them less and less as more wind is added." (Note that for [REDACTED] of the units ([REDACTED]), even this conclusion cannot be drawn from the PROMOD outputs, because as Mr. Chernick discusses in his testimony, the Company designated those units as "must-run" for all or some parts of the year.⁴⁹ This designation means MidAmerican forced those units to run in PROMOD regardless of whether it was economic to dispatch them.⁵⁰) In short, the PROMOD "net system benefit" analysis to which Mr. Hammer cites does not examine whether ratepayers are better off with or without a particular plant. A common-sense analogy makes this point clear: if the Company were to lease BMWs for all of its meter readers, the fact that its meter readers were driving those BMWs every day would not mean that those leases were economically beneficial to ratepayers.

B. Mr. Chernick's analysis found that some of the coal plants are likely not cost effective, nor needed for capacity purposes, and thus may no longer be "used and useful."

⁴⁸ Specketer Dir. at 31-33, Table 8 (CONFIDENTIAL)

⁴⁹ Chernick Dir. at 6:7-15.

⁵⁰ *Id.*

Neither the limited load and capacity information presented in Mr. Hammer's testimony, nor Mr. Specketer's "net systems benefit" analysis, shows that MidAmerican's existing generating assets remain "used and useful." As pointed out by Mr. Chernick, Mr. Hammer's testimony "does not begin to answer the question requested by the Board."⁵¹

In order to address the Board's question as to whether all of the Company's existing generation remains used and useful, Mr. Chernick undertook a comprehensive assessment of the economics of the Company's existing generation, focusing on its coal plants. Specifically, Mr. Chernick examined whether "the market value of MidAmerican's existing coal-fired units exceed the costs of continuing to run them, in the present environment of low gas costs and the widespread installation of low-cost (and declining-cost) wind and solar resources."⁵² Mr. Chernick noted that a focus on the Company's coal plants was appropriate because "[t]he large amounts of wind regionally has reduced the profitability of coal plants more than most other types of generation."⁵³ As discussed in greater detail below, Mr. Chernick examined the costs of fuel, operating and maintenance (O&M), overheads, and ongoing capital additions, and found that for several of those units, their costs appear to be exceeding the market value of their output.⁵⁴ Moreover, Mr. Chernick found that not all of MidAmerican's plants are needed for capacity purposes.

As part of his assessment, Mr. Chernick also addressed the planning criteria that MidAmerican's witnesses Hammer and Wright laid out in their testimony, including: reducing expected costs to ratepayers, reducing exposure to fossil fuel price variability and geo-political uncertainty; current and future environmental compatibility and sustainability; promoting system

⁵¹ Chernick Dir. at 4:1-4.

⁵² Dir at 2:22-23.

⁵³ Dir. at 3:13-16.

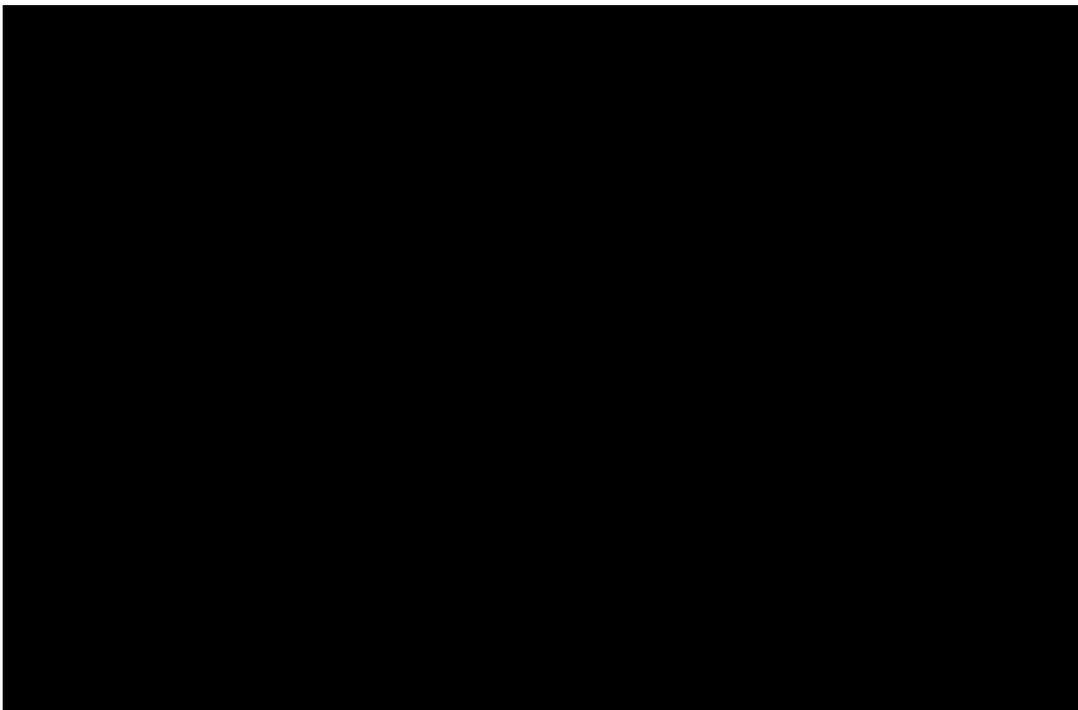
⁵⁴ Dir. at 4:15-18, 5:1.

reliability; advancing economic development; promoting flexibility and optionality; increasing diversity of power supply; and supporting Iowa's energy policy of being a renewable energy leader.⁵⁵ He found that maintaining the entire MidAmerican coal fleet does not promote any of these factors.⁵⁶

1. MidAmerican's projected capacity factors for its coal plants suggest that several of them may no longer be economic to operate.

Mr. Chernick began his analysis with a review of the Company's own projections of its coal plants' operations. Those projections were one of the outputs of the Company's PROMOD runs, discussed in detail above in section III.A.3. Those capacity factor projections are summarized in Confidential Figure 4 of Mr. Chernick's direct testimony, and reproduced here as Figure 2.

Figure 2:



⁵⁵ Chernick Dir. at 9:1-13 (citing Hammer Dir. at 2, 22; Wright Dir. at 38).

⁵⁶ *Id.* at 9-14.

As this figure illustrates, according to MidAmerican's PROMOD analysis in this proceeding, with the addition of the Wind XII project, the Company expects Neal 3 and 4 and Louisa to operate [REDACTED] capacity factor, and in some years, [REDACTED].⁵⁷ For Walter Scott and Ottumwa, the Company's capacity factor projections are [REDACTED], but are also less informative because in its PROMOD analyses MidAmerican [REDACTED] [REDACTED] and [REDACTED].⁵⁸ Mr. Hammer acknowledges that removal of must-run status would result in a further decline in the value of the coal plants.⁵⁹

Mr. Chernick observes that the [REDACTED] capacity factor projections provide some indication that the coal units may no longer be competing well in the market. As MidAmerican itself pointed out in testimony, to be economical, coal units "must operate at a relatively higher capacity factor, typically greater than 60%."⁶⁰ Mr. Chernick notes that Neal 1 and 2 ran at capacity factors from 30%-43% in 2013, and were retired in 2016; MidAmerican now projects that [REDACTED]

2. A comparison of the coal plants' operating costs to their reported energy revenue indicates that some of the coal plants appear to be operating at a loss to consumers.

Mr. Chernick next examined data from MidAmerican (or otherwise publicly available) regarding the costs of operating the coal plants, as well as at their historical performance data. This included data on the plants' historical and projected capacity factors, forced outage rates,

⁵⁷ Chernick Dir. at 17-18.

⁵⁸ *Id.* 17:11-16, 18:4-6.

⁵⁹ Hammer Reb. at 12: 4-10.

⁶⁰ Hammer Dir. at 38.

⁶¹ Chernick Dir. at 18:15-19:3. See also Hammer Reb. at 10, Confidential Tables 2-3, showing capacity factors for Louisa, Neal 3 and Neal 4 in the [REDACTED] % range.

availability, heat rate, fuel costs, variable O&M, fixed O&M, overheads, and capital additions.⁶²

Mr. Chernick summarized his estimation of the costs of running MidAmerican’s coal units in Table 15 of his testimony. Mr. Chernick then compared these costs to MidAmerican’s reported energy revenues.⁶³ His confidential Table 20, reproduced below as Table 2, contains the results of this comparison.

Table 2: [REDACTED]

	2014	2015	2016	2017	Average
Louisa	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Ottumwa	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Neal 3	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Neal 4	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Scott 3	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Scott 4	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

As this data shows, looking back at the time period of 2014 through 2017, Ottumwa and Neal 3 [REDACTED] every year, while Louisa, Neal 4 and Scott 3 have [REDACTED] [REDACTED], and Scott 4 was [REDACTED] on average.⁶⁴ Mr. Chernick calculated that, if MidAmerican were to continue to operate its coal units at their historical levels, customers would be expected to pay \$ [REDACTED] for these plants on an annual basis.⁶⁵

3. Mr. Chernick found that MidAmerican could likely retire at least one of the coal units without raising any concerns about meeting its capacity obligations.

Mr. Chernick next looked at whether MidAmerican needs all of its coal units for capacity purposes, and whether the Company could retire one or more of its uneconomic coal units

⁶² Mr. Chernick’s detailed discussion of this data can be found on pages 15-31 of his testimony.

⁶³ Dir at 32-35, Table 19-20.

⁶⁴ Id. at 35:8-10.

⁶⁵ Id. at 35:11-14.

without falling below its planning reserve requirements. He found that, before adding Wind XII, MidAmerican’s load and capacity forecast shows a capacity surplus of 674 MW in 2020, and more than 400 MW in 2025.⁶⁶ When the capacity value of Wind XII is included, he found that MidAmerican would have the capacity surpluses shown in his table 23, inserted below as table 3.⁶⁷

Table 3: MidAmerican Capacity Surplus with Wind XII⁶⁸

Planning Year	UCAP Surplus (MW)
2019-20	585
2020-21	673
2021-22	718
2022-23	672
2023-24	615
2024-25	558
2025-26	502
2026-27	446
2027-28	387
2028-29	335
2029-30	282
2030-31	232
2031-32	179
2032-33	-274

Mr. Chernick found that MidAmerican could likely retire a coal unit and still meet its MISO capacity obligation for as much as a decade, without adding any other type of capacity, while other resource additions (such as more wind) would further delay the need for other resources.⁶⁹

⁶⁶ Chernick Dir. at 38.

⁶⁷ Chernick Dir. at 38.

⁶⁸ These surplus capacity values are all in unforced capacity (UCAP) terms; each generation unit’s UCAP is smaller than its installed capacity.

⁶⁹ *Id.* at 39:9-14.

Mr. Chernick also reviewed MISO capacity prices to determine whether the coal plants' capacity value could be expected to compensate for any losses they can be expected to experience in the energy market.⁷⁰ He found that the 2017 MISO capacity price was not enough to bring [REDACTED].⁷¹ Further, he found that MISO capacity prices would need to far exceed the historical average to [REDACTED].⁷² Moreover, he noted that if coal energy were to be replaced with lower-cost wind energy, MidAmerican could likely purchase any needed capacity at low cost.⁷³

As a result of his analyses, Mr. Chernick concluded that continued operation of all of MidAmerican's coal assets does not appear advantageous to ratepayers.⁷⁴ Based on his findings, Mr. Chernick recommended that the Board take five actions: 1) Require MidAmerican to justify any future designation of must-run status for its coal units; 2) put MidAmerican on notice that any future capital additions to Ottumwa, Louisa and Neal, other than address immediate health and safety concerns, are subject to retrospective prudence review; 3) require MidAmerican file for approval of annual capital expenditures for Ottumwa, Louisa, and Neal, to ensure that MidAmerican is only investing in resources that remain economically used and useful for customers; 4) require MidAmerican to file a comprehensive analysis of the cost-effectiveness of each of its remaining coal units and a least-cost plan for replacing the uneconomic plants with purchases from existing resources and a portfolio of additional renewables, demand response, and storage; and 5) determine whether any Board rules or practices need to be amended to

⁷⁰ *Id.* at 40.

⁷¹ *Id.* at 40:12-16.

⁷² *Id.* at 40:13-16.

⁷³ *Dir.* at 40:17-41:1-2.

⁷⁴ Chernick *Dir.* at 4:15-5:1.

provide MidAmerican with reasonable assurance of recovery of the prudently incurred but undepreciated investments in uneconomic plants that are retired.⁷⁵

C. None of MidAmerican's arguments offered to rebut Mr. Chernick's testimony are supported by evidence in the record.

In response to Mr. Chernick's testimony, MidAmerican's witnesses made a variety of assertions about the need for its existing generating assets. Upon scrutiny, however, none of those assertions proved backed by analysis or evidentiary support. As a result, Mr. Chernick's testimony stands unrebutted by any persuasive evidence from the Company.

1. MidAmerican has not offered any persuasive evidence that the Company does in fact have a capacity need for all of its coal plants.

MidAmerican witness Mr. Hammer offered several criticisms of Mr. Chernick's testimony regarding whether the Company has a capacity need for all of its coal plants. Upon review, however, none of those criticisms are supported by the evidence.

Mr. Hammer claimed that Mr. Chernick should not have based his assessment of whether the Company has a capacity surplus on MISO's reserve requirements. While Mr. Hammer acknowledged that MidAmerican has 25.4% more generating capacity than required by MISO standards,⁷⁶ he stated: "I wouldn't characterize this as 'excess capacity;' rather, it is a necessary margin of supply resource that will permit MidAmerican to responsibly deliver on its obligation to serve."⁷⁷ He provides two main justifications for this claim: first, that the 25.4% margin does not take into account MidAmerican's Illinois load, and second, that the 25.4% margin above the Company's MISO coincident peak is not as important as MidAmerican's non-coincident summer peak margin, which is 16%.

⁷⁵ Chernick Dir. at 14:17-15:8.

⁷⁶ Hammer Reb. at 15:17-19

⁷⁷ Hammer Reb. at 15:17-16:2.

Neither of these rationales is supported by any evidence in the record. First, Mr. Hammer stated that Mr. Chernick failed to consider MidAmerican's Illinois retail capacity position.⁷⁸ But when asked in discovery to provide support for the statement that MidAmerican is in a capacity deficit position in Illinois, or that the Company has any responsibility to supply that deficit, he answered that that information was not relevant.⁷⁹ Second, Mr. Hammer argued one should assess MidAmerican's capacity needs based on MidAmerican's summer non-coincident peak value, rather than on its MISO summer coincident peak.⁸⁰ Upon cross examination, however, Mr. Hammer admitted that there is no requirement under Iowa law that MidAmerican independently assure resource adequacy during non-coincident summer peak load.⁸¹ Moreover, in discovery, Sierra Club asked MidAmerican to provide any studies it had done on "the effect of retiring any one of the coal units on MidAmerican's 'non-summer peak hour energy resource adequacy.'"⁸² The Company responded that it has done no such study.⁸³ Sierra Club also asked MidAmerican to explain the importance of this "summer non-coincident peak," given the fact that MidAmerican is integrated into MISO and operates in a regional market that assures system reliability based on MISO coincident peak.⁸⁴ MidAmerican responded that the non-coincident peak provides "additional assurance MidAmerican can meet its load... and represents MidAmerican's stand-alone ability to meet its hourly peak."⁸⁵ MidAmerican's position thus appears to be that it "needs" all of its coal plants because the Company should be able to operate in complete isolation of the regional market. However, MidAmerican admitted that it is not

⁷⁸ Hammer Reb. 16:4-5

⁷⁹ Hearing Exhibit 207, Hearing Tr. at 141:10-143:10

⁸⁰ Hammer Reb. at 16:6-11.

⁸¹ Hearing Tr. 143:20-24.

⁸² Hearing Exhibit 208 (Sierra Club Data Request 5-SC-17); Hearing Tr. at 144:22-145:6.

⁸³ *Id.*

⁸⁴ Hearing Exhibit 209.

⁸⁵ Hearing Tr. at 148:11-24; Hearing Exhibit 209 (Sierra Club Data Request 5-SC-18)

required to meet all of its power needs in every hour, and that it can buy energy and capacity on the market.⁸⁶ In fact, in his testimony, Mr. Hammer points to regional market participation as a benefit to customers.⁸⁷

In sum, none of Mr. Hammer's assertions that Mr. Chernick should have based his assessment of the Company's capacity needs for the coal plants on the Company's non-coincident summer peak rather than on its MISO coincident peak proved supported by the record.

Mr. Hammer's next critique of Mr. Chernick's testimony was that he "failed to consider the value of reliability to the system."⁸⁸ But when asked in discovery whether MidAmerican has conducted any analysis on the value of each coal unit for the reliability of the system, MidAmerican responded "None."⁸⁹

Mr. Hammer's third critique of Mr. Chernick's analysis was that Mr. Chernick's analysis "of the coal plant economics are not studies of incremental effect."⁹⁰ In his rebuttal testimony, Mr. Hammer said: "The summary tables of coal plant economics provided by Sierra Club do not consider the incremental effects of Wind XII, instead performing a review of the coal plants in general."⁹¹ Sierra Club agrees with Mr. Hammer that Mr. Chernick conducted a general review of whether the coal plants remain used and useful, and did not limit his analysis to the incremental impact of the Wind XII project, but does not view this as a deficiency. The Board asked the following question: "Wind generation will reduce the percentage of energy production

⁸⁶ Hearing Tr. 148:25-149:11

⁸⁷ Reb. at 13:12-15. ("MidAmerican operates in an RTO market, and sometimes benefits from support offered by other members of the RTO....")

⁸⁸ Hammer Rebuttal at 12:23.

⁸⁹ Hearing Tr. at 139:4-25-140:1-17; Hearing Exhibit 206 (Sierra Club Data Request 5-SC-6).

⁹⁰ Hearing Tr. at 136:1-22; Hammer Rebuttal at 12.

⁹¹ Hammer Reb. at 13:3-5.

needed from other MidAmerican resources. Will MidAmerican's existing generation continue to be used and useful?" MidAmerican witness Hammer acknowledged during the hearing that this question does not refer to incremental effect, and conceded that it is instead a question of "totality."⁹² Confusingly, he went on to assert that MidAmerican has in fact done an analysis of the question in "totality."⁹³ This blatantly contradicts Mr. Hammer's repeated statements that the Company has only looked at the incremental impacts of the Wind XII addition. In his rebuttal testimony, for instance, he stated that "MidAmerican provided economic analyses related to Wind XII and its incremental effect on its existing generation and load."⁹⁴ His testimony at the hearing also makes no sense in light of his previous argument that the appropriate analysis is the "incremental" impact of the project. In any case, it is abundantly clear from Mr. Hammer's testimony at the hearing that in order to determine whether the coal plants remain used and useful, one must examine the entire resource mix, not only the incremental impact of the Wind XII project on those units' economics.

In response to Mr. Chernick's testimony, Mr. Hammer also made a series of sweeping assertions that the coal plants are needed for capacity purposes. As with his other critiques, these assertions turned out to have no evidentiary basis.

In his rebuttal testimony, Mr. Hammer broadly asserted that he disagreed with Mr. Chernick's analysis because: "The coal plants continue to serve as a necessary part of MidAmerican's generation resources necessary to provide reliable electric service at all times of

⁹² Hearing Tr. at 136:25-137:1-9 (Q: "Does [the Board's question] refer to an incremental effect of just the new wind project?" A: "No. It's the analysis in its totality."); Hearing Tr. at 138:2-22 (Q: "So my question is, are you saying that the Board should only be looking at the incremental effect in examining whether coal plants remain used and useful?" A: "No. So I mean in that kind of analysis, it would be similar to this.... You've got to look at -- just like we did in Wind XII, you need to look at everything in the totality.").

⁹³ Hearing Tr. at 137:9-138:17.

⁹⁴ Hearing Tr. at 136:1-22; Hammer Rebuttal at 12.

the day and during all seasons.”⁹⁵ He further asserted that “MidAmerican’s generation mix is reasonable and it has permitted the Company to meet customers’ needs at very reasonable rates and in a manner that has produced impressive system reliability. It is unreasonable to argue these assets are not used and useful.”⁹⁶ However, upon closer scrutiny, it became clear that Mr. Hammer has not done any analysis to support any of these claims.

In discovery, Sierra Club asked Mr. Hammer to provide support for his contention that “MidAmerican’s generation mix is reasonable.” Sierra Club asked Mr. Hammer to define “reasonableness” in this context. He responded: “‘Reasonable’ in this context refers to the fact that MidAmerican’s generation has been the subject of review in past regulatory proceedings, including—depending on the generation project—rate cases, siting proceedings, ratemaking principles proceedings.”⁹⁷ At the hearing, he confirmed that his position is that MidAmerican’s generation mix is reasonable because it has been subject to review in past regulatory proceedings.⁹⁸ He went on to point to the “net system benefit” analysis the Company undertook in this docket as evidence that the Company has analyzed the reasonableness of its resource mix.⁹⁹ When Sierra Club asked Mr. Hammer for any studies showing that MidAmerican’s resource mix is reasonable, Mr. Hammer referred only to the Company’s prior wind applications.¹⁰⁰

There are two major problems with this claim that MidAmerican’s past wind applications are sufficient to demonstrate that the Company’s resource mix is reasonable. First, as discussed in detail above, MidAmerican has repeatedly acknowledged that the “net system benefit”

⁹⁵ Hammer Reb at 9:4-11.

⁹⁶ *Id.* at 9:7-11.

⁹⁷ Hearing Exhibit 203 DR 5-SC-2

⁹⁸ Hearing Tr. at 121-123.

⁹⁹ Hearing Tr. 121-123.

¹⁰⁰ Hearing Exhibit 203; Hearing Tr. 125:7-25-126:1-10

analysis it has provided in this docket and in prior wind applications looked only at the incremental effect of the Wind XII addition,¹⁰¹ and did not look at the economics of its existing generating assets or whether the mix could be made more reasonable by retiring some existing generating assets.¹⁰² Second, Mr. Hammer's assertion is premised on the idea that that the reasonableness of the Company's resource mix cannot change over time, and that once a project is approved in an advance ratemaking principles docket, the entire resource mix remains reasonable indefinitely. This is obviously cannot be true. At the hearing, Sierra Club asked Mr. Hammer whether his position is that once something has been approved in a past regulatory proceeding, it remains reasonable indefinitely. Mr. Hammer responded that the appropriate time to review the reasonableness of the resource mix is during a rate case -- a concept that is also problematic, as discussed in greater detail, below.¹⁰³

Sierra Club also asked Mr. Hammer about the basis for his assertion that "MidAmerican's generation mix... has permitted the Company to meet customers' needs at very reasonable rates."¹⁰⁴ Specifically, Sierra Club asked whether Mr. Hammer analyzed whether MidAmerican's rates might not be made more reasonable by conducting the cost-effectiveness analysis that Sierra Club has requested. Mr. Hammer responded that no such analysis has been conducted.¹⁰⁵

In sum, Mr. Hammer's attempts to rebut Mr. Chernick's testimony regarding whether MidAmerican's coal plants are needed for capacity purposes were not supported by analysis or evidence in the record. His sweeping, conclusory, and unsupported claims about a capacity need

¹⁰¹ Hearing Tr. 123:12-25.

¹⁰² Hearing Tr. at 135:11-25-136:1-2.

¹⁰³ Hearing Tr. at 124:1-8

¹⁰⁴ Hammer Reb. at 9; Hearing Tr. 126:11-25-127.

¹⁰⁵ Hearing Tr. 128:2-6.

for all of MidAmerican's coal plants do not represent a credible counterweight to Mr. Chernick's thorough and fact-driven analysis.

2. MidAmerican has also not offered any persuasive evidence that the Company needs all of its coal plants for energy purposes.

Just as the Company failed to offer any concrete analysis supporting its contention that all of its existing coal units are needed for capacity purposes, the Company similarly offers no evidence on rebuttal that it has conducted any analysis showing that those units are needed for energy purposes.

Mr. Hammer does not even attempt to rebut Mr. Chernick's testimony that some of MidAmerican's coal plants appear to be losing money in the energy markets.¹⁰⁶ When Sierra Club asked Mr. Hammer whether he believes the cost of a generation resource is relevant to a determination of whether that resource is used and useful, Mr. Hammer dodged the question, instead responding only that "MidAmerican has provided reasonable information to answer the Board's questions about the 'used and usefulness' of our fleet..."¹⁰⁷ Mr. Chernick's testimony is thus unrebutted by Mr. Hammer on this issue.

Mr. Hammer did offer the following critique Mr. Chernick's testimony: "The Sierra Club cites lower historical coal unit capacity factors as evidence the coal units can be shut down (i.e., are not needed)."¹⁰⁸ He argues that "[r]ecent historical capacity factors are not an indicator of long-term unit capacity factors or value."¹⁰⁹ This argument is problematic in two ways. Mr. Hammer himself noted in his testimony that capacity factors do provide some indication of

¹⁰⁶ See Hearing Tr. at 130:4-13; 133:16-20 (acknowledging that he did not testify regarding ongoing costs and revenues of system generating assets).

¹⁰⁷ Hearing Tr. at 134:4-24

¹⁰⁸ Hammer Rebuttal at 8:23.

¹⁰⁹ Hammer Reb. at 9:10-11.

whether a coal plant is economic.¹¹⁰ MidAmerican's own projections show some units (particularly ██████████) performing worse in the future than in the recent past. Moreover, Mr. Hammer's criticism misleadingly implies that Mr. Chernick's analysis is solely based on a review of the coal plants' historical capacity factors. This is clearly not the case - a fact that Mr. Hammer admitted at the hearing.¹¹¹

Mr. Wright made a small, footnoted argument in his direct testimony that the Company's fossil units are needed to balance wind resources for reliability purposes. That footnote states: "Customers will still require some energy production from fossil-fueled and nuclear generation, as well as some market purchases, to ensure reliability of the system at all hours."¹¹² During the hearing, Mr. Wright testified that he expects a significant percentage of total electricity generation to continue to come from coal-fired generation. He stated: "[W]e're going to have to continue to rely upon our coal and natural gas assets, and so while we're serving, on an annual basis, enough renewable energy to meet our customers' load over the course of an entire year, there are going to be valleys when the wind is not blowing and we'll have to rely upon other generation assets. So we will still have a significant use of coal for some of our customers."¹¹³

However, when Sierra Club asked Mr. Wright whether the Company has analyzed just how much of its fossil generation it will need to balance its wind resources, he responded that the Company has done no such analysis.¹¹⁴ ("Q. Have you analyzed how much of this energy

¹¹⁰ Hammer Dir. at 38 (stating that coal plants generally must operate above a 60% capacity factor to be economic).

¹¹¹ Hearing Tr. at 128-129 (Q: "And Mr. Chernick did not just look at historical capacity factors and conclude that the units are no longer used and useful, did he?" A: "There were other things in there, I would agree with that...." Q: "Would you agree that he also looked at the costs of operating those units and the revenue they earn in the market, or could be expected to earn?" A: "He looked at energy values.").

¹¹² Wright Dir. at 9 FN 2.

¹¹³ Hearing Tr. at 21:14-25 - 22:1-2

¹¹⁴ Wright Hearing Tr. at 23, lines 2-7.

produced from fossil-fueled and nuclear generation will be required to meet your customers' needs? A. No. It just depends on how the year goes and how much the wind blows.”). Moreover, he acknowledged that the Company has not done any analysis of whether could less expensively meet any energy requirements with one less coal unit online.¹¹⁵

Further, during the hearing, Mr. Wright made clear that MidAmerican operates its coal units regardless of whether they are “needed” for the purpose of balancing wind. He acknowledged that MidAmerican does not operate its coal plants only as a balancing resource, but instead buys and sells all of its energy generation in the MISO market.¹¹⁶ In effect, MidAmerican is likely generating far more energy than it needs as a load-serving entity.

It is worth noting that Mr. Wright’s contention that its coal generating assets are needed to balance its renewable generation is one of the key contradictions of this proceeding. Throughout its application, MidAmerican makes repeated statements that one of the key benefits of the Wind XII project is that it will achieve the company’s “100% renewable energy vision” by allowing the Company to meet all of its retail customers’ energy needs with renewable energy.¹¹⁷ Mr. Wright asserts in his testimony that the Company’s 100% renewable vision is a key economic driver because it is attracting sustainability-minded customers to the state.¹¹⁸ However,

¹¹⁵ Hearing Tr. at 26:21-25-27:1-2.

¹¹⁶ Hearing Tr. at 23:15-24:23 (“we participate in the MISO market, and so we basically sell our generation assets into that market, and then we--I do not want get to wonky because it is what it is. We buy that load back. So if MISO calls on us to run that generation beyond what’s required to meet just our customers’ load, we’ll generate.”)

¹¹⁷ See, e.g., Wright Direct at 4:6 (“Based on current projections, in 2021, MidAmerican will be able to serve 103% of its Iowa customers’ annual energy needs with renewable energy.”); MidAmerican Motion to Strike (Aug 10, 2018) at 3 (“With its Wind XII application, MidAmerican is also taking the final steps to becoming the first investor-owned utility in the country to be 100% renewable on an annual basis.”)

¹¹⁸ Wright Dir. 14:15-18; Wright Dir. at 23:5-13 (“The combination of low electric rates and renewable energy availability brings other benefits to Iowa and give it a one-of-a-kind competitive advantage. This includes manufacturing and construction work related to renewable energy development, as well as industries that are focused on energy price and environmental sustainability like Iowa’s growing tech industry. As stated in the Iowa Energy Plan (page 4): “As a result of the state’s commitment to

it is clear from Mr. Wright's discussion that the Company in fact has no such intention of meeting all of its customers' needs with renewable energy. For instance, Mr. Wright acknowledged that MidAmerican's 100% renewable energy vision does not include any plans to retire additional fossil generating assets.¹¹⁹ Mr. Wright testified at the hearing that "although we have enough renewable generation to produce an amount that is equivalent for our customers on an annual basis, we are still going to have to rely on our fossil fleet to do so, and we have not looked at retiring generation...."¹²⁰

MidAmerican cannot have it both ways. If it is indeed attracting customers to Iowa because of its 100% renewable energy vision, then the basis for needing *coal-fired* generation cannot also be those customers. MidAmerican's assertion that it can generate a large amount of its electricity from coal while also claiming to meet 100% of its customers' needs with renewable energy is at best extremely misleading, and may seriously jeopardize Iowa's long-term ability to continue to market itself as a renewable energy leader.

3. MidAmerican itself made the case that some kind of integrated resource planning process is needed to assess whether its resource mix is needed.

It is important to point out another interesting (albeit self-contradictory) critique that MidAmerican's witnesses made of Mr. Chernick's testimony. At several points during the hearing, Mr. Hammer began to argue that Mr. Chernick's testimony is insufficient to determine whether the coal units are "used and useful," and that a more comprehensive, "multifaceted" analysis is needed. For instance, when Sierra Club asked Mr. Hammer whether, in order to understand whether existing assets remain used and useful, one would want to look at ongoing

renewable energy and its low energy prices, Iowa has attracted major tech companies to the state including Google, Microsoft, and Facebook." MidAmerican's pursuit of Wind XII, and its long-term vision, should serve to enhance Iowa's and MidAmerican's ability to attract sustainability-minded companies to Iowa.")

¹¹⁹ Hearing Tr. 22:7-14.

¹²⁰ Wright, Hearing Tr. at 27:2-19

operating costs and revenues, Mr. Hammer said: “I guess I would say there are many factors that would be important to that. It's a multifaceted analysis. There are many complicated factors that need to be looked at in that kind of analysis.”¹²¹ He added: “Ongoing costs that add reliability to the system, multiple scenarios about potential futures, those are all possible things that we would want to look at.”¹²²

Mr. Specketer made a similar assertion that understanding the economics of the coal plants requires consideration of a variety of factors. For example, at the hearing, Mr. Specketer stated that it is not sufficient to look only at energy costs and revenues; instead, it is necessary to look “well into the future, make determinations of what you think is going to happen in the future, what the cost of eventual replacement energy or load growth is or environmental considerations are, all of those sorts of things.”¹²³

In effect, both of these witnesses appear to be making the case that a process akin to an integrated resource plan is required to assess whether all of MidAmerican’s generation remains used and useful. As discussed below, Sierra Club wholeheartedly agrees that an integrated resource plan or similar process would be extremely helpful to assessing the used and usefulness of MidAmerican’s existing generating assets, and would strongly support a Board requirement that the Company submit a integrated resource plan to the Board in the near future.

4. The Board cannot take for granted that MidAmerican will develop a reasonable resource mix without additional Board oversight.

As shown above, MidAmerican’s claim that its resource mix continues to be reasonable is not supported by any robust analysis or study. In essence, MidAmerican’s argument boils down to a claim that the Company should be entrusted with sole oversight in determining

¹²¹ Hearing Tr. at 129:6-19

¹²² Hearing Tr at 129:16-19.

¹²³ Hearing Tr. at 102:2-17.

whether its resource mix is reasonable. But the Iowa Code tasks the Iowa Utilities Board with ensuring that the public interest is protected, and does not leave it to the monopoly utility to determine what is in its customers' best interests.

This statutorily-required Board oversight is imperative because, as Mr. Chernick points out in his testimony, a monopoly utility that can recover costs from ratepayers does not have the same incentives to reduce its costs as does a pure merchant generator. Mr. Chernick describes three ways in which MidAmerican may be keeping its coal plants running at relatively high capacity factors even if they are uneconomic.¹²⁴

First, MidAmerican may have designated units as "must run," which would ensure that MISO will dispatch them, regardless of cost or price.¹²⁵ As discussed above, in MidAmerican's PROMOD analyses, the Company modeled ████████ of its coal units as "must run." Thus, the projected capacity factors for those units may be inflated and include hours in which they are operating uneconomically.¹²⁶

Second, Mr. Chernick notes that when MidAmerican bids the units into the MISO energy market, it may be bidding them in at prices below their short-run marginal costs.¹²⁷ MidAmerican did not provide its bid prices in this docket, so it cannot be determined at this point whether MidAmerican is doing so.¹²⁸ While merchant generators are dis-incentivized to engage in this behavior because they would lose money on every megawatt-hour sold, vertically integrated utilities can often count on recovering those losses from their customers via non-market mechanisms.¹²⁹

¹²⁴ See Chernick Dir at 6-7

¹²⁵ Chernick Dir. at 6:6-18.

¹²⁶ *Id.*

¹²⁷ Chernick Dir. at 6:19-7:2.

¹²⁸ *Id.*

¹²⁹ *Id.* at 7:10-15.

Third, Mr. Chernick points out that the coal units incur costs, such as fixed O&M and capital additions, that the Company would not include in the hourly energy market bids but that would need to be covered by the profit from market sales in order to be economical.¹³⁰ If the Company is ignoring those costs because it can recover them through other mechanisms, and is instead basing its bid prices on only hourly fuel and variable O&M, the Company may be choosing to keep operating plants that can profit in many hours of the year on an hourly basis, but which still lose money on an annual basis.¹³¹ If the company were a merchant generator, it would be incentivized to retire any power plants that are not covering their forward-going costs; because MidAmerican is not subject to the discipline of the market, that role falls to the Board.¹³²

IV. **RECOMMENDATIONS**

To ensure that MidAmerican's resource mix is reasonable, the Board should modify the proposed Joint Stipulation and Agreement by adopting Sierra Club's recommended modifications. As demonstrated above, MidAmerican has not shown that its resource mix, including its extensive coal generating fleet, continues to be reasonable in light of the trend towards low-cost wind generation, and so has failed to demonstrate that its proposed advanced ratemaking principles are reasonable. Mr. Chernick's testimony casts serious doubt on the continued reasonableness of MidAmerican's resource portfolio, and suggests that several of the Company's coal plants may no longer be used and useful.

The ratemaking principles contained in the proposed joint settlement do nothing to ensure that MidAmerican will transition towards a more reasonable resource mix. To address this major

¹³⁰ *Id.* at 7:3-9.

¹³¹ *Id.*

¹³² *Id.* at 8:1-9.

deficiency, the Sierra Club urges the Board to adopt two modifications to the Proposed Settlement. First, and most importantly, the Sierra Club recommends that the Board require MidAmerican to conduct an analysis of whether its coal plants remain cost-effective. As discussed further below, this could take the form of a stand-alone analysis of the coal plants' continued economic utility. Alternatively, the Board could require the utility to come in for an integrated resource planning process, which would provide even greater assurance that the Company will develop a reasonable resource plan. As an important change from Sierra Club's pre-hearing brief and its Comments on the Proposed Settlement ("Comments"), Sierra Club points out that the Board has the authority to require MidAmerican to conduct this analysis regardless of whether it moves forward with the Wind XII project. This approach would serve to neutralize the Company's threat that it may decide not move forward with the Wind XII project if the Board adopts Sierra Club's recommendations - even if it means sacrificing the shareholder earnings and customer benefits associated with that project.

Second, Sierra Club recommends that, under the proposed "rate mitigation" and "retail energy benefits" principles, the Board re-order the Company's existing generation to first depreciate some of the Company's older coal units. This second principle would remove one of the Company's disincentives to retire uneconomic coal plants, which is that it continues to have undepreciated balances for those units that it may fear it will not recover if those units do not continue to operate. However, this principle will only benefit customers if units are in fact removed from the rate base in the year they are fully depreciated.

A. The Board should require MidAmerican to either conduct a comprehensive analysis of the continued “used and usefulness” of its coal generation, or should require MidAmerican to submit an Integrated Resource Plan to the Board.

Sierra Club’s first and most important recommendation is that the Board should require MidAmerican to conduct a comprehensive analysis of the costs and benefits of continued operation of its coal fleet. This would address the serious concern identified by Mr. Chernick that MidAmerican’s coal plants may no longer be economic and beneficial to ratepayers in light of the regional trend towards low-cost wind generation.

In Sierra Club’s Comments, Sierra Club recommended that the Board modify the Proposed Settlement by adopting the following additional ratemaking principle:

“Within one year, MidAmerican must file with the Board a comprehensive analysis of the cost-effectiveness of each of its coal-fired generating units. MidAmerican must update this analysis bi-annually and shall provide the Board an opportunity to review through a contested hearing whether the coal units remain used and useful and whether continued operation is in the public interest.”¹³³

Providing the Board with an opportunity to review the Company’s filing through a contested proceeding is critical; otherwise, MidAmerican might simply file a document that it alleges shows the coal plants continue to be used and useful, without providing any robust evidentiary basis for that assertion, as has in fact occurred in this proceeding. A contested proceeding is essential to ensuring MidAmerican’s submission is rooted in a sound evidentiary record.

Alternatively, the Board could instead require MidAmerican to file an integrated resource plan. An integrated resource planning process has the advantage of assessing the reasonableness of the Company’s entire resource mix in one venue, rather than in a piecemeal fashion. For

¹³³ See Sierra Club’s Comments, (filed September 28, 2018) at 2.

instance, it might be that some combination of retiring certain uneconomic coal units and additions of cleaner sources of energy and demand-side management might present the most reasonable mix of resources, in light of cost, reliability, environmental considerations, and other relevant factors.

MidAmerican has acknowledged that the Board has the ability to issue such a requirement. During the confidential portion of the hearing, Mr. Hammer testified: “

[REDACTED]

[REDACTED]”¹³⁴

Adopting Sierra Club’s recommendation that MidAmerican must either file a comprehensive review of its coal plants’ economics or file an integrated resource plan is essential to addressing the significant concerns Mr. Chernick identified in his testimony. As discussed above, it appears that several of the Company’s coal plants are no longer be economical, nor are all needed to meet the Company’s capacity and reliability needs.

Adopting Sierra Club’s recommendation would also address the alarming fact that MidAmerican does not currently conduct any internal resource planning. Throughout this proceeding, MidAmerican has repeatedly confirmed that it does not conduct resource planning of any kind. For instance, the Company has not analyzed whether there are more economic and reasonable ways to meet its customers’ capacity and energy needs; has no idea how much of its fossil generation is needed to meet those needs; and has no plans to review the continued “used and usefulness” of its coal plants.¹³⁵

1. **Without Board action, MidAmerican will not undertake the analyses needed to ensure that its resource mix is reasonable.**

¹³⁴ [REDACTED]

¹³⁵ See *supra* section III.A.2.

During the hearing, it became alarmingly clear that without some additional Board action, MidAmerican has no intention of ever conducting resource planning or any other sort of analysis into whether its resource mix remains reasonable. Further, MidAmerican's position appears to be that the Board has no opportunity to examine the continued cost effectiveness of the utility's existing generation outside of its rate case, which the Company does not expect to need to file in the near future.

In his rebuttal testimony, MidAmerican witness Mr. Hammer testified that intervenors' recommendations were "unnecessary" because there are other proceedings where a review could occur. He listed siting certificates, EPB dockets, and rate cases as other such proceedings.¹³⁶ At hearing, however, he clarified that he believes that the only appropriate venue for reviewing the company's existing generation's cost effectiveness is the Company's next rate case.¹³⁷

MidAmerican's CEO Mr. Wright provided an even more startling position on this question. When Board Member Lozier asked Mr. Wright whether there is "some other venue where you would support the Board's review of your coal plants' cost effectiveness," he responded, "No, there is not."¹³⁸ He added: "Again, in Iowa we don't have integrated resource planning, and there's a reason for that, because, again, it creates uncertainty."¹³⁹ During the confidential session, MidAmerican also admitted that [REDACTED]

[REDACTED] 140

As Kerri Johannesen discussed at the hearing, the Board could address this problem by requiring the company to file rate cases on a more regular basis.¹⁴¹ However, doing so would

¹³⁶ See Hammer Rebuttal at 8:9-17; Hearing Tr. at 115:22-25-118:1-25.

¹³⁷ Hearing Tr. at 119:1-20

¹³⁸ Hearing Tr. at 39:14-20.

¹³⁹ *Id.*

¹⁴⁰ CONFIDENTIAL Hearing Tr. at 196:2-18.

¹⁴¹ Hearing Tr. 157:1-8.

carry the risk that ratepayers would experience a rate hike as a result of incorporating the capital costs of the various wind projects into the rate base. This would disrupt the current ratemaking principles structure that prevents a large rate impact to customers by allowing the Company to recover the costs of the wind projects outside of rates.

2. The Board should reject MidAmerican’s meritless claim that requiring it to conduct an assessment of its coal plants’ economics would generate an unreasonable amount of “uncertainty.”

MidAmerican has asserted that, if the Board were to adopt Sierra Club’s recommendation and modify the ratemaking principles to require the Company to review the cost-effectiveness of its coal plants, MidAmerican would “very, very strongly consider” withdrawing its proposal because “it creates uncertainty for future development and the completion of this project.”¹⁴² Mr. Wright testified that “it would inject a significant amount of uncertainty into MidAmerican’s future generation portfolio and our ability to serve customers reliability and at reasonable rates.”¹⁴³

Upon further scrutiny, however, it became clear that MidAmerican has no reasonable basis for its concerns about “uncertainty.” In fact, many of the Company’s concerns weigh in favor of, not against, some kind of resource planning or cost effectiveness review by the Board.

For instance, when Sierra Club asked Mr. Wright what he meant when he said that Sierra Club’s proposal would inject uncertainty “into MidAmerican’s future generation portfolio,” he responded: “in the future we could have load increases, there could be environmental issues that come into play to bear, things that we’re just not necessarily aware of yet that require us to have to have those assets to serve our customers, and in the future if that capacity is needed, then

¹⁴² Hearing Tr. 31:23-25-32:1-5

¹⁴³ Wright Rebuttal at 10:19-11

we're in a position where we have to buy it, and we don't know at what cost.”¹⁴⁴ Sierra Club then asked Mr. Wright whether it would not in fact be beneficial if a Board review of the Company's resource mix were to result in a reduction of uneconomic generation while still preserving the Company's reliability at reasonable rates. Mr. Wright responded that he “doesn't really know.”¹⁴⁵ He added: “I don't really know what it's going to look like in the future, but I know what we have in hand today to serve our customers reliably....”¹⁴⁶

However, assessing the robustness of a Company's resource mix in light of an uncertain future is precisely what a resource planning process is designed to accomplish. The appropriate response to an uncertain future should not be to ignore it altogether, but should instead be to examine whether the resource mix will continue be reasonable under a variety of potential future scenarios.

Mr. Wright also argues that an assessment of MidAmerican's coal units' economics would create uncertainty regarding MidAmerican's ability to serve its customers reliably. When asked in discovery why such an analysis would create uncertainty regarding MidAmerican's ability to service its customers reliably, MidAmerican circularly responded that Sierra Club's proposal “would require MidAmerican and the Board to engage in further study of the economics of a portion of MidAmerican's existing fleet.”¹⁴⁷ When Sierra Club explicitly asked Mr. Wright whether he is taking that position that a Board review of the coal plants' cost effectiveness would threaten the Company's ability to serve customers reliably, Mr. Hammer

¹⁴⁴ Hearing Tr. at 34:5-12

¹⁴⁵ Hearing Tr. at 32:15-25, p. 35:1-3.

¹⁴⁶ Hearing Tr. at 35:4-7.

¹⁴⁷ Hearing Exhibit 201 (MidAmerican Discovery Response to Sierra Club data request 6-SC-4); Hearing Tr. at 47:4-12.

responded that he believed it could.¹⁴⁸ Given that the Board is charged by law with ensuring that public utilities meet customers' needs reliably and at reasonable rates, such a concern is clearly entirely without merit.

Mr. Wright also asserted that requiring the Company to assess whether its coal plants remain cost effective would create uncertainty regarding whether the Company would continue to be able to meet customers' needs "at reasonable rates."¹⁴⁹ Once again, further scrutiny showed that Mr. Wright has no basis for this statement. At the hearing, Sierra Club asked Mr. Wright to explain how retiring a coal plant that is not cost effective - i.e., that costs more to own and operate than it earns - could negatively impact the Company's ability to serve customers at reasonable rates, Mr. Wright refused to directly answer the question.¹⁵⁰ Eventually, he responded: "Today I know what it costs to serve those customers. We have a cost of service established. They're in our rates. We know what they're paying. We know how they compete: Ninth lowest in the country, highly reliable, moving towards a hundred percent renewable. In the future I don't know what that asset is going to cost, so it creates speculation, it creates uncertainty, and it could negatively impact the reliability and the cost effectiveness of serving our customers."¹⁵¹ His argument boils down to a claim that because the Company knows what its costs are now, it should not look at whether those costs might be more reasonable if some uneconomic assets were removed. This argument is without merit. As Board Member Lozier rightly pointed out, if the Company were required to do an analysis of the risks associated with

¹⁴⁸ Hearing Tr. at 47-49:1-9 (Q. "Do you think a Board review could threaten your reliability?" A. "I believe it could. It depends on what we're reviewing, what the factors are...." Q. "But are you saying that you think the Board would order you to do something that could make your system unreliable?" A. "I don't know.")

¹⁴⁹ Wright Rebuttal at 10:19-11

¹⁵⁰ Hearing Tr. at 49:25-51:22

¹⁵¹ Hearing Tr. at 51:13-22.

its portfolio, it would have a better understanding of what the risk is and the uncertainty that would be involved.¹⁵²

3. The Board should require MidAmerican to submit a cost-effectiveness review of its coal units (or an Integrated Resource Plan) regardless of whether MidAmerican moves forward with the Wind XII project.

Ratemaking principles are supposed to strike a balance between risks and benefits to shareholders and consumers. Unfortunately, MidAmerican's position that a cost effectiveness review of its coal plants would generate an "unreasonable" amount of uncertainty appears to be based solely on a concern that the Board may find that some of its coal units are operating uneconomically. It is highly concerning that the Company appears poised to hurt both shareholders and ratepayers by not going forward with a wind project that would earn the company a tremendous amount of money *and* that would save customers money, if it would otherwise mean contemplating Board oversight over its resource mix. The Company appears to be arguing that it would be better to pass up on the tremendous financial opportunity offered by the Wind XII project in order to "protect" the Company from Board oversight.

Given the Company's position that it might walk away from the Wind XII project if it means it would otherwise be required to review the cost effectiveness of its coal plants -- even if doing so would be to the detriment of both shareholders and ratepayers -- Sierra Club now recommends that the Board neutralize MidAmerican's threat by ordering Company to file a cost effectiveness review regardless of whether MidAmerican moves forward with the Wind XII. In

¹⁵² Hearing Tr. at 92:1-4

other words, a cost effectiveness review or integrated resource plan filing could instead be required regardless of how the Company proceeds in this docket.

B. The Board should also consider modifying the “rate mitigation” and “retail energy benefits” principles to first depreciate some of MidAmerican’s older and likely uneconomic coal units.

In its Comments, Sierra Club also recommended that the Board modify the “rate mitigation” and “Iowa retail energy benefits” principles so that the revenue sharing and Iowa retail energy benefits are instead applied to MidAmerican’s generating assets in the following order:

- 100% to George Neal North Unit 3, then
- 100% to George Neal South Unit 4, then
- 100% to Walter Scott 4.

Re-ordering would accelerate depreciation of at least two of MidAmerican’s coal units that appear to be costing ratepayers more than they earn, facilitating their removal from the rate base at an earlier date. As discussed in greater detail in Sierra Club’s Comments, customers could benefit by an estimated \$ [REDACTED] from this re-ordering.

Mr. Wright indicated during the hearing that, if the Board were to adopt this modification, MidAmerican would be willing to consider it.¹⁵³ Moreover, MidAmerican has previously expressed a concern that “remaining book value would impact the economics of early retirements.”¹⁵⁴ Re-ordering could thus assist in facilitating the Company’s decision to retire uneconomic units by removing this concern.

However, as Sierra Club noted in its Comments, re-ordering only results in benefits to customers if units are removed from the rate base in the year in which they are fully depreciated, something that MidAmerican has made clear it is not willing to agree to as part of this

¹⁵³ Hearing Tr. at 60:4-19, 62:3-15.

¹⁵⁴ Hammer Reb.at 13:5-7, Hearing Tr. at 19-25.

proceeding. Thus, if the Board adopts Sierra Club's proposed re-ordering, it is critical that the Board also adopt Sierra Club's first recommendation in order to ensure the economic benefits of re-ordering will accrue to customers in a timely manner.

V. **CONCLUSION**

For the reasons stated herein, the record holds substantial evidence that MidAmerican's resource mix as a whole may no longer be reasonable. In particular, several of the Company's coal plants appear uneconomic, and yet the Company has no plans to transition away from those plants -- or even to study whether they should do so. As a result, the advance ratemaking principles proposed by the Company require modification to strike the appropriate balance between risks to ratepayers and shareholders. Sierra Club has offered two modifications that would strike this balance. Moreover, the Company should not be permitted to hold the Board hostage by staking its willingness to move forward with a project that will save customers money on the Board not ever reviewing the economics of its existing assets. More low cost wind that saves money and generates carbon-free electricity makes good sense for customers and shareholders alike; but this does not mean the Board should be precluded from reviewing whether the Company's existing generation portfolio remains reasonable. For this reason, Sierra Club recommends that the Board require MidAmerican to submit a comprehensive study of the cost-effectiveness of its existing generating assets, or an integrated resource plan, for its review regardless of its approval of the proposed advance ratemaking principles.

Respectfully submitted,

/s/ Gabe Rowberry
M. Gabriel Rowberry
The Law Office of Patrick J. Sodoro
702 N. 129th Street
Omaha, NE 68154
Tel: 402-504-9346
Email: mrowberry@patrickssodorolaw.com

/s/ Laurie Williams

S. Laurie Williams, *admitted pro hac vice*

Staff Attorney

Sierra Club

1536 Wynkoop St. Suite #200

Denver, CO 80202

Tel: (303) 454-3358

Email: laurie.williams@sierraclub.org

Dated October 29, 2018