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**STATE OF MINNESOTA
BEFORE THE PUBLIC UTILITIES COMMISSION**

Katie Sieben	Chair
Joseph K. Sullivan	Vice-Chair
Valerie Means	Commissioner
Matt Schuerger	Commissioner
John Tuma	Commissioner

In the Matter of Northern States Power
Company dba Xcel Energy's 2020–2034
Upper Midwest Integrated Resource Plan

DOCKET NO. E-002/RP-19-368

**REVISED REPLY COMMENTS
OF THE OFFICE OF THE
ATTORNEY GENERAL**

INTRODUCTION

The Office of the Attorney General—Residential Utilities Division (“OAG”) respectfully submits the following Reply Comments in response to the Minnesota Public Utilities Commission’s (“Commission”) Notice of Extended Reply Comment Period issued on March 30, 2021, which solicits comments on Xcel Energy’s 2020–2034 Upper Midwest Integrated Resource Plan (“IRP”).

These Reply Comments respond to the Initial Comments of Citizens Utility Board, Clean Energy Organizations (“CEOs”), Department of Commerce, Division of Energy Resources (“the Department”), Sierra Club, and other parties. The initial comments filed in this docket demonstrate that Xcel’s proposed 800 MW combined cycle gas plant (“the Sherco CC”) is not in the public interest. The Sherco CC would significantly and needlessly increase costs for customers, and would also expose customers to greater risk, including volatile fuel costs, expected federal regulatory policies, and potentially lower than forecast market sales revenues.

The OAG recommends the Commission modify Xcel’s resource plan to remove the Sherco CC. In lieu of the Sherco CC, the OAG recommends the Commission require Xcel to complete a

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competitive bidding process to procure solar-plus-storage projects, which the record shows will be both lower-cost and lower-risk for customers.

BACKGROUND

Xcel initially proposed the Sherco CC as part of its 2015 resource plan, where the main disputed issue was whether and when it would retire Sherco units 1 and 2.¹ Xcel's initial filing included a preferred plan that would have continued to run these two coal units through at least 2030.² It was not until intervening parties filed initial comments that included modeling of alternative plans that included retiring these two units that Xcel asked the Commission for permission to file a revised plan that retired Sherco 1 and 2 in 2026 and 2023, respectively.³ As part of the revised plan, Xcel also proposed to build a combined cycle gas plant on site at Sherco after the coal units retired.⁴ Stakeholders generally supported Xcel's revised plan, but argued to the Commission that it was premature in the regulatory cycle to approve a particular replacement resource at a particular site—that level of specificity was intended for a certificate of need proceeding.⁵

The Commission agreed and authorized Xcel to file for a certificate of need for a resource of the approximate size and providing the same type of energy (an intermediate resource) as the proposed Sherco CC. “[M]ore likely than not there will be a need for approximately 750 MW of

¹ Docket No. E-002/RP-15-21, Xcel Energy's 2016–2030 Upper Midwest Resource Plan at 13 (Jan. 2, 2015) (“We recognize that the future of Sherco Units 1 and 2 is of fundamental interest to all of our regulators and other stakeholders.”).

² *Id.* at 13–14 (“[O]ur Preferred Plan assumes the continued operation of Sherco Units 1 and 2 through 2030[.]”).

³ Docket No. E-002/RP-15-21, Xcel Energy Reply to the July 2, 2015 Comments received on its 2016–2030 Upper Midwest Resource Plan at 2 (Oct. 2, 2015).

⁴ *Id.*

⁵ See Docket No. E-002/RP-15-21, Order Approving Plan with Modifications and Establishing Requirements for Future Resource Plan Filings at 9 (Jan. 11, 2017) (“The Department, the Clean Energy Organizations, and the Xcel Large Industrials objected to a decision that would commit to specifics such as the exact location, fuel type, and generation capacity.”).

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intermediate capacity coinciding with the retirement of Sherco 1 in 2026.”⁶ The Commission intended for the certificate of need process to include an alternatives analysis that had been lacking in the resource plan proceeding. “The process will allow consideration of resources or resource combination alternatives that meet the identified resource and reliability need without prejudging or foreclosing Xcel’s preferred plan. Potential need-addressing alternatives between 2025 and 2030 could include renewal of some expiring [power purchase agreements], additional demand response, or some other new generation.”⁷

Before the Commission issued its written order, the Legislature passed a bill that, as initially introduced, would have allowed Xcel to build the plant as proposed without seeking a certificate of need and required the Commission to approve *all* costs associated with the construction and operation of the plant.⁸ After objections to the “blank check” this would provide to Xcel, the legislature amended the bill to require the Commission to approve only “reasonably and prudently incurred costs” rather than all costs.⁹ The final version of the bill went a step further toward protecting customers: while it still allowed Xcel to bypass the certificate of need for a gas plant built at Sherco—whether as proposed in the 2015 resource plan or as approved by the Commission in a later resource plan—it stated that “[r]easonable and prudently incurred costs and investments . . . may be recovered” by Xcel pursuant to the provisions of Minnesota Statutes, section 216B.16.¹⁰

⁶ *Id.* at 11.

⁷ *Id.* at 9.

⁸ [A bill for an act relating to energy; authorizing construction and operation of a natural gas combined cycle electric generation plant](#), H.F. 113, 90th Leg., Reg. Sess. (Minn. 2017).

⁹ Journal of the House – [7th Day – Thursday, January 19, 2017](#) at 122.

¹⁰ [An act relating to energy; authorizing construction and operation of a natural gas combined cycle electric generation plant](#), 2017 Minn. Laws, ch. 5, § 1 (hereinafter “Sherco CC Law”).

ANALYSIS

I. THE COMMISSION SHOULD REJECT XCEL’S PROPOSAL TO APPROVE THE SHERCO CC BECAUSE IT WOULD NEEDLESSLY INCREASE COSTS FOR CUSTOMERS AND SUBJECT THEM TO EXCESSIVE RISKS.

The Commission’s duty in this IRP proceeding is to consider and uphold the public interest. Specifically, the Commission must “approve, reject, or modify” Xcel’s resource plan “consistent with the public interest.”¹¹ While the “public interest” is not statutorily defined, it includes considerations such as cost-effectiveness, environmental impacts, and compliance with statutory goals and preferences. Based on these considerations, Xcel has urged the Commission to conclude that its preferred plan is in the public interest: “The Supplement Preferred Plan best positions the Company to achieve our ambitious carbon-reduction goals while maintaining a reliable system and keeping our customers’ bills low and, therefore, is in the public interest and should be approved.”¹²

The record in this proceeding shows that this is not true. The Sherco CC would increase costs for customers and would expose them to an excessive amount of risk. In addition, the Commission is not legally required to approve the Sherco CC or to find that it is part of Xcel’s least cost plan. The OAG recommends the Commission find that the Sherco CC is not in the public interest and modify Xcel’s resource plan to remove the Sherco CC.

A. The Sherco CC Would Increase Customer Costs.

Parties’ initial comments demonstrate that the Sherco CC is not the most cost-effective option and would result in significant increases to customers’ bills. The OAG’s comments

¹¹ Minn. Stat. § 216B.2422, subd. 2(a).

¹² Docket No. E-002/RP-19-368, Xcel Energy Upper Midwest Integrated Resource Plan 2020–2034 Supplement at 1 (June 30, 2020) (hereinafter “Supp.”).

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highlight the analyses of the Department and the CEOs, but we note that several other parties came to similar conclusions.

The Department's analysis demonstrates the Sherco CC is not cost-effective. In the bulk of its Strategist runs, the Department "locked in" the addition of the Sherco CC in 2027, just as Xcel did.¹³ However, the Department did perform an analysis of its preferred scenario (134) with and without the Sherco CC.¹⁴ The Department's analysis found that removing the Sherco CC lowered PVSC by \$205 million in the Base Case. Moreover, the findings were robust: removing the Sherco CC lowered PVSC in *every one* of the twenty-four contingencies used by the Department (and Xcel), including a \$203 million cost reduction when externality costs are excluded.¹⁵ This means that even without considering the cost of the pollution that would be generated by the Sherco CC, the plant is not cost-effective.

The CEOs' modeling came to similar conclusions. In the CEOs' Base Case—which adjusts for many of the biases described in the next section—the PVSC for the CEO's preferred plan is \$245 million lower than the lowest-cost plan that includes the Sherco CC.¹⁶

In addition to the price premium of the Sherco CC, the CEOs' modeling analysis had another important finding: when the CEOs lowered solar and battery costs and gave EnCompass the option to select solar-plus-storage hybrid projects, the model preferred these hybrid projects to the Sherco CC. This is noteworthy because the Department's analysis—which did not include hybrid projects as an option that could be selected—showed a preference for standalone solar in the mid-term. It is not clear whether the Department's modeling would have selected solar-plus-

¹³ Department Initial Comments at 45 (Feb. 11, 2021) (eDocket No. [20212-170853-01](#)).

¹⁴ *Id.* at 66. The results of the analysis can be found by comparing the PVSCs of Scenario 134 (Attachment 1, page 34 of 36) with Scenario 134a (Attachment 3, page 1 of 1).

¹⁵ It is also noteworthy that the Department removed the Generic CC as a resource option because "a CC unit was never selected in about 2,000 draft model runs." *Id.* at 56.

¹⁶ CEO Initial Comments, Attachment A at 21 (Feb. 11, 2021) (eDocket No. [20212-170901-04](#)).

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storage if given the option, but the point is that both parties' modeling showed that robust solar additions in some form would be far less expensive for customers than building the Sherco CC.

B. Xcel's IRP Modeling Is Biased in Favor of the Sherco CC.

Many parties have shown why Xcel's proposal is not cost-effective. Xcel has argued that its preferred plan is cost-effective, but its arguments are based on its flawed and biased modeling. In their initial comments, other parties identified numerous inputs used in the Company's capacity expansion modeling that are biased in favor of its proposed Sherco CC. The following is a brief summary of some of Xcel's most dubious assumptions that bias its model in favor of the Sherco CC and against competing technologies such as solar and battery storage:

- **Xcel forced the capacity-expansion models to include the Sherco CC.** As several parties noted, Xcel hardwired the Sherco CC into every capacity-expansion modeling run, rather than allowing the model to determine whether or not the Sherco CC should be included. This deprives the Commission of insight into the cost-effectiveness of the project.
- **Xcel overestimates its customers' future energy usage and peak demand.** The Department found Xcel's load forecasts are "systematically biased," consistently overestimating its customers' peak demand and energy needs.¹⁷ This could lead to the Company to procuring more generation resources than necessary—or procuring resources before they are needed—thus unnecessarily increasing costs for customers.
- **Xcel dramatically overestimated the cost of battery storage.** The CEOs provided battery storage cost data from actual approved projects in New Mexico that suggest Xcel's Base forecast overestimates battery storage costs by 68 percent for 2022 projects,

¹⁷ Department Initial Comments at 25 (Feb. 11, 2021) (eDocket No. [20212-170853-01](#)).

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and even Xcel’s “Low” forecast overestimates costs by 40 percent.¹⁸ Even with these price reductions, the CEOs’ battery cost assumptions appear to overstate battery storage costs. In its 2017 Colorado all-source bidding solicitation, Xcel received bids from multiple developers for four-hour battery storage at under \$10/kW-month, with the low bid coming in at \$8.61/kW-month.¹⁹ Battery storage costs have been falling at a breakneck pace, making it imperative to use as up-to-date pricing information as possible.²⁰ Xcel’s battery storage cost forecast is woefully out of date.

- **Xcel overestimated the cost of solar generation.** The CEOs and Sierra Club pointed out that Xcel overestimated the cost of solar generation. For example, Xcel’s forecasted levelized cost for a utility-scale solar project with a commercial operation date (“COD”) of 2023 is \$53.81/MWh. For comparison, LevelTen Energy—which maintains “the world’s largest collection of PPA pricing offers, spanning 21 countries in North America and Europe”—found the 25th percentile solar PPA in the Minnesota Hub of MISO was \$36/MWh in the first quarter (“Q1”) of 2021.²¹ Even Xcel’s “Low” solar cost scenario—\$44.66/MWh for a 2023 COD—significantly exceeds the MISO solar PPA average. Thus, Xcel’s solar cost forecasts are unreasonably high, making its proposed Sherco CC appear more cost-effective by comparison.
- **Xcel did not adequately consider solar-plus-storage hybrid projects.** The vast majority of Xcel’s modeling runs did not even include hybrid projects as an option, because Xcel deemed hybrid projects not cost-effective. However, when the CEOs

¹⁸ CEO Initial Comments, Attachment A at 10 (Feb. 11, 2021) (eDocket No. [20212-170901-04](#)).

¹⁹ *In the Matter of the Application of Public Service Company of Colorado for Approval of Its 2016 Electric Resource Plan*, Colo. Pub. Utils. Comm’n No. 16A-0396E, Notice of Re-Filing Confidential and Highly Confidential Information as Public, attach. 9 at 2 (Jan. 14, 2021) (Document ID [938706](#)).

²⁰ See, e.g., BloombergNEF, [Battery Pack Prices Cited Below \\$100/kWh for the First Time in 2020, While Market Average Sits at \\$137/kWh](#) (Dec. 16, 2020).

²¹ LevelTen Energy, [PPA Price Index: Q1 2021](#) at 3, 25 (Apr. 13, 2021).

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updated the solar and battery cost forecasts, EnCompass selected a significant amount of solar-plus-storage hybrid projects.²² Thus, by excluding solar-plus-storage hybrid projects, Xcel eliminated a potentially lower-cost alternative to its Sherco CC.

- **Xcel only allowed solar, wind, and storage additions in unreasonably large increments.** As the Sierra Club noted, the *minimum* sized project Xcel allowed to be added in any given year was 750 MW for wind, 500 MW for solar, and 321 MW for battery storage.²³ From customer cost perspective, a major benefit of renewable generation is its scalability; unlike thermal resources—which can typically only be built in large increments—renewables can be scaled to the energy or capacity need and can be added in phases over multiple years to match the energy and/or capacity need. This modeling decision further biased the results in favor of the Sherco CC.
- **Xcel dramatically overestimates potential capacity sales prices.** As the Department noted, Xcel’s strategist modeling allows the Company to sell up to 500 MW of capacity into the market at the maximum possible MISO capacity price—i.e., the cost of new entry (“CONE”). This price is dramatically higher than what Xcel would likely receive for selling any excess capacity. The clearing price for MISO’s Planning Resource Auction has averaged just \$5.25/MW-day for Zone 1 over the past eight years. For comparison, the CONE for planning year 2021–22 is \$254.27/MW-day for Zone 1, or *nearly fifty times higher* than the average clearing price.²⁴

This list is far from exhaustive, but it illustrates the systematic bias in Xcel’s capacity expansion modeling. Each of these biases favors the Sherco CC, either directly—by overstating

²² CEO Initial Comments, Attachment A at 17 tbl. 5 (Feb. 11, 2021) (eDocket No. [20212-170901-04](#)).

²³ Sierra Club Initial Comments at 13–14 (Feb. 11, 2021) (eDocket No. [20212-170888-02](#)).

²⁴ Midcontinent Independent System Operator, [2021/2022 Planning Resource Auction Results](#) at 9 (Apr. 15, 2021).

the plant's potential benefits or forcing the model to include the plant—or indirectly—by artificially increasing the cost of alternative resources. As detailed in the preceding section, when these biases are rectified, it is clear the Sherco CC would significantly and unreasonably increase costs for customers.

C. The Sherco CC Would Expose Customers to Excessive Risk.

In addition to increasing system costs, Xcel's proposed Sherco CC would also significantly increase risk for customers, including greater exposure to volatile fuel costs, expected federal regulatory policies, and potentially lower than forecast market sales revenues.

The Department noted that Xcel's modeling suggests the Sherco CC will operate at a suspiciously high capacity factor (i.e., above 70 percent).²⁵ As the Department explained, this is likely the result of Xcel's treatment of spot market prices in its capacity expansion modeling: the market energy price is exogenous, meaning the market price is the same in a given period regardless of the Company's resource additions or retirements. This means if the model finds that Xcel could build a new generation resource with a levelized cost that is below the market energy price, the model will select the new resource with the expectation that the profits from market sales will reduce the revenue requirement. However, as the Department explained, in the real world other utilities and merchant generators would respond to an energy market price gap, the gap would disappear, and the expected profits from market sales would not materialize.²⁶ Thus, the Department concluded:

[Capacity expansion models ("CEMs")] are a static model of a dynamic process. As a result, it is not enough to simply get a set of results. It is critical to understand why the model is producing the results and to understand the resulting risks from factors outside the model's consideration. The result for the IRP is that units recommended for Xcel's expansion plan may differ from CEM outcomes due to the necessity of considering factors beyond the CEM's ability to consider. In particular,

²⁵ Department Initial Comments at 66 (Feb. 11, 2021) (eDocket No. [20212-170853-01](#)).

²⁶ *Id.* at 32–34.

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*units may be removed from the proposed expansion plan if it appears they are cost effective largely due to an assumed gap between the unit's costs and the expected revenues from the Spot Market.*²⁷

The Sherco CC epitomizes the Department's concerns. The Department's analysis found the Sherco CC was running at a capacity factor of over 70 percent, and that roughly *half* of the Sherco CC's generation was being sold into the spot market.²⁸ This outcome is extremely unlikely, and if these market sales do not materialize, customers will still be required to pay the full revenue requirements—including the Company's return on rate base—for the plant, even if it ends up running half as often as the Company currently projects. It is unreasonable for Xcel to expose customers to this risk.

The Sherco CC's large size and long book life would also expose customers to significant environmental regulatory risk. Xcel's own carbon-reduction goals include producing 100 percent carbon-free energy by 2050.²⁹ The Walz Administration has proposed an even more ambitious target to produce 100% carbon free electricity by 2040.³⁰ And the Biden Administration has set the most ambitious goal of "100 percent carbon pollution-free electricity by 2035."³¹ Xcel projects a book life of 40 years for the Sherco CC, meaning its useful life would extend to 2068.³² This would be long after Xcel plans to eliminate all emissions. Thus, building a plant with a 40-year lifespan in 2027 means that it will either (1) be shut down well before the end of its useful life, (2) require expensive upgrades that are not included in Xcel's cost calculations, or (3) render the company unable to meet the state and federal governments' stated goals, as well as its own goals.

²⁷ *Id.* at 33–34 (emphases added).

²⁸ *Id.* at 66.

²⁹ Xcel Supp. at 1.

³⁰ Kirsti Marohn, [Walz calls for 100 percent carbon-free electricity by 2040](#), MINNESOTA PUBLIC RADIO (Jan. 25, 2021).

³¹ The White House, [FACT SHEET: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies](#) (Apr. 22, 2021).

³² Xcel Supp. at 76, Table IV-22.

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In addition, the U.S. Court of Appeals for the D.C. Circuit recently vacated the Trump Administration’s proposed Affordable Clean Energy rule, which was intended to regulate greenhouse gas emissions from power plants under section 111(d) of the Clean Air Act. As a result, the EPA must now develop its own rule to ensure Clean Air Act section 111(d) compliance.³³ While it is not yet known what the new rule regulating greenhouse gas emissions from power plants will require, it could have enormous impacts for fossil fuel power plants.

Further, the U.S. Senate recently voted to reinstate regulation of methane emissions from gas extraction, and the House is expected to follow suit.³⁴ These and other potential methane regulations could lead to significantly higher gas prices. Moreover, even if gas prices do not increase significantly, the Sherco CC would expose customers to gas’s considerable price volatility. For example, during the February 2021 winter storm, gas prices increased nearly tenfold in one week.³⁵

D. The Sherco CC Law Does Not Require the Commission to Find that the Sherco CC Is in the Public Interest or to Treat It as an Approved Project in this Proceeding.

Despite the many problems with Xcel’s proposed Sherco CC, stakeholders differ as to whether and how the Sherco CC Law affects the Commission’s decision in this case. The Department concludes that, because the Sherco CC Law allows Xcel to bypass the certificate-of-need process for the Sherco CC, “it is appropriate to treat the Sherco CC unit as an approved project in this proceeding.”³⁶ Other parties, however, reach the opposite conclusion.³⁷ And Xcel

³³ Catherine Morehouse, [*DC Circuit Rejects Trump EPA ACE Rule, Opening Door for More Stringent Regulations Under Biden*](#), UTILITY DIVE (Jan. 20, 2021).

³⁴ Emma Newburger, [*Senate Votes to Restore Obama-Era Regulation of Methane, a Climate-Warming Gas*](#), CNBC (Apr. 28, 2021).

³⁵ U.S. Energy Information Administration, [*Cold weather brings near record-high natural gas spot prices*](#) (Mar. 5, 2021).

³⁶ Department Initial Comments at 44 (Feb. 11, 2021).

³⁷ See Citizens Utility Board Initial Comments at 9–10; CEO Initial Comments at 5–8, Northern Natural Gas Initial Comments at 5–6; Sierra Club Initial Comments at 105–08.

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has not said whether it believes the Sherco CC Law impacts the Commission's authority under the resource planning statute.

The Sherco CC Law has no bearing on the Commission's resource-planning decisions in this case. The law does not declare that the Sherco CC is in the public interest, require Xcel to construct it, or require Xcel to include it in a future resource plan. Moreover, nothing in the law requires the Commission to find that the Sherco CC is part of a least-cost resource package if it is not, and it does not force the Commission to approve a resource plan that includes a gas plant at Sherco. Simply put, the Sherco CC Law does not alter the Commission's duties under the resource-planning statute.

Instead, the Sherco CC Law simply allows Xcel to construct the Sherco CC regardless of whether it is in the public interest or is least-cost compared to alternatives. The Commission, however, has a duty to ensure that customers do not bear the risk of constructing a plant that will increase customer costs and will almost certainly not be running 25 years from now. In other words, Xcel may take on that risk, and the Sherco CC Law prevents the Commission from opposing it, but the law does not require that the Commission to backstop a bad decision by Xcel with customer money. And as described above, there is ample evidence in the record to support a finding that the Sherco CC is not, in fact, in the public interest because it increases customer costs and risk. Accordingly, the OAG urges the Commission to find that the Sherco CC is not in the public interest and to modify Xcel's IRP to remove the combined cycle plant.

II. INSTEAD OF APPROVING THE SHERCO CC IN A RESOURCE PLAN, THE COMMISSION SHOULD REQUIRE XCEL TO COMPLETE A COMPETITIVE BIDDING PROCESS FOR SOLAR-PLUS-STORAGE PROJECTS.

It is the Commission's statutory duty to approve, reject, or modify a resource plan consistent with the public interest. The record is clear: the Sherco CC would both increase costs for customers and expose them to an excessive amount of risk and, thus, is not in the public

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interest. The OAG recommends that the Commission modify Xcel's resource plan to remove the Sherco CC. In lieu of the Sherco CC, the OAG recommends that the Commission require Xcel to complete a competitive bidding process to procure solar-plus-storage projects. The record from this and other proceedings demonstrates that a robust bidding process for solar-plus-storage resources will likely result in the least cost resource needed to meet future needs.

A. Solar-Plus-Storage Hybrid Projects Are the Lowest Cost Resource.

As detailed in Section I.B, Xcel's modeling assumptions significantly overstate the cost of solar generation and battery storage. Figures 1 and 2 below compare Xcel's forecasted solar and battery storage costs with the LevelTen Energy Minnesota solar PPA price in Q1 2021 and the low bid for four-hour battery storage from Xcel Colorado's 2017 all-source bidding process. As Figure 1 shows, the 25th percentile Minnesota solar PPA price in Q1 2021 is lower than Xcel's "Low" solar cost forecast in *every year of the planning horizon*. Similarly, Figure 2 shows that the actual low bid for battery storage Xcel received in its Colorado solicitation is not only dramatically lower than Xcel's "Low" battery cost forecast for 2023, but also lower than Xcel's "Low" battery cost forecast *through 2044*.

Figure 1. Xcel Base and Low solar cost forecasts compared to 25th percentile MN Hub solar PPA

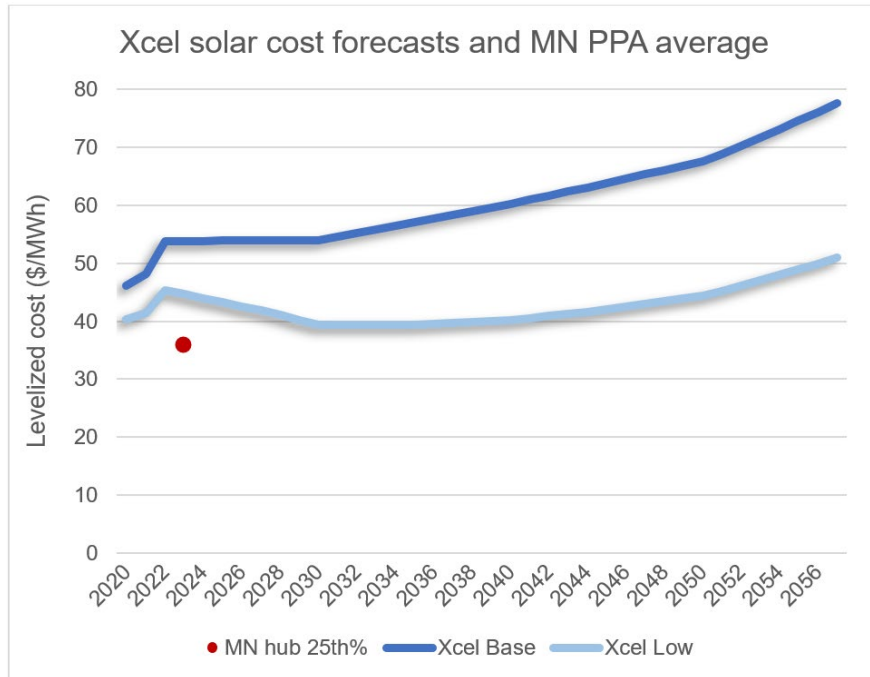
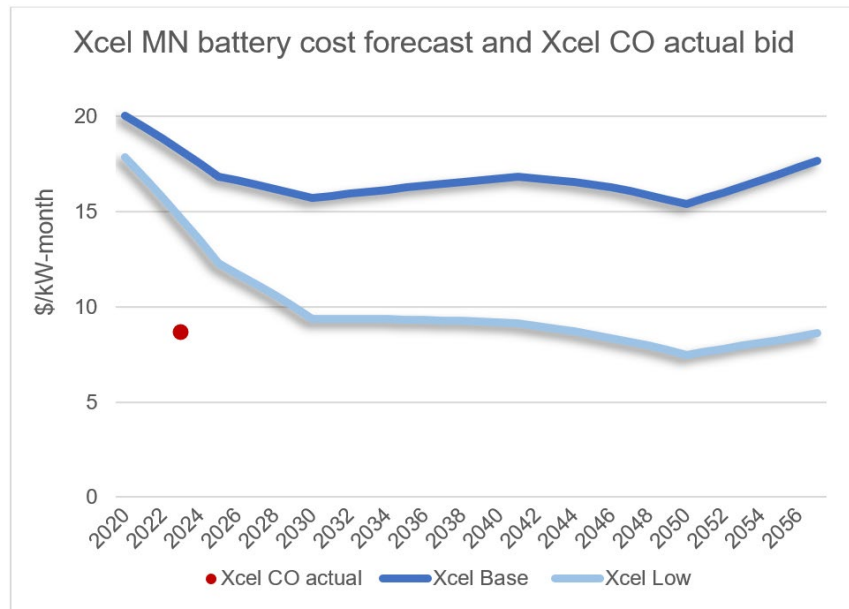


Figure 2. Xcel Base and Low battery cost forecasts compared to Xcel Colorado actual bid



Xcel's forecasting errors are not limited to this docket; the Company has consistently underestimated cost declines for new technologies in its resource planning analyses. For example, in its 2013 Sherco Life Cycle Management Study, the Company's Base solar price assumption

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was \$125/MWh.³⁸ Less than a year later, the Company issued a request for proposals (“RFP”) for solar projects that produced a bid with a levelized cost of [TRADE SECRET DATA BEGINS
TRADE SECRET DATA ENDS], which was below even the lowest solar cost scenario used in that docket.³⁹ Similarly, in its last IRP, Xcel modeled wind costs at roughly \$30/MWh with the PTC and \$50 without.⁴⁰ The next year the Company issued a wind RFP and received PPA bids with levelized costs under [TRADE SECRET DATA BEGINS
TRADE SECRET DATA ENDS] and build-own-transfer bids with levelized costs under [TRADE SECRET DATA BEGINS
TRADE SECRET DATA ENDS], both of which are well below even the lowest wind cost scenario used in the IRP.⁴¹

The record in this docket shows that a properly-sized solar-plus-storage resource will likely be the lowest-cost option to meet customers’ needs. When the CEOs reduced the solar and battery storage price forecasts and gave EnCompass the ability to select solar-plus-storage hybrid projects, the model selected hybrid projects over the Sherco CC. This is especially noteworthy considering that the solar and battery costs used by the CEOs are still higher than the bids Xcel received in Colorado. This suggests that the customer savings from procuring solar-plus-storage projects rather than the Sherco CC will be even larger than the CEOs project.

³⁸ *In the Matter of Xcel Energy's Sherco Life Cycle Management Study/2014 Integrated Resource Plan*, Docket No. E-002/RP-13-368, Xcel Energy Life Cycle Management Study for Sherburne County (Sherco) Generating Station Units 1 and 2 at B-6 (July 1, 2013) (eDocket No. [20137-88744-01](#)).

³⁹ *In the Matter of Xcel Energy's Petition for Approval of a Solar Portfolio to Meet Initial Solar Energy Standard*, Docket No. E-002/M-14-162, Petition at 9 (Oct. 24, 2014) (eDocket No. [201410-104139-02](#)).

⁴⁰ *In the Matter of Xcel Energy's 2016–2030 Integrated Resource Plan*, Docket No. E-002/RP-15-21, Initial Filing—Appendix J at 33 (Jan. 2, 2015) (eDocket No. [20151-105859-02](#)).

⁴¹ *In the Matter of the Petition of Xcel Energy for Approval of the Acquisition of Wind Generation from the Company's 2016–2030 Integrated Resource Plan*, Docket No. E-002/M-16-777, Supplement at 40 Table 6 (Mar. 16, 2017) (eDocket No. [20173-129927-01](#)).

B. The Commission Should Ensure that Xcel Uses a Procurement Process that Allows for Robust Bidding.

While the record demonstrates that solar-plus-storage resources are the lowest-cost option to meet customers' needs, the Commission should take steps to ensure that Xcel conducts a robust bidding process to secure the best price. On pages 91–97 of its Initial Comments, the Department provided an overview of the two-track bidding process for competitive resource procurement that the Commission has developed over the last two decades. The Track 1 process has been used when Xcel does not intend to submit a proposal for a Company-owned project, and the Modified Track 2 process has been used when Xcel does intend to submit a proposal. As the Department noted, this two-track bidding process “has worked well when the process is followed.”⁴²

However, Xcel's recent Sherco Solar bidding process illustrates the problems that can arise when the process is not followed. For the Sherco Solar project, Xcel purported to use the Modified Track 2 process, which is intended to spur competition and, ultimately, reduce costs for customers. However, the Company placed several restrictions on the bidding process, and as a result it received just two bids from outside parties. One was incomplete and removed from consideration almost immediately, and the other was “non-conforming” and was eliminated in the “Threshold Review” phase.⁴³ Thus, the only project that actually advanced to the “Key Parameters Review and Scoring” phase was Xcel's own submission. Moreover, Xcel's proposed project has an installed cost that is well above the national average for utility-scale solar projects, and a levelized cost that is [TRADE SECRET DATA BEGINS TRADE SECRET DATA ENDS] higher than the 25th percentile solar PPA price in Minnesota in Q1 2021.⁴⁴ To make matters

⁴² Department Comments at 98 (Feb. 11, 2021) (eDocket No. [20212-170853-01](#)).

⁴³ *In the Matter of Xcel Energy's Petition for Approval of the Sherco Solar Project*, Docket No: E002/M-20-891, Petition Sherco Solar Project at 33–34 (Apr. 12, 2021) (eDocket No. [20214-172812-01](#)).

⁴⁴ *Id.* at 5.

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worse, Xcel also disregarded the Commission's requirement to file a contingency plan to address the potential for the bidding process to fail.⁴⁵ By any measure, the Sherco Solar procurement process was a failure.

Because of these past issues, the OAG recommends modifications to Xcel's bidding process avoid similar results in the next procurement. Specifically, the OAG recommends that the Commission require Xcel to provide, within 90 days of the Order in this docket, a proposal for a competitive bidding process to procure approximately 700 MW (UCAP) of solar-plus-storage projects in 2027. In this filing, Xcel should indicate whether it intends to submit one or more proposals for Company-owned projects.

At minimum, Xcel's proposed process should include the following components:

- A list of potential independent auditors to oversee the bidding process and evaluate the proposals;
- The criteria that the independent auditor will use to evaluate proposals;
- The proposed text of the request for proposals;
- The proposed timeline for the issuance of the request for proposals, the allowed response time, the date upon which Xcel will submit its self-build proposal (if applicable), and the date upon which the independent auditor will submit its report to the Commission detailing the bid results;
- Confirmation that the request for proposals will be published publicly and open to any interested developer;

⁴⁵ *In the Matter of Xcel Energy's 2016–2030 Integrated Resource Plan*, Docket No. E-002/RP-15-21, Order Approving Plan with Modifications and Establishing Requirements for Future Resource Plan Filings at 11, Order Point 5c (Jan. 11, 2017) (eDocket No. [20171-128000-01](#)).

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- Confirmation that there will be no geographic limitations on the location of proposed projects; and
- A contingency plan in the event of an unsuccessful bidding process.

CONCLUSION AND RECOMMENDATIONS

The record in this docket is clear: the Sherco CC is not in the public interest. Xcel's capacity expansion modeling is systematically biased in favor of the Sherco CC, and when these biases are rectified, the modeling clearly shows the Sherco CC will significantly increase costs for customers. The Sherco CC would also significantly increase risk for customers, including greater exposure to volatile fuel costs, expected federal regulatory policies, and potentially lower-than-forecast market sales revenues. Nothing in the Sherco CC Law alters this analysis or requires the Commission to conclude that the Sherco CC is part of a least-cost resource mix for Xcel.

The OAG recommends that the Commission modify Xcel's resource plan to remove the Sherco CC. In lieu of the Sherco CC, the OAG recommends that the Commission require Xcel to complete a competitive bidding process to procure solar-plus-storage projects. The OAG recommends that the Commission require Xcel to provide, within 90 days of the Order in this docket, a proposal for a competitive bidding process to procure approximately 700 MW (UCAP) of solar-plus-storage projects in 2027. In this filing, Xcel should indicate whether it intends to submit one or more proposals for Company-owned projects.

At minimum, Xcel's proposed process should include the following components:

- A list of potential independent auditors to oversee the bidding process and evaluate the proposals;
- The criteria that the independent auditor will use to evaluate proposals;
- The proposed text of the request for proposals;

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- The proposed timeline for the issuance of the request for proposals, the allowed response time, the date upon which Xcel will submit its self-build proposal (if applicable), and the date upon which the independent auditor will submit its report to the Commission detailing the bid results;
- Confirmation that the request for proposals will be published publicly and open to any interested developer;
- Confirmation that there will be no geographic limitations on the location of proposed projects; and
- A contingency plan in the event of an unsuccessful bidding process.

Dated: December 7, 2021

Respectfully submitted,

KEITH ELLISON
Attorney General
State of Minnesota

/s/ **Andrew Twite**

ANDREW TWITE
Rates Analyst

/s/ **Peter G. Scholtz**

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December 7, 2021

Mr. Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101

Re: *In the Matter of Xcel Energy's 2020–2034 Upper Midwest Integrated Resource Plan*
MPUC Docket No. E-002/RP-19-368

Dear Mr. Seuffert:

Enclosed and e-filed in the above-referenced matter please find both the PUBLIC and TRADE SECRET Revised Reply Comments of the Minnesota Office of the Attorney General—Residential Utilities Division (“OAG”).

The OAG is resubmitting its reply comments pursuant to the Commission’s December 6, 2021 *Order Striking Filing* in this matter. The comments have been revised to remove certain trade-secret information pertaining to Otter Tail Power Company, and to substitute publicly available information that demonstrates that Xcel’s modeling significantly overstates the cost of solar-plus-storage resources.

By copy of this letter all parties have been served. A Certificate of Service is also enclosed.

Sincerely,

/s/ **Peter G. Scholtz**

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CERTIFICATE OF SERVICE

Re: *In the Matter of Xcel Energy's 2020–2034 Upper Midwest Integrated Resource Plan*
MPUC Docket No. E-002/RP-19-368

I, JUDY SIGAL, hereby certify that on the 7th day of December, 2021, I e-filed with eDockets both the ***PUBLIC and TRADE SECRET Revised Reply Comments of the Minnesota Office of The Attorney General—Residential Utilities Division*** and served a true and correct copy of the same upon all parties listed on the attached service list by e-mail, electronic submission, and/or United States Mail with postage prepaid, and deposited the same in a U.S. Post Office mail receptacle in the City of St. Paul, Minnesota.

/s/ Judy Sigal

JUDY SIGAL

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