March 5, 2019

Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 Seventh Place East, Suite 350
St. Paul, MN 55101-2147

VIA ELECTRONIC SERVICE

Re: **Sierra Club Initial Comments In the Matter of XcelEnergy's Petition for Approval of the Acquisition of the Mankato Energy Center (MEC)**
Docket No. IP6949, E002/PA-18-702

Dear Mr. Wolf:

Attached are the Initial Comments of Sierra Club in the following matter:

> In the Matter of the Petition of Xcel Energy for Approval of the Acquisition of the 375 MW Mankato Energy Center and the 345 MW Mankato Energy Center II

Sincerely,

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Enclosures

STATE OF MINNESOTA

BEFORE THE PUBLIC UTILITIES COMMISSION

In the Matter of the Petition of Xcel Energy for Approval of the Acquisition of the 375 MW Mankato Energy Center and the 345 MW Mankato Energy Center II	)))))	Docket No. IP6949, E002/PA-18-702

SIERRA CLUB INITIAL COMMENTS

Developed with the Assistance of Applied Economics Clinic

March 5, 2018

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I. INTRODUCTION

Sierra Club submits these comments on Xcel Energy's Petition for Approval of the Acquisition of the 375 MW Mankato Energy Center and the 345 MW Mankato Energy Center II (collectively, "Mankato" or "MEC"), filed November 27, 2018 (hereinafter, "Petition"). Sierra Club opposes approval of the Petition because Xcel has not met its burden of showing that the proposed acquisition is consistent with the public interest.

The proposed transaction, which Xcel seeks to characterize as a mere asset transfer, represents a significant new commitment to additional fossil generation through 2054 that is inconsistent with the State's greenhouse gas reduction goals and with the Company's own commitment to be carbon-free by 2050, which it has stated broadly to the public, elected officials, and to its investors. In its Petition, which would allow the utility to add nearly $650 million to its rate base, Xcel is prematurely asking the Commission to approve a major acquisition for which there is no demonstrated need. Xcel's own analysis forecasts that, under the most reasonable scenario modeled, the acquisition will not result in net economic benefits to customers until 2045. Far from increasing its flexibility, as the utility contends, the acquisition would lock customers for decades into paying for yet another fossil-burning asset that is at risk of becoming stranded before it begins to provide customers with benefits, and that could preclude Xcel from instead investing in cleaner, less expensive alternatives. Moreover, Xcel's application wrongly justifies the addition of Mankato, representing 760 MW[1] of fossil fuel generation, to its portfolio by alluding to the benefit of "potential" coal plant retirements. These speculative and unenforceable claims should not obfuscate Xcel's request that ratepayers be on

[1] With performance improvements recently made to the plant, the total capacity of the MEC I and MEC II system is expected to be 760 MW.

the hook for a risky bet on a large fossil-fuel burning power plant that the Company plans to operate into the 2050s.

The timing of this acquisition – on the eve of Xcel's IRP filing – further obscures the risks of MEC by preventing a full assessment of the plant in light of Xcel's entire resource portfolio, including allowing the Commission and stakeholders a full view of Xcel's plans to add a second large gas plant in Becker, Minnesota. Rather than permitting the Company to rate base an expensive and risky fossil-fuel asset before it has comprehensively assessed whether that asset is reasonable in light of its entire resource portfolio plan, the Commission should defer consideration of the proposed MEC acquisition to the Company's forthcoming Integrated Resource Plan. Such a deferral would allow the Commission and stakeholders to assess whether the proposed acquisition is the most reasonable, least cost and prudent resource under a robust consideration of all other possible alternatives, and in conjunction with other key resource decisions, such as clear and concrete plans to accelerate retirement of its coal plants and to prioritize replacement with clean energy over gas, as required by Minnesota law.

As detailed below, Xcel has failed to demonstrate that the acquisition of MEC is in the public interest, and so its Petition to own and rate base MEC should be denied.

II. PROCEDURAL BACKGROUND

On January 11, 2017, the Commission issued its Order Approving Plan with Modifications and Establishing Requirements for Future Resource Plan Filings in Xcel Energy's 2016-2030 resource plan ("2015 IRP") proceeding.[2] Among other findings, the Commission required Xcel to file its next resource plan on February 1, 2019.

[2] Docket No. E002/RP-15-21

On October 15, 2018, Xcel asked the Commission extend the due date of its next IRP filing to July 1, 2019.[3] The Company did not cite the potential for acquiring the Mankato Energy Center as part of its rationale for requesting the delay. On November 6, 2018, the Company filed a notice stating that it would be requesting approval of the acquisition of Mankato Energy Center. On November 27, 2018, Xcel filed its Petition, which proposes to terminate its existing purchase power agreements ("PPAs") with the 375 MW Mankato Energy Center unit 1, currently set to expire in 2026, and the 345 MW Mankato Energy Center unit 2, currently set to expire in 2039, and acquire the entire facility.

III. STANDARD OF REVIEW

The standard of review for a resource acquisition is whether the acquisition is prudent and "consistent with the public interest."[4] Given the context and timing of the proposed acquisition, the Commission should either incorporate the statutory requirements of Minnesota Statutes Section 216B.2422 into this proceeding, or defer consideration of the Petition into the Company's integrated resource planning ("IRP") docket.

The context of the proposed acquisition in this Petition is important. Through this petition, the Company is seeking to acquire a major fossil fuel resource without first identifying the size, type, and timing of any needed resource additions through its integrated resource planning process. This is particularly problematic because Xcel is currently preparing for its next integrated resource plan, and requested a delay in its IRP filing deadline prior to filing its proposal to acquire the MEC plant. The upcoming resource plan is the proper forum to consider the size, type, and timing of the portfolio of resources that could most reasonably, at least cost

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[3] *Id.*
[4] Minn. Stat. § 216B.50 (2018); Notice of Comment Period, Docket No. PA-18-702, December 20, 2018.

and risk, and most consistently with Minnesota's greenhouse gas reduction goals, meet Xcel's energy and capacity needs.

The record demonstrates that Xcel determined that it wanted to acquire the MEC plant before it proposed to delay its integrated resource plan filing. The Company became aware that Southern Power was considering selling MEC on August 23, 2018.[5] Xcel began negotiating with Southern Power on August 31st, and submitted a bid on September 7th; it signed non-binding letter of intent entered on October 2nd.[6] Xcel then filed its extension request for its integrated resource plan in Docket No. E002/RP-15-21 on October 15th, requesting to delay its filing to July 1, 2019. Xcel gave notice that it would be requesting to acquire MEC on November 6, 2018. The Company stated that it was not allowed to discuss the proposed acquisition publicly until November 5, 2018.[7] However, the Company has not offered any reason why it could not have waited to ask for an extension on its IRP filing until after the Company made its MEC acquisition proposal public.

Xcel's Petition circumvents the integrated resource planning process by proposing to add a major fossil fueled resource acquisition to its portfolio without consideration of reasonable alternatives to that acquisition. In its Petition, Xcel conducts an economic analysis of the proposed acquisition that compares the present value of revenue requirements ("PVRR") savings from purchasing the plant to the status quo of maintaining the PPAs through their current end dates (2026 and 2039, respectively). The Company also compares the present value of societal cost ("PVSC") for these two options. Xcel's analysis thus is limited to a comparison between two options – maintaining the existing PPAs, or acquiring the plant – and did not evaluate any

[5] Xcel's response to OAG IR 24, attached as Exhibit SC-01.
[6] *Id.*
[7] Xcel's response to CUB IR 11, attached as Exhibit SC-02.

other alternatives. Approving the acquisition based on this narrow analysis forecloses review through the comprehensive, portfolio-based analysis that would occur in an integrated resource planning process. Moreover, the current PPAs secure MEC's capacity through 2026 and 2039, seven and twenty years from now. In years closer to the expiration of the PPAs, more accurate information will be available regarding the least cost resource mix to meet capacity and energy needs. Instead, the Company is asking the Commission to lock in resource decisions today that could be made in 2026 and 2039, and hold ratepayers to that decision into the 2050s. There is simply no urgency to make such a major new commitment to fossil fuels at this time.

Given the proximity of Xcel's Petition to its IRP filing, if the Commission decides to move forward with consideration of the Company's Petition at this time, the Commission should incorporate the statutory requirements of Section 216B.2422 into its consideration of whether the acquisition is prudent and consistent with the public interest. This would be consistent with the Commission's Order in *Re: Minnesota Power's Application for Approval of its 2015-2029 Resource Plan*, PUC Docket No. E015/RP-15-690.[8] There, the Commission referred Minnesota Power's proposal to construct the Nemadji Trail Energy Center gas plant ("Nemadji") to a contested hearing, and incorporated resource planning and certificate of need standards into the review of that proposal. The Commission stated that the ultimate question in that case was whether the acquisition is "necessary and reasonable."[9] The Commission specified that "[t]his turns on numerous factors, including but not limited to consideration of the certificate of need factors and the resource planning factors."[10] The Commission enumerated factors that should be

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[8] *Order Referring Gas Plant for Contested Case Proceedings, and Notice and Order for Hearings,* Docket No. E-015/RP-17-568 at 5 (Sept. 19, 2017).
[9] *Id.*
[10] *Id.* at 5.

considered, including: "alternatives to some or all of the gas plant energy and capacity proposed by the Company, including but not limited to alternatives such as additional wind and solar resources (with updated costs), storage, demand response, and additional energy efficiency."[11] The Commission directed the Administrative Law Judge to identify additional issues that should be considered in reviewing the reasonableness of the proposal. The parties and the ALJ agreed that the renewable resource requirements set forth in Minnesota Statutes sections 216B.2422 and 216B.243, subdivision 3a, should also apply.

These statutory provisions mandate a preference for renewable energy and energy savings. The certificate of need statute prohibits the Commission from approving a new energy facility "unless the applicant can show that demand for electricity cannot be met more cost effectively through energy conservation and load-management measures and unless the applicant has otherwise justified its need."[12] This consideration must include analysis of "possible alternatives for satisfying the energy demand or transmission needs including but not limited to potential for increased efficiency and upgrading of existing energy generation and transmission facilities, load-management programs, and distributed generation[,]" and "any feasible combination of energy conservation improvements, required under section 216B.241, that can (i) replace part or all of the energy to be provided by the proposed facility, and (ii) compete with it economically."[13]

Because Xcel's Petition, like Minnesota Power's proposed affiliate interest agreement for the Nemadji gas plant, is occurring prior to and outside of the integrated resource planning

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[11] *Id.* at 6.
[12] Minn. Stat. § 216B.243, subd. 3.
[13] *Id.* at subd. 3(6), (8).

process, the Commission should apply the resource planning and certificate of need factors to assessing the prudence of Xcel's proposal.

IV. XCEL HAS NOT MET ITS BURDEN OF PROOF THAT THE PROPOSED ACQUISITION IS REASONABLE AND PRUDENT.

A review of the record reveals that Xcel has not demonstrated that the proposed acquisition is reasonable, prudent, and consistent with the public interest. In its Petition, Xcel assesses the value of the proposed acquisition only through the narrow lens of comparing the proposed acquisition to the status quo of maintaining the existing PPAs, and does not compare the potential acquisition to other, cleaner supply- and demand-side alternatives, nor does it review the proposal in the context of other forthcoming resource decisions, as will be considered in its next IRP. Even from this narrow perspective, however, Xcel has not shown that the proposed acquisition is likely in the best interest of ratepayers. The entire economic benefit of the acquisition appears to stem from Xcel's expectation that it can run the plant more efficiently than it is run under the existing PPAs. But there is no reasonable justification for this assumption in the record. Moreover, even taking Xcel's assumptions as true, the acquisition does not become a net economic benefit to customers until 2045 under the most reasonable portfolio Xcel modeled, the High Renewables scenario. Given the rapid pace of technological advancement and the Company's (and Minnesota's) greenhouse gas reduction goals, substantial risk exists that the gas plant will not be the most economic or prudent option for customers 26 years from now, when the PPA with MEC II expires. Because Xcel does not have a capacity need for the gas plant at this time, these considerations weigh in favor of waiting to evaluate how to best replace the PPAs until closer to their expiration.

At a minimum, the Commission should defer consideration of the proposal to Xcel's July 2019 IRP proceeding. Xcel cites as a potential benefit of the acquisition that it could facilitate accelerating retirement of the Company's remaining baseload coal plants. However, Xcel does not commit to these retirements in its Petition, and instead says it will evaluate early retirement in its forthcoming IRP. This puts the cart before the horse. As discussed further below, Xcel does not provide any reason why the proposed MEC acquisition could not be considered in its July IRP. The IRP is the appropriate place to evaluate whether the MEC acquisition represents the best option for assessing replacement of the Company's remaining coal plants, with full consideration of other potential alternatives.

A. <u>The Record Shows that the Acquisition Is Not Justified When Viewed in Isolation From Other Resource Planning Decisions.</u>

1. Overview of the Company's methodology.

In its Petition, Xcel compares the present value revenue requirements of acquiring the MEC plant to the PVRR of maintaining its existing PPAs for the MEC units. The Company also assessed the present value of societal cost of the proposed acquisition, which adds a regulated cost of carbon and externality costs.[14]

Xcel compared these two options under two resource planning scenarios. First, it considered a "2015 IRP scenario" that is based on resource decisions consistent with the preferred plan from the Company's last IRP, filed in 2015, which includes renewable energy additions and fossil retirements that have already been approved by the Commission. [15] That scenario results in 67% of the Company's generation coming from carbon-free resources by

[14] *See* Petition Attachment F at 14, Table 12.
[15] Petition at 22-23.

2030.[16] The second scenario the Company considered is a "High Renewables" scenario that adds 6,000 MW of solar by 2030, resulting in 60% of generation coming from renewables. This scenario also economically dispatches the A.S. King plant in 2028, "significantly reduc[ing] its capacity factor" of that plant as a result of the increased renewable energy on the system.[17]

The table below summarizes the findings from Xcel's analysis:

Table 1: Summary of Xcel's PVRR and PVSC Analyses (2015 IRP scenario vs High Renewables scenario)[18]

	MEC Ownership – 2015 IRP scenario		MEC Ownership – High Renewables Scenario	
	PVSC	PVRR	PVSC	PVRR
Total cost/(savings)	(251)	(142)	(158)	(66)

Xcel also modeled several sensitivities based on these two main scenarios, including sensitivities regarding gas prices, load forecast, market availability, ongoing MEC costs, and cost of carbon.[19]

2. In assessing the potential benefit from the MEC acquisition, the High Renewables Scenario Is the Most Reasonable Base Case.

At the outset, it is important to note one overriding conclusion that can be drawn from these scenarios and sensitivities: the High Renewables scenario, and not the 2015 IRP scenario, provides the most reasonable basis for assessing the potential benefits associated with the MEC acquisition. This is because, as displayed in Table 2, below, under all sensitivities, the High Renewables scenario is significantly less costly than the 2015 IRP scenario. This is irrespective of whether Xcel owns MEC or continues its existing PPAs.

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[16] *Id.* at 23.
[17] *Id.* at 24.
[18] *Id.* at 27, Tables 4 and 5.
[19] *Id.* at 24-26.

Table 2: Comparison of High Renewables Scenario to 2015 IRP Scenario, all sensitivities[20]

	Continuation of PPAs (2015 IRP RE)	Continuation of PPAs (High RE)	Delta
Base PVSC	$55,829	$53,115	($2,714)
Base PVSC + Low Gas	$53,929	$52,182	($1,747)
Base PVSC + High Gas	$59,056	$54,745	($4,311)
Base PVSC + Low Load	$51,666	$49,727	($1,940)
Base PVSC + High Load	$60,237	$56,971	($3,266)
Base PVSC + Mkts Off, No Dump Credit	$55,417	$53,815	($1,602)
Base PVSC + Mkts Off, Dump Credit	$54,894	$52,026	($2,868)
Base PVSC + High MEC Ongoing Costs	$55,829	$53,115	($2,714)
Base PVSC + Low MEC Ongoing Costs	$55,829	$53,115	($2,714)
PVSC - Low Ext Costs All Years	$49,403	$47,684	($1,719)
PVSC - High Ext Costs All Years	$63,356	$58,363	($4,993)
PVSC - Low Ext Costs thru 2024, Low Reg Costs	$47,330	$46,163	($1,167)
PVRR (No CO2)	$45,376	$44,693	($683)

	Owned MEC (2015 IRP RE)	Owned MEC (High RE)	Delta
Base PVSC	$55,578	$52,956	($2,622)
Base PVSC + Low Gas	$53,686	$52,002	($1,684)
Base PVSC + High Gas	$58,799	$54,673	($4,126)
Base PVSC + Low Load	$51,475	$49,652	($1,823)
Base PVSC + High Load	$59,966	$56,750	($3,215)
Base PVSC + Mkts Off, No Dump Credit	$55,237	$53,729	($1,508)
Base PVSC + Mkts Off, Dump Credit	$54,713	$51,939	($2,775)
Base PVSC + High MEC Ongoing Costs	$55,611	$52,989	($2,622)
Base PVSC + Low MEC Ongoing Costs	$55,547	$52,925	($2,622)
PVSC - Low Ext Costs All Years	$49,239	$47,598	($1,640)
PVSC - High Ext Costs All Years	$63,177	$58,239	($4,939)
PVSC - Low Ext Costs thru 2024, Low Reg Costs	$47,153	$46,072	($1,081)
PVRR (No CO2)	$45,233	$44,627	($606)

As this table shows, if Xcel were to continue the PPAs, the High Renewables scenario is between $683 million and $5 billion less expensive than the 2015 IRP scenario. If Xcel were to instead acquire MEC, the High Renewables scenario is between $606 million and $4.9 billion less expensive than the 2015 IRP scenario.

[20] Derived from Petition at 28, Tables 6 & 7.

Because the High Renewables scenario is both so much less expensive than the 2015 IRP scenario, as well as more consistent with Xcel's carbon reduction goals, it should therefore be considered the most reasonable scenario under which to evaluate the proposed acquisition.

Table 1 also makes it apparent that the forecasted PVRR and PVSC savings from the MEC acquisition are much lower under the High Renewables scenario than they are under the 2015 IRP scenario: $66 million in PVRR savings and $158 million in PVSC savings under the High Renewables scenario, versus $142 million in PVRR savings and $251 million in PVSC saving under the 2015 IRP scenario.

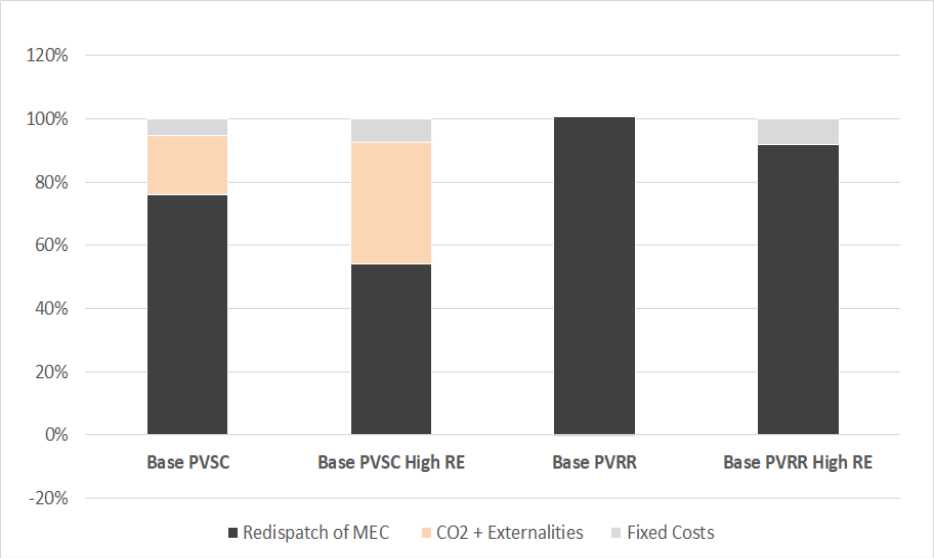
3. The Company's key assumption that MEC will operate more efficiently under Xcel's ownership than under the PPAs is unsupported in the record.

A review of the Company's assessment of the proposed acquisition compared to the status quo of maintaining the current PPAs shows that there is no persuasive evidence that the acquisition is in the public interest. The Company's conclusion that the acquisition will benefit customers is almost entirely grounded in the key, unsubstantiated claim that the Company will operate MEC more efficiently than it is currently operated under the PPAs. However, there is no basis for this claim in the record.

The Company's modeling shows that it expects MEC to generate more energy under its ownership than under the existing PPAs because it will be less costly to operate and, therefore, will be dispatched more often. Figure 1 below shows that the majority of the savings Xcel expects to arise from ownership come from savings from dispatching Mankato more often, displacing other generators, and increasing net energy sales. In the Company's calculation of the present value of revenue requirement savings from owning MEC, under the 2015 IRP case, 100% of the savings are attributable to this assumption that the plant will operate more

efficiently under Xcel's ownership. Ninety-two percent of the savings are attributable to this assumption in the High Renewables case.

Figure 1: Percentage of Savings from Ownership[21]



The Company attributes savings to reductions in variable operations and maintenance ("O&M") and start costs without adequately explaining why it thinks the units will become less costly to operate once Xcel owns them. Figure 2, below, shows the amount by which Xcel predicts variable O&M will be reduced under its ownership. In its analysis, the Company assumes variable O&M costs per MWh will **TRADE SECRET INFORMATION BEGINS** <[redacted]> **TRADE SECRET INFORMATION ENDS** after it assumes ownership of Mankato. This is a **TRADE SECRET INFORMATION BEGINS** <[redacted]> **TRADE SECRET INFORMATION ENDS** for which Xcel fails to offer any reasonable justification.

[21] Derived from Petition at 27, Tables 4 and 5. "Redispatch of MEC" includes VOM, Fuel, Start Costs and Market Cost/Savings.

Figure 2: Company's Variable O&M Assumptions[22] CONTAINS TRADE SECRET INFORMATION

TRADE SECRET INFORMATION BEGINS

[redacted]

TRADE SECRET INFORMATION ENDS

This assumed decrease in variable costs under Xcel's ownership decreases dispatch costs, which in turn drives the Company's modeling to forecast a **TRADE SECRET INFORMATION BEGINS <** [redacted] **> TRADE SECRET INFORMATION ENDS** in the amount of energy generation from MEC,[23] as shown in Figure 3, below.

[22] Xcel Response to SC IR 3-1, **TRADE SECRET** CD of Strategist output files: "SO - _MANKATO BASE", "SO - _MANKATO OWN", "SO - _MANKATO BASE_HRE" and "SO - _MANKATO OWN_HRE"
[23] Petition at 32.

Figure 3: Energy Generation from MEC Under PPAs ("Base") vs Xcel Ownership ("Own")[24] CONTAINS TRADE SECRET INFORMATION

TRADE SECRET INFORMATION BEGINS

[redacted]

TRADE SECRET INFORMATION ENDS

In Xcel's modeling, the additional generation from Mankato then either displaces other generation from the Company's fleet or increases net market sales. The effect of Xcel operating the plant instead of the current owner drives the bulk of the Company's claimed system cost savings associated with the acquisition.[25]

However, Xcel offers no persuasive rationale for why it expects it will operate the units more efficiently than they would otherwise operate under the PPAs. In its Petition, Xcel notes that recent upgrades at MEC have increased the ramp rate, allowing it to be more responsive to higher amounts of renewables on its system:

> The upgrades to MEC I and the newer vintage expansion of MEC II have increased the ramp rate of the facility by approximately 50% which makes it more responsive to system

[24] Xcel Response to SC IR 3-1, **TRADE SECRET** CD of Strategist output files: "SO - MANKATO BASE", "SO - _MANKATO OWN", "SO - _MANKATO BASE_HRE" and "SO - _MANKATO OWN_HRE"
[25] Figure 3, *supra*.

> energy requirements with higher renewables. In other words, we will be able to more efficiently ramp the plant's energy output up or down in response to our system's changing energy needs throughout the day, as renewable resources generate more or less energy due to their variable nature.[26]

But when asked to explain how the plant operations would change based on ownership, the Company could not provide a reasonable justification:

> Owning the plant *may* allow us to dispatch and/or ramp the plant differently depending on its actual operational characteristics relative to the specific dispatch parameters and constraints laid out in the PPA. However, the statement above from page 10 was intended to convey that the recent upgrades made at the plant make it a much more flexible resource that will be more valuable to us in the future regardless of ownership or PPA."[27]

Xcel added: "But, only the proposed ownership option guarantees us access to these resources through 2046 and 2054 whereas the existing PPAs expire in 2026 and 2039 with no guarantee of extension."[28]

This answer explains improvements that have been made to the plant, but not why those benefits will be unavailable to customers under the PPAs, nor does it explain why Xcel would be a more efficient operator than the current owner.

Xcel offers no other explanation for why the unit would operate differently under its ownership. If the unit is not running efficiently now, then the Company should take that issue to the current owner, because customers are being deprived of value they should be receiving under the PPAs.

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[26] Petition at 10-11.
[27] Xcel's response to OAG IR 33, emphasis added. Attached as Exhibit SC-03.
[28] *Id.*

4. Xcel's unsubstantiated assumption that it will run the MEC plant more efficiently is also the basis of its claimed carbon benefits from the acquisition.

According to Xcel's analysis, the MEC acquisition results in substantially greater savings to customers when the environmental cost of carbon emissions is considered. Under the High Renewables scenario, the PVSC shows $158 million in savings compared to maintaining the PPAs, while the forecasted PVRR savings of the acquisition is $66 million.[29]

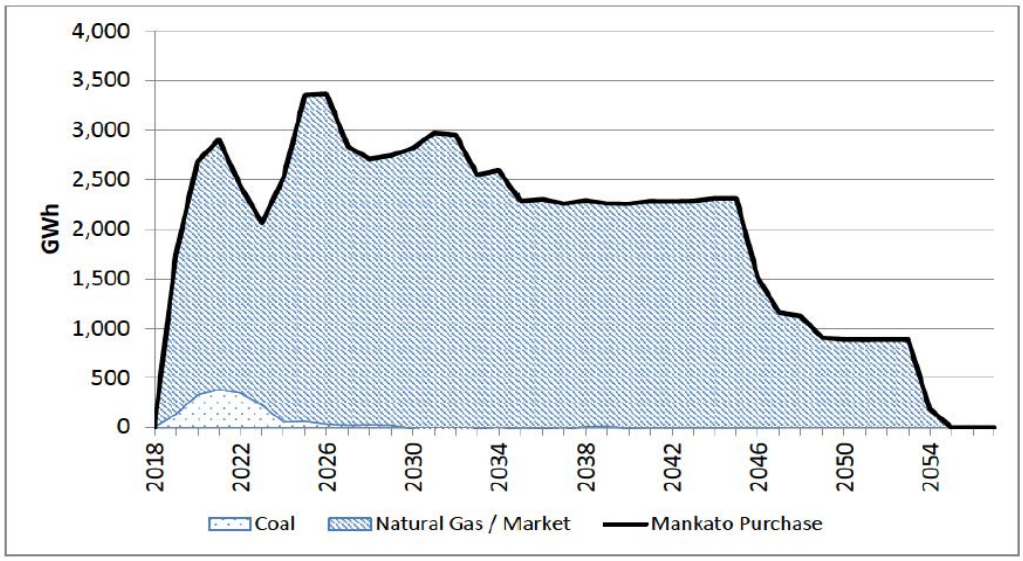
Xcel explains the reason for the higher PVSC under the High Renewables scenario as follows:

> While some coal is displaced in the near-term, the energy from MEC primarily displaces natural gas and market purchases. The higher PVSC savings, noted above, result from lower carbon emissions under Company ownership compared to the existing PPAs. As a combined cycle, MEC is more efficient than combustion turbines or older CCs, which results in reduced emissions relative to the generation that is displaced.[30]

This effect is illustrated in Figure 4 of Xcel's Petition, reproduced below. This Figure shows that under the High Renewables scenario, MEC is forecasted to primarily displace less natural gas and market purchases.

[29] *See* Table 1, *supra*.
[30] Petition at 32.

Figure 4: Energy Displaced by MEC (GWH) Under the High Renewables Scenario, Xcel Ownership[31]



Emissions from the plant itself are **TRADE SECRET INFORMATION BEGINS** <[redacted]> **TRADE SECRET INFORMATION ENDS** under ownership than under the PPAs because Xcel assumes the plant will operate more often, which if true would displace other generation and associated emissions.[32] In other words, as with the economic benefits, the carbon benefits associated with the acquisition result from Xcel's unsubstantiated assumption that it can operate MEC more efficiently.

The PVSC also includes the excess capacity credit from the MEC acquisition. As Xcel states: "In addition, relatively more energy is assumed to be displaced under Company ownership, due to the expected additional capacity of MEC, discussed above, that was not

[31] Petition at 32.
[32] Xcel Response to SC IR 3-1, **TRADE SECRET** CD of Strategist output files: "SO - _MANKATO BASE", "SO - _MANKATO OWN", "SO - _MANKATO BASE_HRE" and "SO - _MANKATO OWN_HRE"

contemplated under the existing PPAs."[33] But Xcel does not provide any explanation for why it would not have the benefit of the capacity improvements under the PPA. The capacity improvements have already occurred at the units, and Xcel does not explain why it is not entitled to that improvement under its PPAs, or if not, why it could not renegotiate the PPAs to obtain that capacity benefit.[34]

While PVSC is generally a critical measure of an asset's likely benefit to customers because it captures a societal cost of carbon, in this particular instance of the MEC acquisition, the carbon benefits (and thus the higher PVSC) are tied to Xcel's unsubstantiated claims regarding its ability to operate the plant more efficiently and to obtain additional capacity that it would not otherwise receive under the PPAs.

5. Even under Xcel's unsubstantiated assumptions, the economic benefits of ownership do not arise until 2045, indicating high risk of stranded costs.

As noted above, Xcel assessed whether the acquisition of the MEC plant would result in a net economic benefit to ratepayers by comparing the present value of revenue requirements of the acquisition to the PVRR of maintaining its existing PPAs under two scenarios, a 2015 IRP scenario and a "High Renewables" scenario.

Under the Company's own modeling, ownership of Mankato does not become economically beneficial to ratepayers until either 2035 or 2045, under the 2015 IRP and High Renewable scenarios, respectively. Given the substantially lower cost of pursuing the High Renewables scenario (see Tables 2 and 3, *supra*), the 2045 date is the more reasonable. Figure 5,

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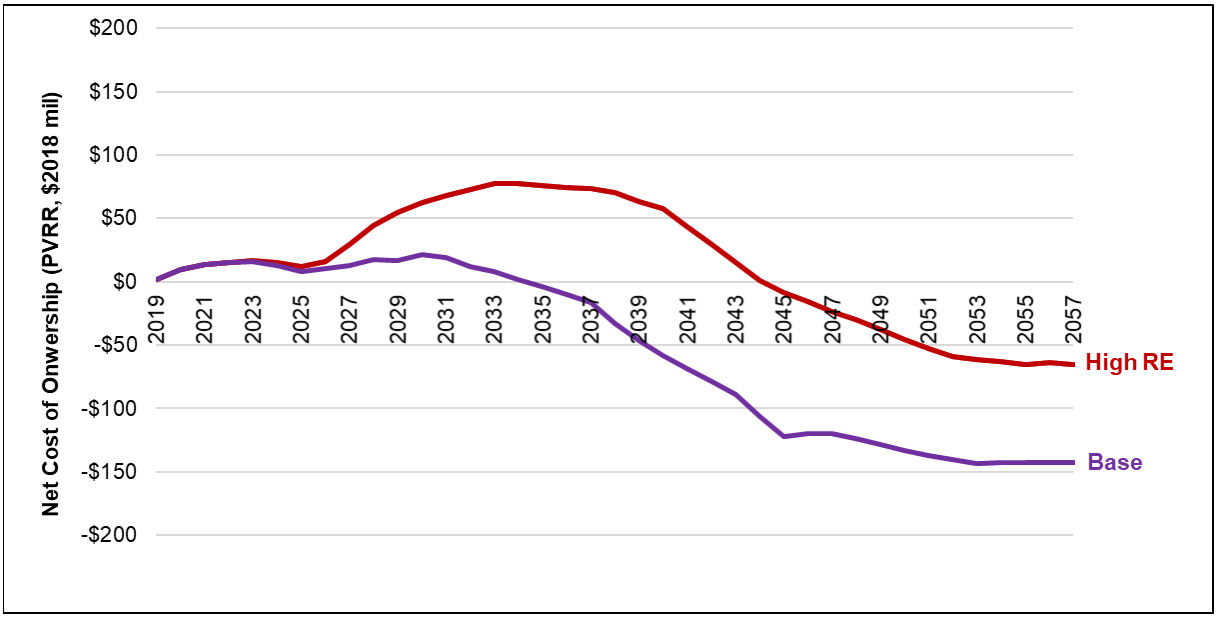
[33] Petition at 32.
[34] Petition at 10-11; Xcel's response to OAG IR 89, attached as Exhibit SC-04 (Xcel acknowledges there are no restrictions that would prevent the Company from expanding, extending, or renegotiating the PPAs).

below, shows the PVRR difference between ownership and the PPA. Values above the x-axis show the net cost of ownership in each year compared to the existing PPAs.

Figure 5: Net Cost/Benefit of Mankato Ownership (Base and High Renewable scenarios, cumulative PVRR $2018)[35]



As Figure 5 shows, under the High Renewables scenario, ownership is more expensive for customers until 2045. Note that Xcel assumes the PPAs lapse in 2026 for MEC I and at the end of 2039 for MEC II; therefore, after those dates, the Company is comparing ownership to resources selected by the Strategist model using resource costs projected for 2026 and 2039.

Table 3, below, displays this same information in a different format. It shows that were Xcel to own MEC, in 2030 the acquisition will have resulted in a net cost to customers of $62 million; by 2040, the acquisition is still a net cost of $58 million to customers. Customers do not "break even" on the acquisition until 2045.

[35] Derived from Xcel's response to SC IR 2-003, Attachment A.

Table 3: Present Value of Revenue Requirements by Year for Mankato Acquisition vs PPAs (High Renewables Scenario)[36]

PVRR $2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Annual Cost/(Savings)	$1.7	$7.9	$3.7	$2.1	$1.6	($1.9)	($3.1)	$4.1	$13.1	$15.2	$9.9	$7.9
Cumulative Cost/(Savings)	$1.7	$9.7	$13.4	$15.4	$17 0	$15.1	$12.0	$16.2	$29.3	$44.5	$54.5	$62.4
	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Annual Cost/(Savings)	$5.5	$5.2	$4.7	($0.5)	($1.1)	($1.7)	($1.0)	($2.9)	($7.3)	($5.3)	($14.7)	($14.2)
Cumulative Cost/(Savings)	$67.9	$73.1	$77.8	$77.3	$76.2	$74.5	$73.5	$70.6	$63.3	$58.0	$43.3	$29.1
	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054
Annual Cost/(Savings)	($14.0)	($14.2)	($9.1)	($7.2)	($8.5)	($6.0)	($8.2)	($7.8)	($7.2)	($6.0)	($2.3)	($1.5)
Cumulative Cost/(Savings)	$15.1	$0.9	($8.2)	($15.3)	($23.8)	($29.8)	($38.0)	($45.8)	($53.0)	($59.0)	($61.3)	($62.8)

Because the economic benefits from the acquisition do not arise for more than 20 years, the acquisition exposes customers to significant risk that the benefits may never appear. The Company claims that "[a]bsent ownership, customers would potentially pay a higher price for replacement energy and capacity upon the expiration of the PPA."[37] But it is just as possible, if not more so, that they could pay a lower price. It may well be the case that, by 2026 or 2039, other resources and technologies would offer lower cost alternatives to the gas plant. In its modeling, in the years after the PPAs expire, Xcel is comparing the value of MEC to the value of generic replacement resources based on a set of assumptions that have been made today. It is extremely difficult to accurately guess today, though, what alternatives might be economic or available in 2039. It is quite possible that, if the Company were to maintain the PPAs and instead conduct an analysis of its alternative resource options in, say, 2035, prior to the expiration of the MEC II PPA, the model might find that a completely different set of resources would more economically meet customers' needs. The Company also could conduct an all-resource RFP closer to the time of capacity need.

Acquiring the MEC plant now means making a decision in 2019 about what resources will best meet customers' needs in 2026 and 2039, when the PPAs expire. Customers are

[36] Xcel's response to SC IR 2-003, Attachment A
[37] Petition at 35.

currently locked into MEC I for 7 more years (until 2026) and MEC II for 20 years (until 2039); the proposed acquisition would lock customers in to MEC I for an additional 20 years (until 2046) and MEC II for an additional 15 years (until 2054). It would be more prudent to re-assess the economics of alternative replacement resources closer to the expiration of the PPAs, so that consumers can benefit from options that may present themselves in the next 20 years.

An example from another utility's recent resource planning decision illustrates this. Arizona Public Service Company ("APS") is phasing out most of its coal-fired power plants, and recently announced plans to acquire 850 MW of battery storage.[38] As part of this plan to invest in battery storage, APS is entering in a shorter-term, seven-year contract for a 460 MW gas plant. According to an article explaining APS's decision, "[r]ather than purchasing a gas plant, or signing a more traditional 20-year contract, the short contract will allow APS to determine the most prudent way to meet demand after that contract expires. That might turn out to be more batteries and solar, not gas."[39] As with APS, shorter commitments to fossil fuels, not longer ones, increase Xcel's flexibility to transition to a cleaner generation portfolio.

It is worth noting that there is no evidence in the record that Xcel will not have the option to acquire the MEC units when the PPAs expire, or to extend the PPAs prior to their lapsing. Calpine, for instance, looked into selling this gas plant several times before it sold it to Southern

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[38] Randazzo, R., *Historic shift: APS says batteries are cheapest energy option, plans big investment*, AZ Central (Feb. 21, 2019). Retrieved Mar. 05, 2019 from: https://www.azcentral.com/story/money/business/energy/2019/02/21/aps-battery-cheapest-energy-option-arizona-power-grid/2911299002/, attached as Exhibit SC-06.

[39] *Id.*

Power.[40] There is no reason to believe the gas plant might not become available for sale again in the future, closer to the expiration of the PPAs.

In sum, the acquisition of MEC does not, as Xcel claims, "create flexibility"; instead, it is locking in a major commitment to fossil generation through the mid-2050s.

6. The proposed acquisition is inconsistent with Xcel's and Minnesota's carbon reduction goals, adding to the risk of stranded costs.

Xcel's proposal to acquire MEC is also inconsistent with the Company's own carbon reduction goals, further underscoring the risk that the gas plant will become a stranded asset.

Xcel's cost-benefit analysis of the proposed acquisition is based on the premise that the Company will use "MEC I through 2046 and MEC II through 2054."[41] Xcel's Strategist modeling on the MEC purchase runs out to 2057.[42] As the Commission rightly noted in its Notice of Comment Period, this raises the question of whether the proposed acquisition is compatible with Xcel's carbon reduction goals, and whether the proposed investment is likely to become stranded.

Xcel has committed to achieving 85% of its generation from carbon free sources by 2030.[43] More recently, the Company announced a corporation-wide goal of generating 100% of its energy from carbon-free sources by 2050. However, Xcel acknowledges that it did not conduct a cost-benefit analysis of the proposed acquisition under scenarios that would achieve either of these carbon goals.[44] Xcel states in its Petition that it "believes this proposal is

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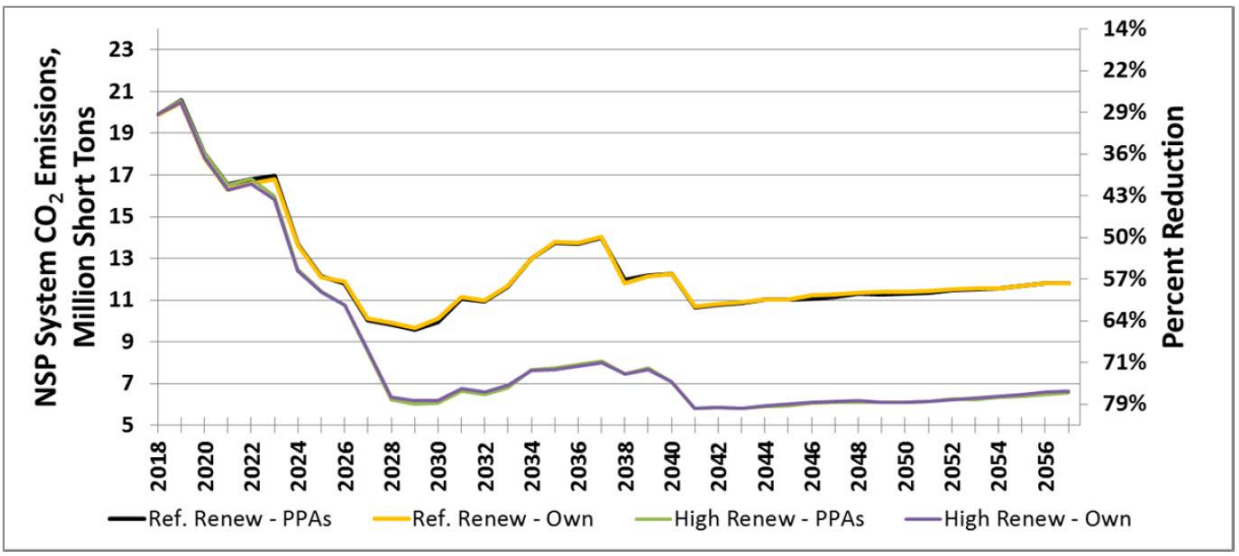
[40] Xcel's response to OAG IR 6, attached as Exhibit SC-07. (Calpine considered selling Mankato on several occasions including 2011, 2014, 2015 and 2016).
[41] Petition at 21.
[42] *Id.* at 20
[43] *Id.* at 23.
[44] Xcel's response to OAG IR 18, attached as Exhibit SC-08. (Xcel did not run any Strategist modeling in which the model was required to achieve 85% by 2030 or 100% by 2050).

consistent with our goals of keeping customer bills low and achieving 85% carbon-free energy by 2030."[45] However, even the Company's High Renewables scenario does not achieve this goal, as shown in the graph produced by Xcel, below.

Figure 6: Xcel's Projected CO2 Emissions, Own vs PPA (High Renewables vs 2015 IRP)[46]



When asked why it did not model any scenarios that would achieve Xcel's 2050 carbon-free goal, Xcel responded: "As we publicly stated with our announcement of the 100% carbon-free goal by 2050, achieving the long-term vision of zero-carbon electricity requires technologies that are not cost effective or commercially available today."[47] But this does not explain why it is prudent for Xcel to commit to resources today that are not compatible with its stated goal, especially when there is no demonstrated reason to commit today to a decision that need not be made until 2026 and 2039, when the PPAs expire. In fact, this answer makes the point that waiting until closer to the expiration of the PPAs to assess the best replacement option would be

[45] Petition at 1.
[46] Xcel's response to SC IR 2-006, attached as Exhibit SC-09
[47] Xcel's response to SC IR 2-005, attached as Exhibit SC-10.

the more prudent decision, given that Xcel is expecting that technological advances will be important to achieving its carbon-free goal.

Xcel further reasoned that: "For purposes of resource planning modeling, the standard book life for a combustion turbine is 35 years, thus the new turbine would have an expected operational life through 2054. We expect that technological advances may allow use to obtain value from MEC through its expect book life and beyond 2050. The Company believes it can affordably and reliable achieve 85% carbon reduction by 2030 including operation of MEC 1 and MEC II."[48] It is unclear what "technological advances," other than carbon storage, would allow Xcel to obtain value from a fossil-generating power plant in a zero carbon future. Banking on advancements in carbon storage for gas plants, however, is not a prudent strategy.

By failing to model compliance with its own carbon targets, the Company is ignoring known or likely constraints on its system. A reasonable analysis should account for known and likely compliance constraints in order to quantify ratepayers' potential risk exposure.

Both the Office of Attorney General and Sierra Club requested that Xcel re-calculate its cost-benefit analysis of the proposed acquisition using earlier retirement dates for the MEC plant. When Xcel assumed the gas plant would retire in 2050, under the High Renewables scenario, the acquisition results in only $23M in savings to customers on PVRR basis, and $138M on PVSC basis.[49] When Xcel assumed the gas plant would retire in 2040, ownership results in additional cost to customers of $116 million, and the PVSC savings are reduced to only $13 million. The results of this analysis are reproduced below as Table 4. As discussed above, the High

[48] Xcel's response to OAG IR 17, attached as Exhibit SC-11.
[49] *Id.*

Renewables scenario is a more proper "base case" than the 2015 IRP scenario because the High Renewables scenario is lower cost in almost every sensitivity run by the Company.

Table 4: PVSC and PVRR costs/savings of Mankato Ownership vs PPAs, Assuming Retirement in 2040[50]

2015 IRP Renewables	PVSC	*Deltas*
Reference Case	55,829	
Mankato Owned	55,578	(251)
Mankato Owned 2040	55,721	(108)
High Renewables		
Reference Case	53,115	
Mankato Owned	52,956	(158)
Mankato Owned 2040	53,102	(13)
2015 IRP Renewables	**PVRR**	
Reference Case	45,376	
Mankato Owned	45,233	(142)
Mankato Owned 2040	45,371	(5)
High Renewables		
Reference Case	44,693	
Mankato Owned	44,627	(66)
Mankato Owned 2040	44,809	116

When Xcel produced this analysis of retiring MEC in 2040, the Company included the following caveat: "As noted in the response above, we expect that technological advances may allow use to obtain value from MEC through its expected book life and beyond 2050. Retiring Mankato in 2040 reduces the expected 35 year life of MEC II by 14 years, which we do not believe is a reasonable assumption."[51] The Company thus appears to acknowledge that early retirement would render the investment uneconomic for customers.

7. Xcel's assertion that the acquisition poses no risk of stranded costs is unreasonable.

Xcel did not conduct any assessment of the risks that the MEC plant acquisition could become stranded before it benefits customers. When asked to provide any analysis it had done to

[50] Xcel's response to SC IR 2-2, Attachment A., attached as Exhibit SC-12.
[51] Xcel's response to SC IR 2-2, attached as Exhibit SC-13.

assess risks related to stranded asset potential for the purchase, the Company responded that "[n]o analysis directed at that possibility was performed. We anticipate the MEC facility will be a viable resource serving our customer load throughout its useful life."[52] Similarly, in response to an information request asking whether the Company's Strategist model included any quantified risk related to the possibility that MEC I or II could become stranded assets, Xcel responded in the negative. Xcel added:

> The Company is confident that the Mankato resource will serve as an important flexible resource that provides firm capacity for the full useful life of the asset. It is impossible to predict when or if new technologies will come along that can perfectly mimic all of the characteristics of a combined cycle in a more economic and less carbon intensive way. However, based on current technology and expectations, there is no substitute that can provide all of the characteristics of a combined cycle and therefore, we believe that the risk of MEC I and MEC II becoming stranded is low."[53]

This statement captures the problem with Xcel's assessment: commitment to a resource in 2019 that is not needed until 2039 prevents the Company from taking into account technological advancements that may occur in the interim. Even if it were true that there is no other resource or combination of resources that could provide the same benefits as the MEC plant *today*, this does not mean the risk of the MEC investment becoming stranded is low. If there is any prediction one can make with certainty from market trends, it is that technology will continue to advance, and that lower cost, cleaner alternatives than are available today will be on the market 20 years from now.

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[52] Xcel's response to CUB IR 15, attached as Exhibit SC-14
[53] Xcel's response to OAG IR 11, attached as Exhibit SC-15

B. <u>The Uncertain and Delayed Benefits of the Acquisition, Together With the Unreasonable Risk of Stranded Costs, Weigh In Favor Of Deferring the Proposed Acquisition to Xcel's Forthcoming IRP.</u>

In this Petition, Xcel asks the Commission to approve the addition of $650 million to its rate base. Given the uncertain benefits of the acquisition discussed above, the record does not support approval of the Petition without some additional benefit to customers, and so warrants deferral into the Company's forthcoming IRP.

Throughout the Petition, Xcel repeatedly suggests that allowing the Company to proceed with the MEC acquisition could help facilitate accelerated retirement of its remaining coal plants. However, the Company does not model those potential early retirements in its Petition, nor does it commit to them in this proceeding. Because those potential benefits have not been adequately secured in this Petition, the Commission should defer a decision and assess the reasonableness of the Company's proposed significant new investment in fossil generation within the context of its more comprehensive resource planning process.

1. Under the High Renewables Scenario, Xcel Does Not Need Capacity Until 2034.

As Xcel acknowledges in its Petition, the High Renewables scenario adds over 6,000 MWs of solar by 2030, "which provides sufficient capacity to meet system needs through 2034."[54] Xcel states the High Renewables scenario "result[s] in considerable levels of surplus portfolio capacity length in the mid-2020s to early 2030s."[55] As noted above, the High Renewables scenario results in substantial savings to customers under virtually every sensitivity

[54] Petition at 30.
[55] *Id.* at 30.

modeled, and so represents the reasonable base case under which the proposed acquisition should be evaluated.

Given this lack of near-term capacity need, there should be no urgency in making a major resource commitment of the magnitude of this proposal unless the economics of the acquisition are very favorable or other substantial benefits are secured. As discussed above, ownership of the plant is not clearly more favorable than maintaining the PPAs. Moreover, as discussed below, Xcel does not commit to other substantial benefits, such as retirement of carbon-intensive coal generation, in this proceeding.

2. Xcel states that a potential benefit of the acquisition is accelerated retirement of its remaining coal plants, but seeks to defer consideration of that benefit to its IRP.

Xcel recognizes in its Petition that it has no capacity need for its system until 2034, but states that the gas plant acquisition "provides significant benefits as we transition our fleet in the 2030s…."[56] The Company states: "If coal retirements are accelerated to the late 2020s or if solar accreditation is reduced, additional capacity benefits of the transfer of ownership may be realized."[57] Xcel similarly asserts that "the capacity length in the High Renewables scenario can either be used to help mitigate the risk of premature retirement of baseload facilities or allow for an accelerated transition of the coal fleet which could yield additional customer savings."[58]

However, the Company does not actually commit to securing these potential additional customer savings in its Petition. When asked whether its Strategist modeling included any early retirements of existing plants, Xcel responded that its modeling includes only those retirements

[56] *Id.* at 30.
[57] *Id.*
[58] *Id.* at 31.

that were approved in its last IRP, *i.e.*, Sherco units 1 and 2.[59] Xcel further confirmed that it had not completed any PVSC or PVRR assessment of the proposed MEC acquisition that included accelerated coal plant retirements.[60] As Xcel explained in a response to an information request:

> The High Renewables Scenario results in 60% of generation coming from renewable sources by 2030 and a reduction in carbon of approximately 80% from 2005 level by 2030. *While the preferred plan and specific decision related to early retirement of coal will be made in the IRP*, the High Renewables Scenario shows the impact of the proposed transfer of ownership under a high-renewable and low-carbon future consistent with our 85% carbon-free goal."[61]

In essence, Xcel is asking the Commission to let it develop a significant capacity surplus through the MEC acquisition that carries an additional cost and risk to customers, at an additional $650 million in rate base, without first making additional retirement commitments.

3. The Proposed Acquisition Circumvents the IRP Process, and Should Be Deferred to the Company's 2019 IRP.

As Xcel states, its July 2019 IRP will examine whether it is prudent and in the public interest to accelerate retirement of its remaining baseload plants, including A.S. King and Sherco unit 3. The Commission dictated in its January 11, 2017 Order in Xcel's last IRP proceeding that:

> 14. In its next resource plan filing, Xcel shall: a. describe its plans and possible scenarios for cost-effective and orderly retirement of its aging baseload fleet, including Sherco, King, Monticello, and Prairie Island. b. evaluate combinations of supply-side (distributed and centralized), demand-side, and transmission solutions that could in the aggregate meet post-retirement energy and capacity needs as well as contribute to grid support.[62]

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[59] Xcel's response to OAG IR 10, attached as Exhibit SC-16.
[60] Xcel's response to SC IR 2-004, attached as Exhibit SC-17.
[61] Xcel's response to OAG IR 17 (emphasis added)., attached as Exhibit SC-18.
[62] Order Approving Plan with Modifications and Establishing Requirements for Future Resource Plan Filings, *In the Matter of Xcel Energy's 2016-2030 Integrated Resource Plan*, Docket No. E-002/RP-15-21 (January 11, 2017).

In stakeholder meetings that have preceded the July 2019 IRP filing, the Company has indicated that it will model resource scenarios that include retiring A.S. King in 2028 and Sherco unit 3 in 2030.[63]

Granting Xcel's Petition to acquire the MEC plant would circumvent and subvert the IRP process by approving a purported replacement for Xcel's remaining coal plants before the Company has been bound to those retirements, and without first evaluating whether a combination of other supply-side, demand-side, and transmission solutions could more cost effectively and more cleanly meet any post-retirement energy and capacity needs.

As discussed above, in its Petition, Xcel limits its analysis to a comparison between two options: 1) maintaining its existing PPAs, and 2) ownership of the MEC units.[64] When asked whether it had considered alternatives to the MEC plant acquisition in its Petition that would be more consistent with the Company's carbon goals, Xcel responded that:

> In the upcoming and subsequent future Integrated Resource Plan filings, the Company will propose plans that are specifically designed to meet its emission goals using the most cost effective resources available at that time. The scenarios submitted in this docket are not designed to be comprehensive system plans for the planning/modeling period; rather they are to demonstrate the cost-effectiveness of the Mankato asset purchase vs. a continuation of the PPAs.[65]

But this gets the process backwards. Approval of the Company's Petition will preempt consideration of other alternatives for replacing any energy and capacity need associated with early retirement of King and Sherco 3. It is possible that a combination of renewable energy,

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[63] *See* Staff Briefing Papers for December 6, 2018 Commission Meeting regarding Xcel's request to delay its next resource plan, Docket No. E002/RP-15-21 (filed November 28, 2018) at 10-11.

[64] *See* Xcel's response to OAG IR 12 , attached as Exhibit SC-19. (Q: "has the Company considered any other alternative resource to compare the MEC Xcel ownership scenario against?" A: "The analysis conducted by the Company compares systems costs under the existing PPAs to the costs under the proposed acquisition of MEC.").

[65] Xcel's response to SC IR 2-006, attached as Exhibit SC-20

demand-side resources, and transmission solutions could more cost effectively replace those resources. By committing ratepayers to MEC through 2046 and 2054, other resource alternatives are foreclosed.

4. The Record Offers No Reason Why the Petition Cannot Be Deferred to Xcel's IRP.

Xcel has not demonstrated that it must obtain approval of its Petition before its IRP filing in July of this year. In fact, the record indicates that Xcel's contract with Southern Power Company is flexible with regards to a closing date. In response to an information request, Xcel confirmed that no closing date has been scheduled, and that the closing depends on the date of regulatory approvals, with June 1st representing the earliest possible closing date.[66] In another response, Xcel indicates that hypothetical closing dates could include June, August, and September of 2019.[67] Thus, nothing in the record indicates that the Petition cannot be deferred until the IRP.

V. RECOMMENDATIONS

For the foregoing reasons, Xcel has not met its burden of proof that its proposed acquisition of the MEC gas plant is in the public interest. Even under Xcel's limited comparison of its proposed acquisition to continuation of the existing PPAs, the record lacks adequate support for concluding that the acquisition will result in savings to ratepayers. Xcel's key assumption on which it concludes that the proposed acquisition will benefit customers – that it can operate the gas plant more efficiently than its current owner – appears unfounded. Moreover, even taking Xcel's assumption as true, the acquisition does not result in economic benefits to customers until 2045. Xcel has also not demonstrated that the acquisition is consistent with its

[66] Xcel's response to CUB IR 12 , attached as Exhibit SC-2.1
[67] Xcel's response to CUB IR 13, attached as Exhibit SC-22.

carbon reduction goals, or Minnesota's greenhouse gas reduction goals. Together, these factors suggest that there is a high risk that the gas plant acquisition will become stranded before it ever brings economic benefits to customers. Finally, Xcel's forthcoming IRP is a more appropriate venue for assessing whether the MEC acquisition is in the public interest. Through that more comprehensive resource planning process, stakeholders can better assess whether the proposed acquisition is the least cost, most reasonable replacement option for the Company's remaining baseload coal plants.

Given these concerns, Sierra Club respectfully requests that the Commission reject Xcel's petition to add MEC to its rate base. If necessary, the Commission could invite Xcel to further develop a record in its 2019 IRP that MEC is in the public interest.

If the Commission instead decides to approve the Petition, Sierra Club requests in the alternative that the Commission condition its approval on:

1) Xcel's enforceable commitment to early retirement of the King and Sherco 3 coal plants as part of its preferred plan in its IRP; and

2) A requirement that Xcel conduct a review of the economics of the MEC plant on a forward-looking basis in every subsequent IRP; if the Company's assessment shows that the plant is no longer expected to provide a net benefit to customers, then Xcel shall file an abandonment proceeding.

VI. CONCLUSION

For the foregoing reasons, Sierra Club respectfully requests that Xcel's Petition be DENIED.

Dated: March 5, 2018

Respectfully submitted,

/s/ S. Laurie Williams
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EXHIBIT SC-01

☐ **Not Public Document – Not For Public Disclosure**
☐ **Public Document – Not Public Data Has Been Excised**
☒ **Public Document**

Xcel Energy | Information Request No. 24

Docket No.: IP6949,E002/PA-18-702
Response To: Office of Attorney General
Requestor: Ryan P. Barlow
Date Received: January 11, 2019

Question:
For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Petition.

Please provide the following information:

- Identify the date on which Xcel became aware that Southern Company was considering selling MEC;
- Identify the date on which Xcel entered negotiations with Southern Company to purchase MEC;
- Identify the date on which Xcel submitted a bid to purchase MEC from Southern Company;
- Identify the date on which Southern Company responded to any bid from Xcel for MEC;
- Identify the date on which there was an agreement in principle for Xcel to purchase MEC from Southern Company.

Response:

- Identify the date on which Xcel became aware that Southern Company was considering selling MEC:
  - August 23, 2018
- Identify the date on which Xcel entered negotiations with Southern Company to purchase MEC:
  - August 31, 2018
- Identify the date on which Xcel submitted a bid to purchase MEC from Southern Company:
  - September 7, 2018

- Identify the date on which Southern Company responded to any bid from Xcel for MEC:
    - Several phone discussions occurred in the month of September, 2018.
- Identify the date on which there was an agreement in principle for Xcel to purchase MEC from Southern Company:
    - October 2, 2018, non-binding letter of intent entered between Southern Power and Xcel Energy.

Preparer:	Jerry Dittman
Title:	Manager, Business Development
Department:	Corporate Development
Telephone:	612-215-4568
Date:	January 24, 2019

EXHIBIT SC-02

☐ **Not Public Document – Not For Public Disclosure**
☐ **Public Document – Not Public Data Has Been Excised**
☒ **Public Document**

Xcel Energy Information Request No. 11

Docket No.: IP6949,E002/PA-18-702
Response To: Citizens Utility Board of Minnesota
Requestor: Joseph Pereira
Date Received: January 23, 2019

Question:
1. Does Xcel Energy agree that stakeholders were not informed of the potential purchase of the Mankato Energy Center I and II within the Integrated Resource Plan Workshop process? If the answer is anything other than yes, please provide an explanation as such. Further, please provide all correspondence, or other materials that informed stakeholders of this transaction.

Response:
We discussed the MEC plans briefly at the December 14 workshop as well as with stakeholders in individual meetings; however, no materials were prepared for these meetings. The relevant IRP workshops were October 22, October 23, and December 14.

We found out that Southern was planning to sell MEC in late August and entered a non-binding letter of intent in early October. However, due to a confidentiality agreement and the impact the sale would have on plant employees, we were unable to publically discuss any plans until November 5, 2018 when we signed a Membership Interest Purchase Agreement (MIPA).

Preparer: Bria Shea
Title: Director, Regulatory and Strategic Analysis
Department: Regulatory Affairs
Telephone: 612-330-6064
Date: February 4, 2019

EXHIBIT SC-03

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Xcel Energy | Information Request No. 33

Docket No.: IP6949,E002/PA-18-702
Response To: Office of Attorney General
Requestor: Ryan P. Barlow
Date Received: January 14, 2019

Question:
Re: Petition, Page 10

Petition states: "In other words, we will be able to more efficiently ramp the plant's energy output up or down in response to our system's changing energy needs throughout the day, as renewable resources generate more or less energy due to their variable nature."

Explain the extent to which the plant may be ramped differently depending on who owns the plant.

Response:
Owning the plant may allow us to dispatch and/or ramp the plant differently depending on its actual operational characteristics relative to the specific dispatch parameters and constraints laid out in the PPA. However, the statement above from page 10 was intended to convey that the recent upgrades made at the plant make it a much more flexible resource that will be more valuable to us in the future regardless of ownership or PPA. But, only the proposed ownership option guarantees us access to these resources through 2046 and 2054 whereas the existing PPAs expire in 2026 and 2039 with no guarantee of extension.

Preparer: P.J. Martin
Title: Director, Resource Planning
Department: Resource Planning
Telephone: 612-321-3065
Date: January 25, 2019

EXHIBIT SC-04

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Xcel Energy | Information Request No. 89

Docket No.: IP6949,E002/PA-18-702
Response To: Office of Attorney General
Requestor: Ryan P. Barlow
Date Received: January 14, 2019

Question:
Re: Attachment F, Tables 15 and 16 (Errata filing on December 18, 2018)

MEC II Firm Capacity is listed as 322, provide the current Firm Capacity for MEC I. Provide all information in the company's possession regarding restrictions on expanding (the Capacity), extending, renewing, or renegotiating the MEC I PPA or the MEC II PPA.

Response:
The current firm capacity for MEC I is 290 MW.

The Company is not currently aware of any restrictions on expanding, extending, renewing or renegotiating the MEC I or II PPAs other than the need to obtain approval from our regulatory commissions in order to make any material changes to the existing facility/PPAs as discussed above.

Preparer: P.J. Martin
Title: Director, Resource Planning
Department: Resource Planning
Telephone: 612-321-3065
Date: January 25, 2019

EXHIBIT SC-05

- Exhibit Omitted -

EXHIBIT SC-06

Historic shift: APS says batteries are cheapest energy option, plans big investment

Ryan Randazzo, Arizona Republic Published 4:00 a.m. MT Feb. 21, 2019

APS is planning several batteries on the power grid in Arizona

Arizona Public Service Co. is testing batteries in two facilities in the West Valley. They are designed to mitigate the fluctuations on the grid from multiple solar installations. *(Photo: Ryan Randazzo/The Republic)*

The energy market in the Southwest has hit a turning point, with battery prices falling so low that the technology is now the least expensive way to provide customers electricity, according to officials from Arizona Public Service Co.

To take advantage of the historic shift, the state's biggest electric company will spend hundreds of millions of dollars to add large, building-size batterie to the power grid across Arizona.

APS will use the batteries to soak up surplus energy on the grid early in the day when solar power plants across the region are pumping out more electricity than the homes and businesses require.

The batteries will then discharge that power in the evening, when the sun sets, solar panels power down for the night, and customers turn on their light and need the energy.

The 850 megawatts of batteries planned by APS will make better use of the solar already on the grid. They will allow for more people to add solar pane to their roofs and utilities to build more solar power plants without creating problems on the grid, officials said.

"Eight-hundred fifty megawatts shows you how incredibly transformational what we've seen happening on the grid is and how quickly that has been evolving," APS President Jeff Guldner said.

"The holy grail in the industry right now is trying to figure out how we capture solar energy during the day when there is tons on the system and then us it later when the sun goes down," he said.

The amount of batteries APS plans to add by 2025 is more than the 338 megawatts of batteries the entire U.S. utility industry added last year, based o estimates from the Edison Electric Institute.

APS does not offer cost estimates for the entire project because of proprietary information from its construction partners and because not all the work h

been put out to bid.

But in general, 100 megawatts of battery capacity with four hour of storage runs about $120 million, APS officials said.

That would put the total cost of the projects at more than $1 billion. APS will own some of the projects and purchase power from others.

A greener power grid

The batteries will displace traditional power plants, particularly natural-gas-fired generators, and increase the amount of renewable energy APS uses.

APS today gets about 14 percent of its power supply from renewable sources like solar and wind. That's well ahead of an incremental state rule that requires the utility to get 9 percent from those sources today and 15 percent by 2025.

The batteries will increase the number of renewables in APS' power supply by another 3 to 4 percent, officials said.

Guldner cited the many days during the year — 81 in 2018 — that APS is actually paid to take surplus solar power from California because it is more economical for that state's utilities to keep its power plants running than to shut them down midday and then restart them when demand picks up.

When APS accepts that power, it often curtails its own solar power plants because the energy isn't needed at those times. That's especially true in the spring and fall when the sun shines bright but few people are running air conditioners or electric heaters.

With a place to store that surplus midday energy, more of the power can be used to serve APS customers with solar after dark, he said.

Multiple phases planned

APS already has two batteries on its power grid (/story/money/business/energy/2017/04/20/power-grid-utilities-big-batteries-metro-phoenix-solar-srp-aps/100349564/), and plans for a larger project to be online by 2021. (/story/money/business/energy/2018/02/12/aps-first-solar-plan-large-west-valley-solar-power-plant-giant-battery/329941002/)

Batteries can be used to provide various amounts of power. For example, a 50-megawatt battery with four hours of storage can provide 50 megawatts power for four hours, or 25 megawatts of power for eight hours.

All of the batteries APS plans to add could supply their full capacity of power for three to four hours.

One megawatt is approximately enough energy to power 250 homes. The 850 megawatts of the batteries APS plans will, therefore, be enough to supp about 212,500 homes for three to four hours.

APS will add 200 megawatts of batteries adjacent to some of the solar power plants it owns around the state in 2020-21. Some of that work will be don by Invenergy of Chicago, and some is yet to go out to bid.

APS also will add two stand-alone batteries with a total 150 megawatts of capacity built by The AES Corp. of Virginia and Invenergy.

Then APS will bid out for another 500 megawatts of battery capacity to be built between 2021 and 2025.

At least some of that capacity will be built along with another 100-megawatt solar power plant. A solar plant of that size could power 25,000 homes at once while the sun is shining on it.

Coal going away, gas part of the plan

Like many other utilities, APS is phasing out most of its power supply that comes from coal-fired power plants.

The company is one of the participants in the Navajo Generating Station outside of Page that is scheduled to close this year (/story/money/business/energy/2018/09/21/navajo-generating-station-deal-falling-apart-means-plant-mine-closure/1376588002/), and APS also has plans to either close or convert its Cholla Power Plant in Joseph City to gas (/story/money/business/2014/10/13/plan-emerges-fourth-unit-cholla-power-plant/17196191/).

Coal plants are considered "baseload" power plants because they run 24 hours a day, most of the year.

Solar, on the other hand, only generates power during daylight hours. As utilities rely more on solar and less on coal, they increasingly have used natu gas to ensure they generate enough power at sunset when customers require continued service.

Gas plants are well-suited for this purpose because they can ramp up and down to follow customer demand. Coal and nuclear plants are inefficient an expensive to turn off and on, and solar without batteries has little flexibility because it relies on the sun.

"We need a glide path out of coal," said Daniel Froetscher, APS executive vice president of operations.

As part of its plan to invest big in battery technology, APS will continue to rely on gas, but to the least extent possible, officials said.

Rather than buy or build a new gas plant, the company is contracting for 460 megawatts of natural gas for seven years from a plant owned by Calpine south of Bullhead City.

Rather than purchasing a gas plant, or signing a more traditional 20-year contract, the short contract will allow APS to determine the most prudent way meet demand after that contract expires. That might turn out to be more batteries and solar, not gas, he said.

"We believe now that utility-scale battery storage, from a technology standpoint, is sufficiently viable to begin to displace, if you will, what has been virtually exclusively natural gas as that flexible, ramping, backstop resource," Froetscher said.

Batteries give utilities flexibility in how they meet demand from customers and can reduce how much they rely on natural gas plants.

"We believe now we are at the right stage as an industry and from a technology standpoint to begin to go down this path," he said.

Reach the reporter at ryan.randazzo@arizonarepublic.com (mailto:ryan.randazzo@arizonarepublic.com) and follow him on Twitter: @UtilityReporter.

EXHIBIT SC-07

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Xcel Energy | Information Request No. 6

Docket No.: IP6949,E002/PA-18-702
Response To: Office of Attorney General
Requestor: Ryan P. Barlow
Date Received: January 11, 2019

Question:
For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Initial Petition page 13.
Xcel states, "In September of 2016, Calpine announced that it was selling MEC, including its rights and obligations under the corresponding PPAs with Xcel Energy, to Southern Company's subsidiary Southern Power." Please specifically answer the following questions:

1. Provide the date on which Xcel became aware that Calpine was considering selling MEC.

2. Provide the date on which it became public knowledge that Calpine was considering selling MEC.

3. Provide all information Xcel possesses about the process that was used to identify and communicate with potential buyers.

4. Did Xcel discuss, in any way, the sale of MEC with Calpine before, during, or after it was sold to Southern Company?

   a. If so, describe the content and date of the communications.

   b. If not, explain why.

Response:

1. Xcel Energy was aware that Calpine considered selling Mankato on several occasions including 2011, 2014, 2015 and 2016. Our awareness of a potential sale of MEC by Calpine to third parties that presumably led to the transaction

with Southern Power occurred on June 3, 2016 via Calpine's request to disclose confidential information related to the PPA's governing MEC I and MEC II.

2. We are not aware of public knowledge of Calpine's consideration to sell MEC. We learned Calpine reached agreement on a sale of MEC to Southern Power via public announcement on September 1, 2016.

3. We are not aware of any process used by Calpine to identify and communicate with potential buyers.

4. Xcel Energy engaged in bilateral discussions with Calpine in each of the years 2011, 2014, 2015 and 2016 regarding a potential acquisition of Mankato.
    a. Numerous discussions occurred in each of those years related to Calpine's ongoing consideration of a sale of MEC I. Neither culminated in agreement on terms and conditions acceptable to either Calpine or Xcel Energy.
    b. Not applicable.

Preparer:	Jerry Dittman
Title:	Manager, Business Development
Department:	Corporate Development
Telephone:	612-215-4568
Date:	January 24, 2019

EXHIBIT SC-08

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Xcel Energy | Information Request No. 18

Docket No.: IP6949,E002/PA-18-702
Response To: Office of Attorney General
Requestor: Ryan P. Barlow
Date Received: January 11, 2019

Question:
For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Petition at 21.

Xcel states that the Strategist model it ran in considering the MEC purchase assumed:

- Monticello and Prairie Island would be retired by 2034;
- AS King would remain online until 2037;
- Sherco 3 would remain online until 2040; and
- A Sherco CC would be added in 2027.
- Xcel states that this model then selected the MEC I and II resources after the expiration of their PPAs.
- How will Xcel accomplish its 85% by 2030 and 100% by 2050 given these assumptions?
- Did Xcel run any Strategist modeling that did not include these all of these assumptions? Did Xcel run any Strategist modeling that include only some of these assumptions?
  - Please describe the modeling and the results.
- Did Xcel run any Strategist modeling in which the model was required to achieve 85% by 2030 or 100% by 2050?
  - Please describe the modeling and the results.
  - Was MEC selected in any case following the expiration of the PPAs?

Response:

- *Xcel states that this model then selected the MEC I and II resources after the expiration of their PPAs.* This is incorrect. The Company ran two scenarios: one where the PPAs continued under their current terms and expire in 2026 and 2039 without

extension, and another where the Company assumed ownership of the facility in June 2019. These two scenarios were run under two assumptions for future renewable growth: one where the Company maintained the current committed levels of renewables, and another where the Company added a high level of future renewables.

- *How will Xcel accomplish its 85% by 2030 and 100% by 2050 given these assumptions?*
  See our response to OAG IR No. 17.
- *Did Xcel run any Strategist modeling that did not include these all of these assumptions? Did Xcel run any Strategist modeling that include only some of these assumptions?*
  - *Please describe the modeling and the results.*

  No, the Company did not run any models that did not include these assumptions.
- *Did Xcel run any Strategist modeling in which the model was required to achieve 85% by 2030 or 100% by 2050?*
  - *Please describe the modeling and the results.*
  - *Was MEC selected in any case following the expiration of the PPAs?*

  No, the Company did not run any models where the Company was required to achieve 85% by 2030 or 100% by 2050. However, the high renewable future scenario is consistent with a future that could achieve 85% by 2030.

Preparer:	Jon Landrum
Title:	Manager, Resource Planning Analytics
Department:	Resource Planning
Telephone:	303.571.2765
Date:	January 24, 2019

EXHIBIT SC-09

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Xcel Energy | Information Request No. 2-6

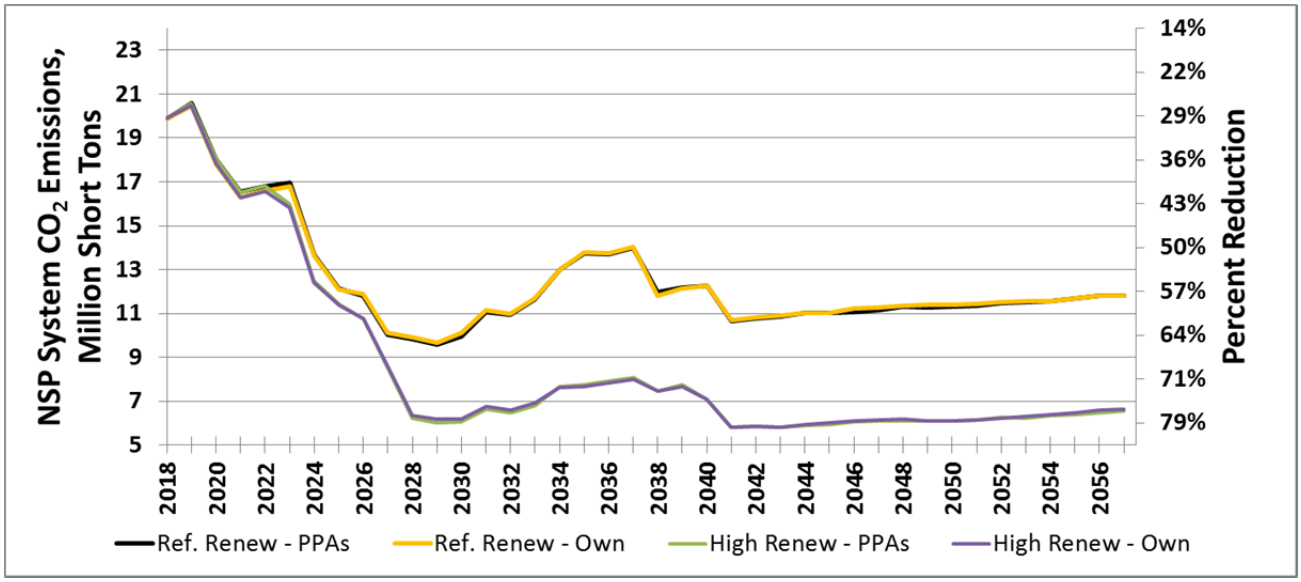
Docket No.: IP6949,E002/PA-18-702
Response To: Sierra Club
Requestor: S. Laurie Williams
Date Received: February 5, 2019

Question:
See page 33 of the application, Figure 5. Please expand this figure to include data from 2031 through 2054.

Response:
Figure 5 on page 33 of the application has been extended in the graph below to include years 2032 through 2054.

In all four scenarios modeled, CO2 emissions decline through 2029 due to retirements of thermal units and large additions of renewables. In the 2030's, there are periods of increased and decreased CO2 emissions due to the timing of retirements and additions. After 2042, gross CO2 emissions increase (on average less than 1% a year) through 2057 in all scenarios due to growth in the system energy requirements. As energy requirements increase, more generation is required to serve customers and CO2 increases. It is important to note that this pattern is observed in all scenarios, and ownership of the Mankato facility is not a significant differentiating factor.

The four scenarios provided in the application were not specifically optimized for carbon reductions beyond 2030. The generic expansion units included in the model beyond 2030, which include wind, solar and gas-fired resources, provide a basis to analyzing the cost impacts of the proposed acquisition. Achieving our long-term vision of zero-carbon electricity requires technologies that are not cost effective or commercially available today. In the upcoming and subsequent future Integrated Resource Plan filings, the Company will propose plans that are specifically designed to meet its emission goals using the most cost effective resources available at that time. The scenarios submitted in this docket are not designed to be comprehensive system plans for the planning/modeling period; rather they are to demonstrate the cost-effectiveness of the Mankato asset purchase vs. a continuation of the PPAs.



Preparer: Jon Landrum
Title: Manager, Resource Planning Analytics
Department: Resource Planning
Telephone: 303.571.2765
Date: February 8, 2019

EXHIBIT SC-10

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Xcel Energy | Information Request No. 2-5

Docket No.: IP6949,E002/PA-18-702
Response To: Sierra Club
Requestor: S. Laurie Williams
Date Received: February 5, 2019

Question:
In December of 2018, Xcel announced a goal of achieving 100% carbon free generation by 2050.

a. Did Xcel model any scenarios higher than its "High Renewables" scenario that would achieve this 100% carbon free goal?
b. If yes, please provide a table showing the annual capacity factors in the Strategist modeling for every existing and generic dispatchable resource over the modeled time horizon under this scenario.
c. If no, please explain why not.

Response:

a. No. The Company did not run any scenarios above the "high renewables" scenario or that would achieve the 100% carbon free generation goal.
b. Not Applicable.
c. As we publically stated with our announcement of the 100% carbon-free goal by 2050, achieving the long-term vision of zero-carbon electricity requires technologies that are not cost effective or commercially available today.

Preparer: Jon Landrum
Title: Manager, Resource Planning
Department: Resource Planning
Telephone: 303.571.2765
Date: February 8, 2019

EXHIBIT SC-11

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Xcel Energy | Information Request No. 17

Docket No.: IP6949,E002/PA-18-702
Response To: Office of Attorney General
Requestor: Ryan P. Barlow
Date Received: January 11, 2019

Question:
For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Xcel Energy aims for zero-carbon electricity by 2050, 12/4/18, https://www.xcelenergy.com/company/media_room/news_releases/xcel_energy_aims_for_zero-carbon_electricity_by_2050; Petition at 20.

Xcel states that its goal is to have 85 percent carbon-free generation by 2030. Xcel has publicly stated that its corporate goal is to have 100% carbon free generation by 2050. Xcel further states that its strategist modeling on the MEC purchase ran out to 2057; and that it "expects to be able to utilize MEC I through 2046 and MEC II through 2054."

- How can Xcel possibly achieve its 100% carbon free generation goal if it continues to operate MEC II past 2050?
- How does Xcel intend to achieve its 85% by 30 goal if it operates both MEC I and MEC II past 2030?

Response:
As stated in the press release, "achieving the long-term vision of zero-carbon electricity requires technologies that are not cost effective or commercially available today." For purposes of resource planning modeling, the standard book life for a combustion turbine is 35 years, thus the new turbine would have an expected operational life through 2054. We expect that technological advances may allow use to obtain value from MEC through its expect book life and beyond 2050.

The Company believes it can affordably and reliable achieve 85% carbon reduction by 2030 including operation of MEC 1 and MEC II. As discussed on pages 23 and 24 of our petition, we analyzed MEC under a "High Renewables Scenario" in order to

evaluate the proposed transfer of ownership under a scenario that can achieve our 85% carbon-free goal. The High Renewables Scenario results in 60% of generation coming from renewable sources by 2030 and a reduction in carbon of approximately 80% from 2005 level by 2030. While the preferred plan and specific decision related to early retirement of coal will be made in the IRP, the High Renewables Scenario shows the impact of the proposed transfer of ownership under a high-renewable and low-carbon future consistent with our 85% carbon-free goal.

Additionally, a Strategist Model was run to evaluate the impact of retiring the Mankato Energy Center in 2050 to align with the Company's recent press release. The table below summarizes the results:

	PVSC	***Deltas***
Reference Case	55,829	
Mankato Owned	55,578	(251)
Mankato Owned 2050	55,600	(229)
HRE		
Reference Case	53,115	
Mankato Owned	52,956	(158)
Mankato Owned 2050	52,977	(138)
	PVRR	
Reference Case	45,376	
Mankato Owned	45,233	(142)
Mankato Owned 2050	45,253	(122)
HRE		
Reference Case	44,693	
Mankato Owned	44,627	(66)
Mankato Owned 2050	44,670	(23)

While retiring MEC early does result in a cost increase from the proposed Mankato Owned alternative, it still results in a significant net savings over the PPA base case.

Preparer: Jon Landrum
Title: Manager, Resource Planning Analytics
Department: Resource Planning
Telephone: 303.571.2765
Date: January 24, 2019

EXHIBIT SC-12

2015 IRP Renewables	**PVSC**	***Deltas***
Reference Case	55,829	
Mankato Owned	55,578	(251)
Mankato Owned 2050	55,600	(229)
High Renewables		
Reference Case	53,115	
Mankato Owned	52,956	(158)
Mankato Owned 2050	52,977	(138)
2015 IRP Renewables	**PVRR**	
Reference Case	45,376	
Mankato Owned	45,233	(142)
Mankato Owned 2050	45,253	(122)
High Renewables		
Reference Case	44,693	
Mankato Owned	44,627	(66)
Mankato Owned 2050	44,670	(23)

Assumes MEC retirement May 2050

6.53%

PVSC

2015 IRP Renewables	NPV	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Reference	55,829	3,470	3,666	3,955	3,806	3,960	4,031	3,857	3,117	3,039	3,141	3,125	3,165	3,311	3,342	3,452	3,572	3,626	3,515	3,577
Mankato Owned	55,578	3,470	3,663	3,949	3,792	3,945	4,019	3,847	3,105	3,037	3,141	3,125	3,158	3,299	3,322	3,429	3,552	3,601	3,492	3,550
Mankato Owned 2050	55,600	3,470	3,663	3,950	3,793	3,945	4,020	3,848	3,106	3,037	3,141	3,126	3,158	3,299	3,322	3,429	3,553	3,601	3,492	3,550
Deltas																				
Owned	(251)	0	(3)	(6)	(14)	(15)	(12)	(10)	(12)	(2)	(0)	1	(7)	(12)	(20)	(23)	(20)	(25)	(23)	(27)
Owned 2050	(229)	0	(3)	(5)	(13)	(15)	(12)	(10)	(11)	(2)	0	1	(7)	(12)	(20)	(23)	(20)	(25)	(23)	(26)
High Renewables																				
Reference	53,115	3,470	3,666	3,955	3,806	3,960	4,009	3,834	3,130	3,045	3,114	3,014	3,045	3,160	3,137	3,209	3,281	3,288	3,136	3,191
Mankato Owned	52,956	3,470	3,663	3,949	3,792	3,945	3,996	3,826	3,120	3,045	3,132	3,036	3,059	3,171	3,144	3,216	3,287	3,269	3,114	3,166
Mankato Owned 2050	52,977	3,470	3,663	3,950	3,793	3,945	3,997	3,827	3,121	3,046	3,133	3,037	3,059	3,172	3,145	3,216	3,287	3,270	3,114	3,166
Deltas																				
Owned	(158)	0	(3)	(6)	(14)	(15)	(13)	(8)	(10)	0	18	22	14	12	7	7	6	(18)	(22)	(25)
Owned 2050	(138)	0	(3)	(5)	(13)	(15)	(13)	(7)	(10)	1	19	22	14	12	7	7	6	(18)	(22)	(24)

PVRR

2015 IRP Renewables	NPV	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Reference	45,376	2,366	2,440	2,830	2,736	2,816	2,831	2,868	2,744	2,659	2,839	2,813	2,851	2,960	2,927	3,031	3,143	3,115	2,994	3,029
Mankato Owned	45,233	2,366	2,441	2,839	2,741	2,819	2,832	2,863	2,738	2,662	2,844	2,820	2,850	2,970	2,921	3,016	3,131	3,097	2,978	3,010
Mankato Owned 2050	45,253	2,366	2,442	2,840	2,741	2,820	2,833	2,863	2,738	2,663	2,845	2,821	2,850	2,970	2,921	3,016	3,132	3,098	2,978	3,011
Deltas																				
Owned	(142)	0	2	9	4	3	1	(5)	(7)	4	5	8	(1)	10	(6)	(16)	(12)	(17)	(16)	(18)
Owned 2050	(122)	0	2	10	5	3	1	(4)	(6)	4	5	8	(0)	10	(6)	(15)	(11)	(17)	(16)	(18)
High Renewables																				
Reference	44,693	2,366	2,440	2,830	2,736	2,816	2,884	2,937	2,813	2,749	2,921	2,908	2,940	3,035	2,969	3,040	3,079	3,008	2,855	2,881
Mankato Owned	44,627	2,366	2,441	2,839	2,741	2,819	2,886	2,934	2,808	2,756	2,944	2,936	2,960	3,051	2,981	3,052	3,092	3,007	2,852	2,876
Mankato Owned 2050	44,670	2,366	2,442	2,840	2,741	2,820	2,887	2,935	2,808	2,757	2,944	2,937	2,960	3,052	2,981	3,053	3,092	3,007	2,852	2,876
Deltas																				
Owned	(66)	0	2	9	4	3	2	(3)	(5)	7	23	29	20	17	12	13	12	(1)	(3)	(5)
Owned 2050	(23)	0	2	10	5	3	3	(2)	(4)	7	24	29	20	17	13	13	13	(1)	(3)	(5)

2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057
3,635	3,599	3,699	3,840	3,855	3,884	3,911	3,989	4,158	4,286	4,437	4,607	4,700	4,796	4,906	5,015	5,120	5,227	5,336	5,422	5,382
3,605	3,565	3,648	3,794	3,808	3,836	3,859	3,924	4,090	4,272	4,410	4,578	4,663	4,757	4,868	4,984	5,088	5,236	5,336	5,422	5,382
3,605	3,565	3,648	3,794	3,808	3,836	3,860	3,924	4,092	4,273	4,412	4,571	4,663	4,796	4,906	5,015	5,120	5,227	5,336	5,422	5,382
(30)	(34)	(52)	(46)	(47)	(48)	(52)	(65)	(67)	(15)	(27)	(29)	(37)	(39)	(38)	(31)	(32)	9	0	0	(0)
(30)	(34)	(51)	(45)	(47)	(48)	(51)	(64)	(65)	(13)	(25)	(36)	(37)	(0)	0	0	0	0	0	0	(0)

3,220	3,246	3,323	3,449	3,472	3,477	3,472	3,535	3,693	3,821	3,948	4,059	4,117	4,198	4,260	4,331	4,366	4,461	4,525	4,578	4,526
3,193	3,223	3,277	3,408	3,421	3,425	3,415	3,474	3,635	3,797	3,914	4,041	4,076	4,158	4,221	4,289	4,341	4,474	4,531	4,596	4,534
3,193	3,223	3,277	3,409	3,422	3,426	3,416	3,474	3,637	3,799	3,916	4,040	4,070	4,201	4,263	4,324	4,371	4,459	4,529	4,584	4,522
(27)	(23)	(47)	(41)	(51)	(52)	(56)	(61)	(57)	(24)	(34)	(18)	(40)	(40)	(39)	(43)	(26)	13	6	17	8
(27)	(23)	(46)	(40)	(50)	(52)	(56)	(61)	(56)	(22)	(32)	(18)	(47)	3	3	(7)	5	(2)	4	5	(4)

2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057
3,051	3,163	3,223	3,336	3,477	3,505	3,512	3,590	3,744	3,853	3,981	4,128	4,243	4,316	4,404	4,489	4,600	4,684	4,766	4,854	4,790
3,029	3,106	3,169	3,292	3,431	3,457	3,461	3,504	3,655	3,867	3,982	4,103	4,210	4,281	4,370	4,461	4,571	4,694	4,766	4,854	4,790
3,029	3,106	3,170	3,292	3,431	3,458	3,462	3,504	3,657	3,869	3,984	4,095	4,210	4,318	4,404	4,489	4,600	4,684	4,766	4,854	4,790
(22)	(57)	(53)	(45)	(46)	(47)	(51)	(87)	(89)	14	1	(26)	(33)	(35)	(34)	(27)	(29)	10	0	0	0
(22)	(57)	(53)	(44)	(46)	(47)	(50)	(86)	(87)	16	3	(33)	(33)	2	0	0	0	0	0	0	0

2,908	2,976	3,017	3,171	3,331	3,320	3,324	3,370	3,518	3,652	3,763	3,859	3,943	4,009	4,056	4,100	4,129	4,232	4,276	4,311	4,266
2,905	2,966	2,989	3,150	3,268	3,255	3,256	3,297	3,467	3,610	3,710	3,819	3,884	3,950	3,998	4,048	4,108	4,217	4,254	4,325	4,245
2,905	2,966	2,990	3,150	3,269	3,255	3,257	3,297	3,469	3,611	3,712	3,870	3,856	4,020	4,068	4,112	4,143	4,214	4,290	4,325	4,245
(3)	(10)	(27)	(21)	(63)	(65)	(68)	(74)	(50)	(42)	(53)	(40)	(58)	(59)	(58)	(52)	(21)	(14)	(22)	14	(21)
(3)	(10)	(27)	(21)	(62)	(64)	(67)	(73)	(49)	(40)	(51)	11	(87)	11	12	12	14	(18)	14	15	(20)

2015 IRP Renewables	**PVSC**	***Deltas***
Reference Case	55,829	
Mankato Owned	55,578	(251)
Mankato Owned 2040	55,721	(108)
High Renewables		
Reference Case	53,115	
Mankato Owned	52,956	(158)
Mankato Owned 2040	53,102	(13)
2015 IRP Renewables	**PVRR**	
Reference Case	45,376	
Mankato Owned	45,233	(142)
Mankato Owned 2040	45,371	(5)
High Renewables		
Reference Case	44,693	
Mankato Owned	44,627	(66)
Mankato Owned 2040	44,809	116

Assumes MEC retirement December 2040

6.53%

PVSC

2015 IRP Renewables	**NPV**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Reference	55,829	3,470	3,666	3,955	3,806	3,960	4,031	3,857	3,117	3,039	3,141	3,125	3,165	3,311	3,342	3,452	3,572	3,626	3,515	3,577
Mankato Owned	55,578	3,470	3,663	3,949	3,792	3,945	4,019	3,847	3,105	3,037	3,141	3,125	3,158	3,299	3,322	3,429	3,552	3,601	3,492	3,550
Mankato Owned 2040	55,721	3,470	3,667	3,957	3,800	3,952	4,025	3,853	3,111	3,042	3,146	3,130	3,162	3,303	3,325	3,432	3,556	3,604	3,496	3,554
Deltas																				
Owned	(251)	0	(3)	(6)	(14)	(15)	(12)	(10)	(12)	(2)	(0)	1	(7)	(12)	(20)	(23)	(20)	(25)	(23)	(27)
Owned 2040	(108)	0	1	1	(7)	(9)	(6)	(4)	(6)	3	5	5	(3)	(8)	(17)	(20)	(16)	(22)	(20)	(23)
High Renewables																				
Reference	53,115	3,470	3,666	3,955	3,806	3,960	4,009	3,834	3,130	3,045	3,114	3,014	3,045	3,160	3,137	3,209	3,281	3,288	3,136	3,191
Mankato Owned	52,956	3,470	3,663	3,949	3,792	3,945	3,996	3,826	3,120	3,045	3,132	3,036	3,059	3,171	3,144	3,216	3,287	3,269	3,114	3,166
Mankato Owned 2040	53,102	3,470	3,667	3,957	3,800	3,952	4,002	3,832	3,126	3,051	3,137	3,041	3,063	3,175	3,148	3,219	3,291	3,272	3,117	3,170
Deltas																				
Owned	(158)	0	(3)	(6)	(14)	(15)	(13)	(8)	(10)	0	18	22	14	12	7	7	6	(18)	(22)	(25)
Owned 2040	(13)	0	1	1	(7)	(9)	(7)	(2)	(5)	6	23	26	18	15	11	11	10	(15)	(19)	(21)

PVRR

2015 IRP Renewables	**NPV**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**
Reference	45,376	2,366	2,440	2,830	2,736	2,816	2,831	2,868	2,744	2,659	2,839	2,813	2,851	2,960	2,927	3,031	3,143	3,115	2,994	3,029
Mankato Owned	45,233	2,366	2,441	2,839	2,741	2,819	2,832	2,863	2,738	2,662	2,844	2,820	2,850	2,970	2,921	3,016	3,131	3,097	2,978	3,010
Mankato Owned 2040	45,371	2,366	2,446	2,847	2,748	2,826	2,838	2,869	2,743	2,668	2,849	2,825	2,854	2,974	2,925	3,019	3,135	3,100	2,981	3,014
Deltas																				
Owned	(142)	0	2	9	4	3	1	(5)	(7)	4	5	8	(1)	10	(6)	(16)	(12)	(17)	(16)	(18)
Owned 2040	(5)	0	6	17	12	9	7	1	(1)	9	9	12	3	14	(3)	(12)	(8)	(15)	(12)	(15)
High Renewables																				
Reference	44,693	2,366	2,440	2,830	2,736	2,816	2,884	2,937	2,813	2,749	2,921	2,908	2,940	3,035	2,969	3,040	3,079	3,008	2,855	2,881
Mankato Owned	44,627	2,366	2,441	2,839	2,741	2,819	2,886	2,934	2,808	2,756	2,944	2,936	2,960	3,051	2,981	3,052	3,092	3,007	2,852	2,876
Mankato Owned 2040	44,809	2,366	2,446	2,847	2,748	2,826	2,892	2,940	2,814	2,761	2,949	2,941	2,964	3,055	2,985	3,056	3,095	3,010	2,855	2,879
Deltas																				
Owned	(66)	0	2	9	4	3	2	(3)	(5)	7	23	29	20	17	12	13	12	(1)	(3)	(5)
Owned 2040	116	0	6	17	12	9	8	3	1	12	28	33	24	20	16	16	16	1	0	(2)

2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057
3,635	3,599	3,699	3,840	3,855	3,884	3,911	3,989	4,158	4,286	4,437	4,607	4,700	4,796	4,906	5,015	5,120	5,227	5,336	5,422	5,382
3,605	3,565	3,648	3,794	3,808	3,836	3,859	3,924	4,090	4,272	4,410	4,578	4,663	4,757	4,868	4,984	5,088	5,236	5,336	5,422	5,382
3,608	3,560	3,646	3,795	3,855	3,884	3,911	3,989	4,158	4,286	4,437	4,607	4,700	4,796	4,906	5,015	5,120	5,227	5,336	5,422	5,382
(30)	(34)	(52)	(46)	(47)	(48)	(52)	(65)	(67)	(15)	(27)	(29)	(37)	(39)	(38)	(31)	(32)	9	0	0	(0)
(27)	(39)	(54)	(45)	0	0	0	0	0	(0)	(0)	0	0	0	0	0	0	0	0	0	0

3,220	3,246	3,323	3,449	3,472	3,477	3,472	3,535	3,693	3,821	3,948	4,059	4,117	4,198	4,260	4,331	4,366	4,461	4,525	4,578	4,526
3,193	3,223	3,277	3,408	3,421	3,425	3,415	3,474	3,635	3,797	3,914	4,041	4,076	4,158	4,221	4,289	4,341	4,474	4,531	4,596	4,534
3,196	3,218	3,275	3,409	3,472	3,481	3,475	3,538	3,695	3,819	3,946	4,077	4,114	4,195	4,257	4,324	4,371	4,459	4,529	4,584	4,522
(27)	(23)	(47)	(41)	(51)	(52)	(56)	(61)	(57)	(24)	(34)	(18)	(40)	(40)	(39)	(43)	(26)	13	6	17	8
(24)	(28)	(49)	(40)	0	3	3	3	3	(2)	(1)	18	(3)	(3)	(3)	(7)	5	(2)	4	5	(4)

2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057
3,051	3,163	3,223	3,336	3,477	3,505	3,512	3,590	3,744	3,853	3,981	4,128	4,243	4,316	4,404	4,489	4,600	4,684	4,766	4,854	4,790
3,029	3,106	3,169	3,292	3,431	3,457	3,461	3,504	3,655	3,867	3,982	4,103	4,210	4,281	4,370	4,461	4,571	4,694	4,766	4,854	4,790
3,032	3,101	3,168	3,292	3,477	3,505	3,512	3,590	3,744	3,853	3,981	4,128	4,243	4,316	4,404	4,489	4,600	4,684	4,766	4,854	4,790
(22)	(57)	(53)	(45)	(46)	(47)	(51)	(87)	(89)	14	1	(26)	(33)	(35)	(34)	(27)	(29)	10	0	0	0
(19)	(62)	(55)	(44)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

2,908	2,976	3,017	3,171	3,331	3,320	3,324	3,370	3,518	3,652	3,763	3,859	3,943	4,009	4,056	4,100	4,129	4,232	4,276	4,311	4,266
2,905	2,966	2,989	3,150	3,268	3,255	3,256	3,297	3,467	3,610	3,710	3,819	3,884	3,950	3,998	4,048	4,108	4,217	4,254	4,325	4,245
2,908	2,961	2,988	3,151	3,322	3,330	3,337	3,381	3,528	3,637	3,748	3,914	3,926	3,993	4,039	4,112	4,143	4,214	4,290	4,325	4,245
(3)	(10)	(27)	(21)	(63)	(65)	(68)	(74)	(50)	(42)	(53)	(40)	(58)	(59)	(58)	(52)	(21)	(14)	(22)	14	(21)
(0)	(15)	(29)	(21)	(9)	10	12	10	10	(15)	(15)	56	(17)	(17)	(17)	12	14	(18)	14	15	(20)

EXHIBIT SC-13

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Xcel Energy | Information Request No. 2-2
Docket No.: IP6949,E002/PA-18-702
Response To: Sierra Club
Requestor: S. Laurie Williams
Date Received: February 5, 2019

Question:
See application at page 20, stating that "we simulated the operation of the NSP System through 2057…" and page 21, stating that "[t]he Company expects to be able to utilize MEC I through 2046 and MEC II through 2054."

a. Please explain how operation of the MEC gas plant beyond 2050 is compatible with achieving Xcel's goal of achieving 100% carbon-free generation by 2050.
b. Please provide the annual and present value of revenue requirements (PVRR), and annual and present value of societal cost (PVSC) if MEC II were to be retired by no later than 2050.
c. Please provide the annual and present value of revenue requirements (PVRR), and annual present value of societal cost (PVSC) if MEC II were to be retired by no later than 2040.

Response:

a. As stated in the Company's press release, "achieving the long-term vision of zero-carbon electricity requires technologies that are not cost effective or commercially available today." For purposes of resource planning modeling, the standard book life for a combustion turbine is 35 years, thus the new turbine would have an expected operational life through 2054. We expect that technological advances may allow use to obtain value from MEC through its expected book life and beyond 2050.

   The Company believes it can affordably and reliable achieve 80% carbon reduction by 2030 including operation of MEC 1 and MEC II. As discussed on pages 23 and 24 of our petition, we analyzed MEC under a "High Renewables Scenario" in order to evaluate the proposed transfer of ownership under a scenario that can achieve our carbon reduction goals. The High

Renewables Scenario results in 60% of generation coming from renewable sources by 2030 and a reduction in carbon of approximately 80% from 2005 level by 2030. While the preferred plan and specific decision related to early retirement of coal will be made in the IRP, the High Renewables Scenario shows the impact of the proposed transfer of ownership under a high-renewable and low-carbon future consistent with our 85% carbon-free goal.

b. Please see Attachment A to this response for the annual PVRR and PVSC for the requested scenario where Mankato retires no later than 2050. As noted in the response above, we expect that technological advances may allow use to obtain value from MEC through its expected book life and beyond 2050.

c. Please see Attachment A to this response for the annual PVRR and PVSC for the requested scenario where Mankato retires no later than 2040. As noted in the response above, we expect that technological advances may allow use to obtain value from MEC through its expected book life and beyond 2050. Retiring Mankato in 2040 reduces the expected 35 year life of MEC II by 14 years, which we do not believe is a reasonable assumption. Nevertheless, the analysis shows net benefits under the 2015 IRP renewables scenario on a PVSC and PVRR basis and net benefits under the High Renewables scenario on a PVSC basis.

Preparer:	Jon Landrum
Title:	Manager, Resource Planning Analytics
Department:	Resource Planning
Telephone:	303.571.2765
Date:	February 15, 2019

EXHIBIT SC-14

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Xcel Energy Information Request No. 15

Docket No.: IP6949,E002/PA-18-702
Response To: Citizens Utility Board of Minnesota
Requestor: Joseph Pereira
Date Received: January 23, 2019

Question:
1. Please provide all analysis, working papers, or related documents assessing risks related to stranded asset potential for the purchase of Mankato Energy Center I and II.

Response:
The Company objects to this request as overly broad as to scope and unduly burdensome. Notwithstanding the Company's objection, our assessment of the acquisition of MEC I & II in concert with our load and resource projections does not identify risks associated with these assets being stranded. No analysis directed at that possibility was performed. We anticipate the MEC facility will be a viable resource serving our customer load throughout its useful life.

Preparer: Jerry Dittmann
Title: Manager Corporate Development
Department: Corporate Development
Telephone: 612-215-4568
Date: February 4, 2019

EXHIBIT SC-15

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Xcel Energy | Information Request No. 11

Docket No.: IP6949,E002/PA-18-702
Response To: Office of Attorney General
Requestor: Ryan P. Barlow
Date Received: January 11, 2019

Question:
For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Strategist modeling.

Does the Company's Strategist model include any quantified risk related to the possibility that MEC I or II could become stranded assets. If so, explain it and the impact it has on the outcome of the model.

Response:
No, the Strategist model does not include any quantified risk related to stranded asset costs. The Company is confident that the Mankato resource will serve as a important flexible resource that provides firm capacity for the full useful life of the asset. It is impossible to predict when or if new technologies will come along that can perfectly mimic all of the characteristics of a combined cycle in a more economic and less carbon intensive way. However, based on current technology and expectations, there is no substitute that can provide all of the characteristics of a combined cycle and therefore, we believe that the risk of MEC I and MEC II becoming stranded is low.

Preparer: P.J. Martin
Title: Director, Resource Planning
Department: Resource Planning
Telephone: 612-321-3065
Date: January 24, 2019

EXHIBIT SC-16

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Xcel Energy | Information Request No. 10

Docket No.: IP6949,E002/PA-18-702
Response To: Office of Attorney General
Requestor: Ryan P. Barlow
Date Received: January 11, 2019

Question:
For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Strategist modeling.

Does the model include the assumptions below for the "MEC Xcel ownership" scenario? If yes, indicate where this information can be found in the petition. If no, provide detailed explanation on why it is not included.

1) Additional compensation expense for those employees brought over from MEC, LLC (salaries/wages/pension obligations)?
2) Any costs related to transition activities to merge MEC, LLC and Northern States Power Company operational systems and processes?
3) Any early retirements of existing plants currently on the Company's books?
4) Any accelerated depreciation from early plant retirements?

Response:

1) Yes, the financial model included forecasted regular and overtime labor costs for both the existing 1x1 combined cycle operation and anticipated costs in the future 2x1 combined cycle operation following retirement of MEC I. The model assumes long term plant labor costs in accordance with Xcel Energy's typical combined cycle plant operations, and is adequate to cover any obligations to the current MEC employees.
2) Yes, the financial model included project costs to integrate MEC systems and processes into Xcel Energy standards for cyber and physical security, computer networking, safety systems, operational systems and procedures, and equipment monitoring.
3) Yes, the Strategist model includes the early shutdown of Sherco Units 1 and 2 as approved by the Commission in our last IRP.

4) The depreciation lives of Sherco Units 1 and 2 reflect the early shutdown schedule as approved by the Commission in our last IRP.

Preparer: Jon Landrum
Title: Manager, Resource Planning Analytics
Department: Resource Planning
Telephone: 303.571.2765
Date: January 24, 2019

EXHIBIT SC-17

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☐ **Public Document – Not Public Data Has Been Excised**
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Xcel Energy | Information Request No. 2-4

Docket No.: IP6949,E002/PA-18-702
Response To: Sierra Club
Requestor: S. Laurie Williams
Date Received: February 5, 2019

Question:
See page 30 of the application, stating, "If coal retirements are accelerated to the late 2020s or if solar accreditation is reduced, additional capacity benefits of the transfer of ownership may be realized."

a. Please explain whether the PVSC and PVRR of the proposed gas plant acquisition would improve if coal retirements were accelerated to the late 2020s.
b. Please provide the underlying analysis in Excel format.

Response:

a. The Company has not completed the analysis requested, so cannot determine the specific impact to PVSC and PVRR. The quotation cited is stating that incremental coal retirements and/or reduction in solar accreditation will reduce the firm capacity of the existing generation portfolio, and result in an accelerated need for additional capacity. Purchase of the Mankato facility results in additional "locked in" capacity for the late 2020's and beyond over the existing PPAs, and thus reduces the impact of future changes that result in incremental capacity need.
b. See response to subpart a.

Preparer: Jon Landrum
Title: Manager, Resource Planning analytics
Department: Resource Planning
Telephone: 303.571.2765
Date: February 8, 2019

EXHIBIT SC-18

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Xcel Energy | Information Request No. 12

Docket No.: IP6949,E002/PA-18-702
Response To: Office of Attorney General
Requestor: Ryan P. Barlow
Date Received: January 11, 2019

Question:
For all responses show amounts for Total Company and the Minnesota jurisdictional retail unless indicated otherwise. Total Company is meant to include costs incurred for both regulated and non-regulated operations.

Reference: Strategist modeling.

Other than comparing "MEC Xcel ownership" scenario to "MEC Southern Power ownership and PPA" scenario, has the Company considered any other alternative resource to compare the MEC Xcel ownership scenario against? If yes, provide details and associated costs.

If no, explain why the Company did not look into any other scenario besides the two presented, given that it is currently developing its IRP filing.

Response:
There are existing PPAs approved by the Commission for MEC I and II. The analysis conducted by the Company compares systems costs under the existing PPAs to the costs under the proposed acquisition of MEC. The costs were compared under a "2015 IRP Renewables Scenario" that assumed the renewable additions shown in Table 2 of the filing as well as a "High Renewables Scenario" that assumed the renewable additions shown in Table 3 of the filing. Under the "High Renewables Scenario," 60 percent of total generation is from renewable sources by 2030 and carbon emissions are reduced approximately 80% from 2005 levels by 2030. Each of these scenarios were tested using 12 different sensitivities which are summarized in Tables 6 and 7 of the initial filing. The model was allowed to optimize the thermal resource additions and dispatch under each run. Please note that the expansion plans showing the resource additions in each year included in Tables 15 through 18 of the initial petition were updated in an errata filed with the Commission on December 18, 2018.

Preparer: Chris Shaw
Title: Manager, Regulatory Policy
Department: Regulatory Affairs
Telephone: 612-330-7974
Date: January 24, 2019

EXHIBIT SC-19

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☒ **Public Document**

Xcel Energy | Information Request No. 12

Docket No.: IP6949,E002/PA-18-702
Response To: Citizens Utility Board of Minnesota
Requestor: Joseph Pereira
Date Received: January 23, 2019

Question:
1. Please provide the scheduled closing date for the purchase of the Mankato Energy Center I and II.

Response:
The closing of the transaction is dependent on satisfaction of several closing conditions, including completion of the MEC II expansion, receipt of all regulatory approvals, and each party's satisfaction of certain covenants between signing and closing. As such, a specific closing date has not been identified. Depending on the timing of receipt of regulatory approvals, a closing could occur as early as approximately June 1, 2019.

Preparer: Jerry Dittmann
Title: Manager, Corporate Development
Department: Corporate Development
Telephone: 612-215-4568
Date: February 4, 2019

EXHIBIT SC-20

PUBLIC DOCUMENT –
NOT PUBLIC DATA HAS BEEN EXCISED

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Xcel Energy Information Request No. 13
Docket No.: IP6949,E002/PA-18-702
Response To: Citizens Utility Board of Minnesota
Requestor: Joseph Pereira
Date Received: January 23, 2019

Question:
1. Please provide a list of all fees, penalties, fines, and other associated costs/ losses with not closing the purchase of the Mankato Energy Center I and II on the scheduled date. Provide any analysis, if conducted, that evaluates company or consumer benefit/ loss associated with the scheduled closing date.

Response:
There is a **[PROTECTED DATA BEGINS PROTECTED DATA ENDS]** reverse breakup fee in the Membership Agreement. This potential breakup fee would be payable by NSPM in the event the transaction is not approved by state regulators as requested and becomes subject to terms and conditions that are materially detrimental to the value of the transaction to NSPM.

Similarly, NSPM was able to obtain a purchase price reduction of **[PROTECTED DATA BEGINS PROTECTED DATA ENDS]** in the event the expansion of Mankato does not attain commercial operation by June 1, 2019 (and assuming state regulatory approvals have been obtained).

Relevant analysis is provided as Attachment H to our initial petition which shows the Company's revenue requirement underrecovery due to the difference between the 2019 revenue requirement resulting from the transaction and the revenues already in base rates for the capacity portions of the current MEC I and MEC II PPAs. The analysis shows the impact of the purchase based on three different closing dates- in June, August, and September of 2019. As demonstrated in Attachment H, assuming a closing date in June of 2019, the Company would underrecover approximately $4 million in 2019, an August 2019 closing date equals underrecovery of approximately $9 million in 2019, and a closing date in September of 2019 means under recovery of approximately $11 million.

CERTIFICATE OF SERVICE

I, S. Laurie Williams, hereby certify that I have this day, served or caused to be served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States mail.

Sierra Club Initial Comments

Docket No. IP6949, E002/PA-18-702

Dated this 5th day of March 2019

/s/ S. Laurie Williams

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