MINNESOTA
PUBLIC UTILITIES COMMISSION

Staff Briefing Papers

Meeting Date	**September 21, 2023**		**Agenda Item **4**
Company	Xcel Energy (Xcel or the Company)		
Docket No.	E002/M-22-403		
	In the Matter of Xcel Energy's 2022 Solar RFP Portfolio		
Issues	Should the Commission approve the Sherco Solar 3 Project and Apple River Solar Power Purchase Agreement?		
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✓ **Relevant Documents**	**Date**
Xcel Energy, Initial Filing (Public and Trade Secret)	July 20, 2023
Xcel Energy, Sherco Solar III Self-Build Proposal (Public and Trade Secret)	August 25, 2023
Xcel Energy, Petition (Public and Trade Secret)	May 5, 2023
Xcel Energy, Attachment C (Parts 1-17)	May 5, 2023
Xcel Energy, Attachment E	May 12, 2023
Xcel Energy, Errata (Public and Trade Secret)	May 30, 2023
Xcel Energy, Supplement – Land Rights Acquisition	July 14, 2023
Nokomis Energy, Comments	July 17, 2023
IUOE Local 49 and NCSRC of Carpenters, Comments	July 21, 2023
Department of Commerce, Comments (Public and Trade Secret)	July 21, 2023
LIUNA, Reply Comments	August 3, 2023

✓ Relevant Documents	Date
Xcel Energy, Reply Comments	August 3, 2023
Xcel Energy, Supplemental Information (Public and Trade Secret)	August 18, 2023

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BACKGROUND

I. Summary of 2022 Solar Portfolio

A. Selected Projects

On May 5, 2023, Northern States Power Company, d/b/a Xcel Energy (Xcel or the Company), filed a petition (Petition) requesting the Commission, among other things, find that the Sherco Solar 3 Project and the Apple River Solar Power Purchase Agreement (PPA) are in the public interest.

The projects were bid in response to Xcel's August 1, 2022, request for proposals of standalone solar and solar-plus-storage hybrid resources (2022 Solar RFP), which sought at least 900 megawatts (MW) of solar capacity to fulfill a resource need identified in the Company's 2020-2034 Integrated Resource Plan (IRP).[1] Xcel anticipates that Sherco Solar 3 and Apple River Solar can achieve commercial operation by November 2025[2] and December 2025, respectively.

While the response to the RFP was robust, due to recent solar market dynamics and uncertainty, many bidders were unable to offer low-cost projects with firm pricing structures. As a result, Xcel received a limited number of "qualified bids."[3] In an effort to match qualified bids with the 900 MW sought, Xcel continued negotiations with developers to see if they could offer revised pricing. However, only National Grid Renewables (NG Renewables) was able to reduce the bid price so that it would be at or below the Xcel-imposed $70/MWh threshold. To reach the targeted amount of capacity interconnected at Sherco, Xcel increased the size of the Sherco Solar 3 project from 150 MW as originally bid to 250 MW.

Table 1 is a brief summary of the two selected projects, although the levelized cost of energy (LCOE) for each project was designated as trade secret information.

Table 1: Selected Solar Projects

Project Name	Developer	Size (MWac)	Interconnection	Type	Location	LCOE ($/MWh)
Apple River	National Grid Renewables	100	Transmission	PPA	Polk County, WI	**[PROTECTED DATA EXCISED]**
Sherco Solar 3	Xcel Energy	250	Transmission	Self-Build	Clear Lake Township, MN	
TOTAL		**350 MW**				

B. Sherco Solar 3

Sherco Solar 3 is a self-build, 250 MW project to be located on an approximately 1,750-acre site

[1] Docket No. E002/RP-19-368
[2] On August 8, 2023, in Docket No. E002/GS-23-217, Xcel filed a site permit application for Sherco Solar 3. The site permit anticipates an in-service date by the end of 2025.
[3] "Qualified" bids means a project that has passed the completeness review and threshold review stages of the evaluation.

primarily in Clear Lake Township, Minnesota. Sherco Solar 3 will be located to the west of Sherco Solar 1 and approximately five miles from that project's collector substation. It will include the installation of approximately 550,000 solar panels, approximately 50 miles of underground collection feeder lines, electrical collection systems, access roads, collector substations, and other supporting solar farm infrastructure. Xcel is the project developer.

According to the Company, primary construction activities will occur in 2024 and 2025, with engineering and most procurement occurring in 2023. Additional project details and socioeconomic benefits of Sherco Solar 3 are shown in Table 2.

Table 2: Sherco Solar Project Details[4]

Nameplate Capacity	250 MWac
Developer	Xcel Energy
Project Location	Clear Lake Township, Minnesota
Project Structure	Self-build
Anticipated COD	November 2025
Project Life	35 years
LCOE ($/MWh)	**[TRADE SECRET]**
Net Capacity Factor	**[TRADE SECRET]**
Estimated construction jobs created	95 (in addition to Sherco Solar 1 & 2)
Estimated landowner payments	$90 million
Estimated local tax payments	$20 million

C. Apple River Solar

Apple River Solar is a 100 MW project to be located in Polk County, Wisconsin. NG Renewables is the project developer, and NG Renewables executed the project's Generator Interconnection Agreement (GIA) on January 6, 2023.

The PPA is a fixed-rate PPA with a 20-year term, and it ensures that Xcel receives all energy, capacity, and environmental attributes.

Notably, Xcel explained that between 2021 and 2022, in an effort to lessen risk and facilitate timely development of projects, Xcel made revisions to its "model PPA," such as:

- Developers must achieve certain milestones critical to projects' success, referred to as "Critical Path Development Milestones."

- Xcel eliminated compensable curtailments, so bidders must now assume the curtailment risks that had previously been borne by Xcel.

[4] Table 3 of Petition, p. 49.

- Developers must certify they are compliant with, and have adopted and implemented policies pertaining to, Forced Labor Laws, including the Uyghur Forced Labor Prevention Act, or UFLPA.

The Apple River PPA incorporates these updates to the model PPA.

Table 3 is an overview of Apple River Solar, which includes project details and NG Renewables' estimates of socioeconomic benefits.

Table 3: Apple River Project Details[5]

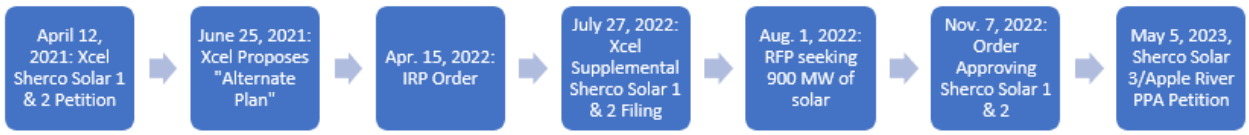
Nameplate Capacity	100 MWac
Developer	National Grid Renewables
Project Location	Polk County, Wisconsin
Project Structure	PPA
Anticipated COD	December 2025
Contract Term	20 years
Fixed or escalating price	**[TRADE SECRET]**
Levelized price	**[TRADE SECRET]**
Committed Energy	**[TRADE SECRET]**
Approximate Year 1 NCF[6]	**[TRADE SECRET]**
Estimated construction jobs	150
Estimated landowner payments	$19.2 million
Estimated local tax payments	$4 million

Importantly, since the Apple River Solar Project is located in Wisconsin, Xcel's Wisconsin Operating Company, NSPW, is the party to the Apple River PPA. NSPW will seek project approval of the project from the Public Service Commission of Wisconsin. Therefore, the Petition does not ask for specific approval of the PPA from the Minnesota Commission; rather, Xcel requests the Commission make an overall finding that the "portfolio" (i.e., Sherco Solar 3 and the Apple River PPA) is in the public interest.

II. Related Dockets

Sherco Solar 3 is an expansion of the 460 MW Sherco Solar project that was approved in Docket No. 20-891; therefore, Xcel refers to the previously-approved solar project at Sherco as "Sherco Solar 1 and 2." Below is a timeline of how Sherco Solar 1 and 2, the IRP, and the instant proceeding unfolded over time. Note that Sherco Solar 1 and 2 were proposed as Xcel's IRP was ongoing, and the 2022 Solar RFP was separate and distinct from the solar RFP which led to Sherco Solar 1 and 2.

[5] Table 8 of Petition, p. 45.
[6] NCF is Net capacity factor.



A. Integrated Resource Plan

Xcel's 2015 IRP (Docket No. 15-21) proposed to retire the coal-fired Sherco 2 and 1 units in 2023 and 2026, respectively. The Commission approved Xcel's 2015 IRP on January 11, 2017.

Xcel's subsequent IRP, the Company's 2020-2034 IRP filed on July 1, 2019, initially proposed a 760 MW natural gas-fired power plant at the Sherco site to replace the capacity and energy and reutilize the interconnection rights; however, during the proceeding, Xcel withdrew those plans and proposed instead to reuse the site's interconnection rights with solar resources.

Xcel's June 25, 2021, Reply Comments unveiled the "Alternate Plan," which proposed new transmission lines (or "gen-tie lines") to connect (1) a combination of solar, wind, and firm dispatchable resources to the Sherco interconnection and (2) solar resources at the Allen S. King coal plant interconnection, which will also be retired. After further refinement of the plan in coordination with various stakeholders, Xcel proposed the expansion plan shown in Table 4. Note that "generic" means resources that were selected as economic resources to meet overall system needs but do not have a defined location. Also, the values below present EnCompass results, which selected solar units in 50 MW increments. Therefore, there is a small difference in the MWs of solar EnCompass selected versus the available interconnection rights at Sherco.

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Table 4: Alternate Plan Resource Additions through 2030 (MW)[7]

Red italics indicates Company-owned

Resource	2024	2025	2026	2027	2028	2029	2030*	Total	*Total Company-Owned*	Total Other
Sherco Tie Line										
Solar	*700*	*150*	-	*600*	-	-	-	**1,450**	***1,450***	**0**
Wind	-	-	-	-	*200*	200	950	**1,350**	***200***	**1,150**
Firm dispatchable	-	-	-	-	-	*374*	-	**374**	***374***	**0**
King Tie Line										
Solar	-	-	-	-	*150*	*400*	*100*	**650**	***650***	**0**
Generic										
Solar	-	450	-	-	-	-	-	**450**		**450**
Wind	-	-	-	-	-	-	-	**-**		
Storage	-	-	-	-	-	-	200	**200**		**200**
Firm dispatchable	-	-	-	374	-	-	-	**374**		**374**
Black Start – Firm dispatchable	-	*60*	*259*	-	-	-	-	**319**	***319***	**0**
Total	**700**	**660**	**259**	**974**	**350**	**974**	**1,250**	**5,167**	***2,993***	**2,174**
Total Company-Owned	***700***	***210***	***259***	***600***	***350***	***774***	***100***	***2,993***		
Total Other	**-**	**450**	**-**	**374**	**-**	**200**	**1,150**	**2,174**		

*The Alternate Plan includes an additional firm dispatchable resource online in 2030, but Xcel did not seek specific approval for that Unit, so it is not reflected in this table.

The next table condenses the information above by including the same solar resources but excluding non-solar resources. This highlights Xcel's solar acquisition plan through 2030. This shows roughly 1,300 MW of solar units (selected in EnCompass) by 2026.

Table 5. Solar Resources in Xcel's IRP Alternate Plan, 2024-2030

Solar Resource	2024	2025	2026	2027	2028	2029	2030	Total
Sherco Tie Line	700	150	-	600	-	-	-	1,450
King Tie Line	-	-	-	-	150	400	100	650
Generic	-	450	-	-	-	-	-	450
Total by Yr.	700	600		600	150	400	100	2,550

Order Point 2.A.5. of the Commission's April 15, 2022, Order (IRP Order) authorized Xcel to acquire (a) company-owned solar to fully reuse the Sherco 2 interconnection (while recognizing that Sherco Solar 1 and 2 had not yet been approved) and (b) 600 MW of additional, "generic" solar (i.e., with a specific location) by 2026:[8]

[7] Table 1 of January 26, 2022 Letter, Docket 19-368

[8] Again, note that EnCompass selected 1,300 MW of solar units by 2026, which were in 50 MW increments. The Commission's order specifies the total interconnection rights made available by retiring Sherco Unit 2.

5) By 2026 Xcel shall acquire –

A) **Approximately 720 megawatts of company-owned solar-powered generators** to fully reutilize the interconnection capacity to be made available following the retirement of the Sherco Unit 2—**460 MW of which could come from the proposed Sherco Solar project** if approved by the Commission—and

B) **An additional 600 MW** of solar resources unconstrained by interconnection location or ownership. *(Emphasis added by Staff.)*

In summary:

- Order Point 2.A.5. of the Commission's IRP order approved approximately 1,300 MW of solar by 2026.

- Sherco Solar 1 and 2 (460 MW) and Sherco Solar 3 (250 MW) will collectively meet the 710 MW of interconnection rights that will become available upon retiring the Sherco 2 coal unit;[9] and

- Apple River Solar (100 MW) will only partially fill the 600 MW of unconstrainted (i.e., generic) solar in identified in Order Point 2.A.5. Xcel discusses the possibility of acquiring additional solar projects in the future to meet this requirement.

B. Sherco Solar 1 and 2

1. Project Expansion

Sherco Solar 1 and 2 is a joint development between NG Renewables and Xcel for a solar project located adjacent to the Company's Sherco Generating Station in Becker, Minnesota. To develop the project, Xcel acquired a 230 MW site west of the existing Sherco Generating Station from NG Renewables, which has been referred to as the West Block. In addition, Xcel will develop another 230 MW solar project on land to the east for which Xcel holds leases. This is the East Block. The map below, which is from Xcel's April 12, 2021, petition in Docket No. 20-891, shows the Sherco Solar 1 and 2 site boundary.

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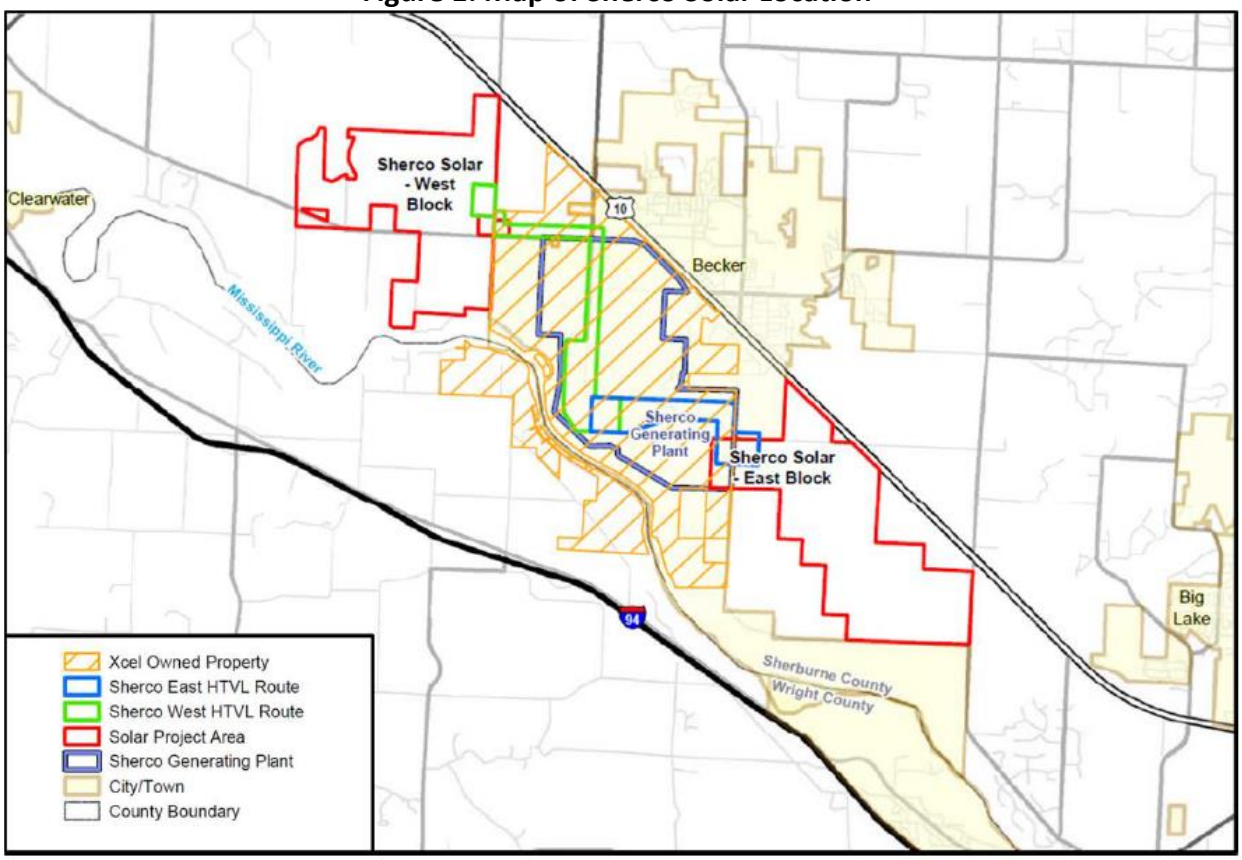
[9] The Petition noted that interconnection rights available from Sherco Unit 1 and 2 were inadvertently conflated in the IRP. Retiring Sherco 2 will open 710 MW of interconnection rights in 2023, and retiring Sherco 1 in 2026 will open another 720 MW. These values were switched around in the IRP.

Figure 1: Map of Sherco Solar Location



Together, Sherco Solar 1 and 2 will provide 460 MW of solar capacity, which Xcel expects to be in-service by Q4 of 2024. The Commission approved Sherco Solar 1 and 2 on November 7, 2022.

2. Sherco Solar 1 and 2 Cost Cap

In initial rounds of comments in Docket No. 20-891, the Department, Office of the Attorney General, and Institute for Local Self-Reliance raised concerns that the project costs were unreasonably high because the RFP limited competition by restricting bid parameters to company-ownership at the Sherco site. Xcel responded by stating that the project's LCOE was reflective of the broader solar market, and Xcel could prove this in a future solar RFP that the Company was planning to issue soon after approval of its IRP.

To assuage parties' concerns about the cost, Xcel proposed a cost cap for Sherco Solar 1 and 2 based on the results of the forthcoming 2022 Solar RFP. Xcel was confident that the 2022 Solar RFP would confirm that Sherco Solar 1 and 2 is reasonably priced, and the cost cap would ensure that ratepayers would be protected. Xcel proposed two scenarios for the cost cap:

1. If the 2022 Solar RFP <u>does not</u> yield enough projects to meet the targeted need, then rider recovery is capped at the estimated $690.1 million, not including AFUDC, or

2. If there <u>are</u> sufficient projects from the RFP to meet the targeted, then rider recovery

> would be capped at the lower of (1) $690.1 million or (2) the highest-priced completed project selected in the RFP (on a $/kW basis).

In the Petition, Xcel stated that:

1. the 2022 Solar RFP did not yield enough projects that passed the threshold review stage in order to meet the targeted need, and

2. Sherco Solar 1 and 2 would have been the lowest-cost project on an LCOE basis in the 2022 Solar RFP.

Therefore, Xcel argued that the established cost cap for Sherco Solar 1 and 2 is $690.1 million, not including AFUDC.

Xcel's lengthier response stated that:

> per the terms of the November 7, 2022 Order, $690.1 million, not including AFUDC, will be the established cost cap of the Sherco Solar 1 & 2 project. The bids for all build-transfer or self-build projects received in response to our RFP were higher cost on a $/kW basis than the forecasted capital cost for the Sherco Solar 1 & 2 project. Further, Sherco Solar 1 & 2 would also have been the lowest cost project on an LCOE basis in comparison to projects passing completeness and threshold evaluation in this RFP. Therefore, rider recovery for Sherco Solar 1 and 2 is capped at $690.1 million – the cost presented in our July 27, 2022 filing. Moreover, the number of projects selected for shortlisting totaled less than 260 MW of Company-owned projects interconnecting at Sherco and also less than the additional 600 MW of solar unconstrained by location.[10]

Additional decisions from the November 7, 2022, Order include:

- Approval of Xcel's proposed approach of recovering Sherco Solar through the renewable energy standard (RES) rider.

- Cost recovery was limited to the Minnesota jurisdictional allocators approved by the Commission.

- Xcel was required to maximize the benefits to ratepayers of the Inflation Reduction Act and the Infrastructure Investment and Jobs Act.

C. Sherco Storage Pilot (Docket No. 23-119)

On March 6, 2023, Xcel requested approval of a 10 MW/1,000 MWh long-duration energy storage pilot project at the Sherco facility site. The pilot project will feature Form Energy's iron-

[10] Petition, p. 53.

air storage technology, which is a 100-hour, multiday battery. Xcel explained the pilot project has numerous benefits:

- Use of iron technology instead of rare earth mineral;
- Longer-duration than lithium-ion batteries;
- 15-20 union jobs during construction;
- $9 million in local tax revenue; and
- 10% bonus tax credit in addition to the 30% ITC for siting the project in an "energy community."[11]

Xcel stated that the battery will be an important opportunity to test the integration of variable renewable energy and manage peak demand, especially during multi-day periods with low renewable generation and high loads, such as the January 2019 polar vortex.[12] On the opposite end of the spectrum, Xcel explained the pilot will allow the Company to study whether batteries can help in times of grid congestion when there is excess renewable energy on the system.[13] The Commission approved the Sherco Storage Pilot in its August 1, 2023, Order.

III. Resource Acquisition

A. Modified Track 2 Process

Like Sherco Solar 1 and 2, Sherco Solar 3 and Apple River Solar were selected using the Commission's approved Modified Track 2 Process.[14] This competitive bidding process was described as follows in the Commission's IRP Order:

> [U]nder Xcel-Bid Auditor/Modified Track 2, Xcel must submit its own proposals a day before any of the bids from other developers are due. Xcel then evaluates all the proposals received based on an established list of factors, and identifies projects to pursue in negotiations. Thereafter, Xcel reports to the Commission its own analysis and recommendations regarding the bids and the results of a third-party auditor's [Independent Auditor, or IA] report on the bidding process, among other topics.[15]

B. Comparison of the 2021 of 2022 Solar RFPs

As noted, the Sherco Solar 1 and 2 project was selected in Xcel's 2021 Solar RFP, and Sherco Solar 3 and Apple River Solar were selected as part of its 2022 Solar RFP, which followed the Company's IRP decision. While both RFPs employed the Commission's approved Modified Track 2 bidding process, Table 6 shows that there are notable differences:

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[11] Xcel, Petition, Docket 23-119, pp. 2-3
[12] Xcel, Petition, Docket 23-119, p. 3
[13] Xcel, Petition, Docket 23-119, p. 4
[14] In the Modified Track 2 process, Xcel takes the following steps: (1) Xcel issues the RFP; (2) submits its self-build project, if applicable, on the day before the RFP response deadline; (3) evaluates the bids and selects projects; (4) completes contract negotiations for selected projects; and (5) makes a filing to the Commission.
[15] Docket No. 19-368, Commission order, pp. 5-6.

Table 6: Comparison of RFP Process

	2021 Solar RFP	2022 Solar RFP
Issued	January 4, 2021	on August 1, 2022
RFP Target	Total capacity of 500 MW or greater	900 MW by the end of 2025, including up to 300 MW to replace remaining Sherco 2 interconnection rights
Minimum Size	75 MW or greater, utilizing Sherco Interconnection	>5 MW
Location	Sherco interconnection only	300 MW Sherco POI, 600 MISO Zone 1
Project Types	Standalone solar only	Standalone solar Solar-plus-storage hybrids
Connection	Transmission-interconnected	Distribution- and transmission-interconnected projects
Contract type	Self-build/ build-transfer only	PPA/Self-build/BT
COD	December 31, 2024	December 31, 2025
Bids responses	3 bids, including Xcel's self-build, and the 2 other bids "were nonconforming to the RFP requirements."[16]	80 proposals submitted for 43 projects from 17 bidders, totaling 2,749 MW of solar and 940 MW/3,120 MWh of storage.

As shown in the table, the 2022 Solar RFP received a robust initial response; however, due to critical issues with many of the bids, only 24 bids passed to final evaluation.

C. Sherco-Interconnection Projects vs. Additional Projects

Order Point 2.A.5 of the IRP Order required Xcel to acquire both solar to reutilize interconnection capacity at Sherco Unit 2 and an additional 600 MW of solar "unconstrained by interconnection location or ownership." Table 7 summarizes how the RFP defined project eligibility for Sherco-interconnected projects and generic projects.

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[16] Docket No. 20-891, Xcel Sherco Solar Petition (April 12, 2021), p. 33.

Table 7: RFP Eligible Project Types[17]

Purpose	Sherco Interconnection Reuse	Additional Resource Capacity Needs
Geography	MISO Zone 1, reutilizing the Company's existing Sherco interconnection rights	• MISO Zone 1 (transmission-interconnected assets), or • NSP distribution system (distribution interconnected assets)
Resource Types	Solar, Solar + Storage	Solar, Solar + Storage
Approximate MW Target	300 MWac	600 MWac
Minimum Size per Project Site	>5 MWac	>5 MWac
Project Structure	Build Transfer, Company Self-Build	PPA, Build Transfer, Company Self-Build
Timing	COD by December 31, 2025	COD by December 31, 2025

While the RFP sought distribution-interconnected projects and solar-plus-storage hybrids to compete against transmission-interconnected, standalone solar projects – which Xcel characterized as a "first of its kind" RFP – none ultimately passed the threshold review. Xcel explained that the two core objectives of the 2022 RFP were to (1) reuse existing interconnection rights at the Sherco site and (2) meet time-sensitive capacity needs at the best prices for Xcel's customers.[18] According to Xcel, the distribution-interconnected bids and solar-plus-storage bids did not meet these objectives. Common reasons were cost and financing risk, permitting and/or site control risk, and interconnection cost and uncertainty.

PETITION

I. Summary of Key Issues

A. Bid prices were generally higher than the assumptions in the IRP

Importantly, the 2022 RFP bids were higher in price than the generic solar price assumptions modeled in the IRP. Xcel claimed that "the present reality is that our RFP results and other external market reports demonstrate that the generic solar costs used in the resource plan modeling are not broadly achievable in the current market."[19] As evidence that the bids were in line with the broader solar market, Xcel cited PPA prices in MISO, which Xcel stated have increased by over 70% since Xcel's IRP was approved.

Xcel attributed increases in solar costs to inflation, supply chain constraints, high labor costs, and rising interest rates that increase borrowing costs for developers. Xcel recognized the benefits provided by the Inflation Reduction Act (IRA), which passed the U.S. Congress on

[17] Table 3 of Petition, p. 24
[18] Petition, p. 34.
[19] Petition, p. 18.

August 16, 2022 – shortly after Xcel issued its RFP – but at the same time, the IRA increased the demand for solar resources, which put further upward pressure on solar prices. According to Xcel, for many projects, "tax credits are not currently fully offsetting price increases driven by inflation and other market challenges."[20]

B. Contingency Plan

Because the RFP did not result in the amount of MWs sought, the Petition described a contingency plan in which Xcel will continue to monitor market conditions and work with bidders whose projects were deemed viable but not shortlisted. Depending on the outcome of these discussions, Xcel may file a petition for Commission approval of cost-effective projects in the future.

Xcel described its contingency plan as follows:

1. Seek backup bids to fulfill the outstanding capacity need.

2. Potentially pursue additional projects.

3. Enter into contracts to retain necessary, existing capacity on the system.

4. Conduct an RFP for development transfer projects for the King gen-tie line end point and the Minnesota Energy Connection (Sherco-to-Lyon County gen-tie line).[21]

C. EnCompass Modeling

1. Increases to solar prices required modeling changes

Due to recent increases in solar prices, Xcel had to deviate from its traditional EnCompass analysis in resource acquisition petitions, in which proposed resources are compared a base case reflecting the approved IRP. Since, according to Xcel, it was "no longer appropriate here to compare the cost of real projects to the cost of generic resources,"[22] Xcel modified the base case by removing near-term generic solar to create a capacity deficit, and in its place, EnCompass was only allowed to select capacity purchases.[23]

Xcel still used the Alternate Plan as the baseline capacity expansion plan, but Xcel determined that it would not make sense to compare the 2022 Solar Portfolio to generic solar approved in the Alternate Plan. Because Xcel's capacity need must be filled by 2026, which is only about two years away, no other resource alternative could realistically meet this imminent need.

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[20] Petition, p. 8.

[21] As Staff will discuss in the Staff Analysis section, this is already underway in Docket No. 23-342.

[22] Petition, p. 56.

[23] Cost assumptions for this alternative capacity purchase are based on MISO's current Cost of New Entry (CONE) pricing, reflecting a capacity alternative that may be available in the absence of the portfolio projects.

To calculate the cost impact of the projects, Xcel compared the net present value of scenarios with Sherco Solar 3 and Apple River Solar, both individually and together as a portfolio, to a base case which allowed only capacity purchases to meet near-term capacity needs. Production cost modeling was performed on a Present Value Revenue Requirements (PVRR) and Present Value Societal Cost (PVSC) basis.[24] Xcel conducted a sensitivity analysis testing high and low fuel/market prices and carbon externality and regulatory costs.

Overall, Xcel's EnCompass analysis found:

- On a PVRR basis, the portfolio increased system costs by $18 million.
- On a PVSC basis, the portfolio lowered system costs by $64 million.
- Apple River Solar increased system costs by $19 million on a PVRR basis, but lowered system costs by $5 million on a PVSC basis.
- Sherco Solar 3 lowered system costs on both a PVRR and PVSC basis.

2. May 30, 2023, Errata and Tables and Figures of EnCompass Results

On May 30, 2023, Xcel filed an Errata with updated modeling results, which is reflected in the bullet points above and tables/figures below. This is because after Xcel filed the Petition, the Company "discovered a discrepancy between the EnCompass modeling inputs and the Sherco Solar 3 net capacity factor presented in the Petition."[25] Therefore, the EnCompass results provided in these briefing papers uses values from the Errata, not the Petition.[26]

Replacement Tables 10-12 of the Errata summarize Xcel's EnCompass results. Table 8 below shows the expected PVSC/PVRR impacts of the portfolio, along with Xcel's sensitivity analysis. The portfolio was cost-effective under all modeling runs except the PVRR (no-CO_2 costs) case.

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[24] "Present value of societal cost," or PVSC, is the net present value of all of a scenario's costs, including the regulatory cost of carbon and all externality costs. "Present value revenue requirements," or PVRR, are all of a scenario's costs but without a regulatory cost of carbon or externality costs.

[25] Xcel Errata, p. 1.

[26] As Staff understands it, the EnCompass results presented in the Petition for Apple River Solar did not require an adjustment. Also, the adjustments to the modeling inputs did not change the overall conclusions for Sherco Solar 3, but they reduced the net savings in scenarios with Sherco Solar 3 by roughly $4-6 million over the modeling period.

Table 8: PVSC and PVRR Savings Resulting from the Selected Portfolio[27]

Present Value Measure	Cost / (Savings) ($2023 millions)
PVSC, (High Externality Costs through 2024, High CO_2 Regulatory Costs)	($64)
PVRR (No CO_2 Costs)	$18
Sensitivities	
Low Gas, Coal, and Market Prices	($24)
High Gas, Coal, and Market Prices	($110)
Mid Externality, Mid Regulatory Cost of CO_2	($33)

Replacement Tables 11 and 12 of Xcel's May 30 Errata, combined in Table 9 below, show the PVSC/PVRR of each project individually.[28] Sherco Solar 3 is the most cost-effective of the two projects and shows economic benefits both on a PVSC and PVRR basis. The Apple River project shows benefits on a PVSC basis.

Table 9: Base PVSC & PVRR Costs/(Savings) By Project[29]

Present Value Measure	Cost / (Savings) ($2023 millions)
Table 11, Apple River	
Apple River, PVSC (w/ CO_2)	($5)
Apple River, PVRR (No CO_2)	$19
Table 12, Sherco Solar 3	
Sherco Solar 3, PVSC (w/ CO_2)	($60)
Sherco Solar 3, PVRR (No CO_2)	($2)

Figure 2 shows the annual cumulative PVSC/PVRR impact of Apple River Solar. On a PVSC basis (blue line), Apple River Solar results in relatively minor costs or savings depending on the year, but ultimately lowers system costs by $5 million. On a PVRR basis (orange line), system costs increase slightly but steadily over time, ultimately increasing system costs by $19 million.

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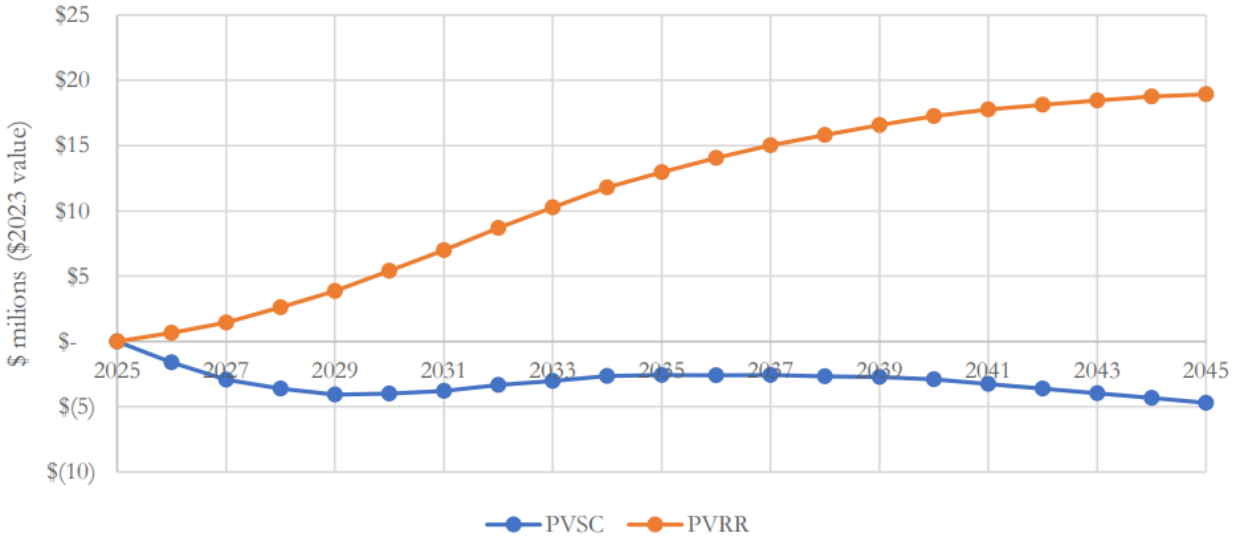
[27] Replacement Table 10 of May 30, 2023, Errata

[28] Order Point 8 states: "For solar acquisition petitions that include more than one project, Xcel shall analyze projects on an individual basis and as a total portfolio."

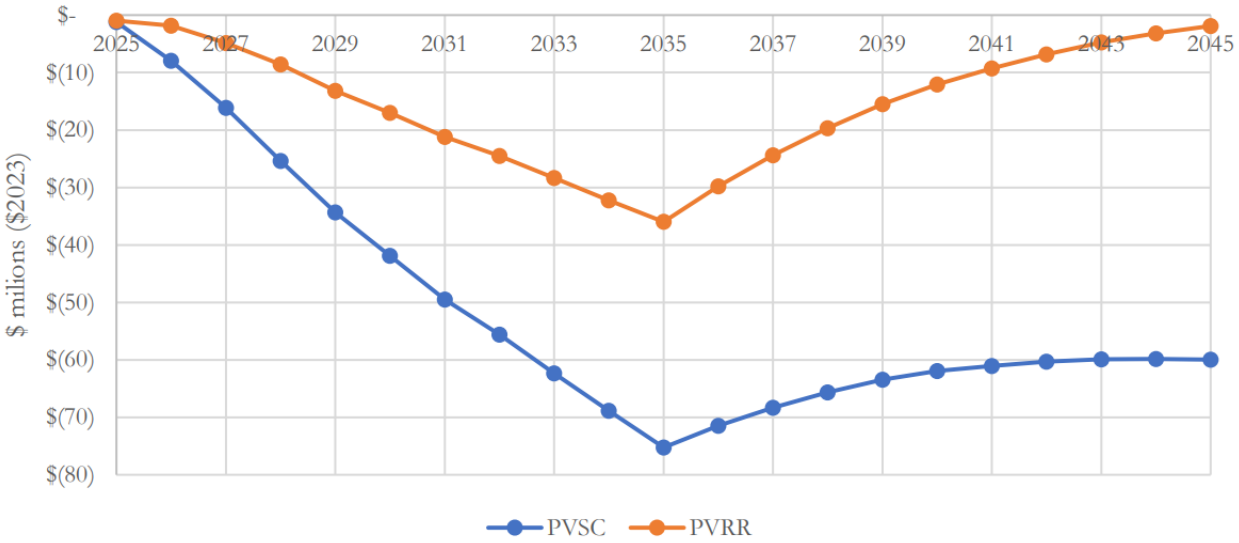
[29] Excerpts of Tables 11 and 12 of May 30, 2023, Errata

Figure 2: Annual Cumulative PVSC/PVRR Costs/(Savings) Resulting from Apple River as Comparted to the Base Case[30]



As shown in Figure 3, Sherco Solar 3 has immediate benefits due to the PTC, which continue to accrue until 2035. System costs are lowered both on a PVSC (blue) and PVRR (orange) basis.

Figure 3: Annual Cumulative PVSC/PVRR Costs/(Savings) Resulting from Sherco Solar 3 as Compared to the Base Case[31]



3. Bill Impacts

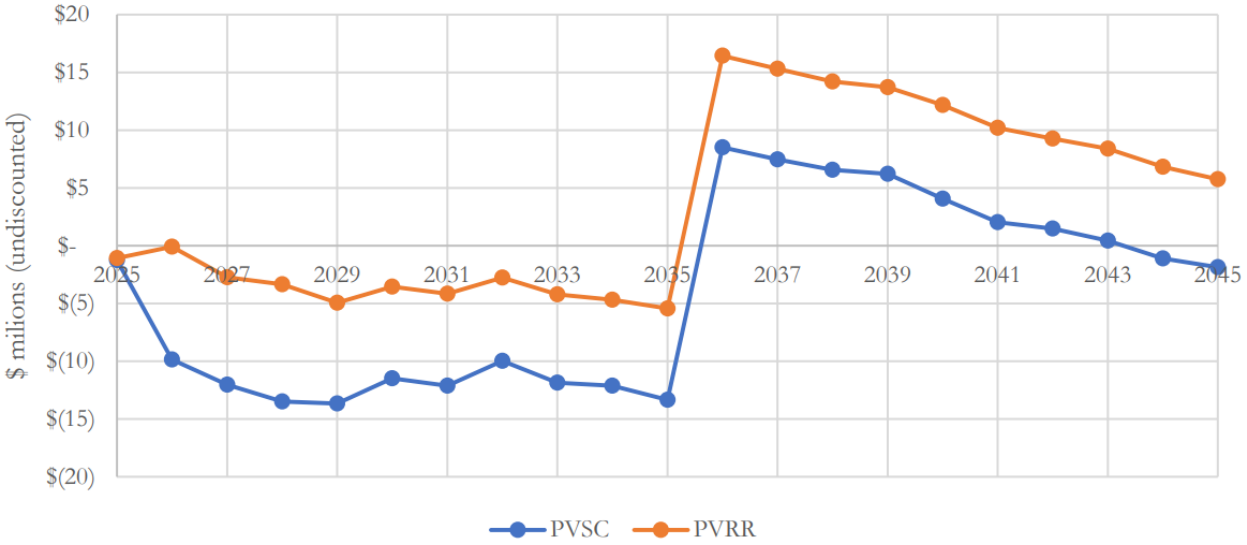
As required by the IRP Order, the Petition included a customer bill impact analysis. Figure 4 below depicts the annual revenue requirement as estimated by EnCompass. Note that Figures 2 and 3 above show the cumulative impact, whereas Figure 4 below shows the annualized

[30] Figure 8 of May 30, 2023, Errata p. 61

[31] Figure 9 of May 30, 2023, Errata, p. 61

impact. Note the significance of the PTC in the first ten years. Revenue requirements increase in 2035 after the PTC period expires, then decline afterward as Sherco Solar 3 depreciates.

Figure 4: Annual Costs/(Savings) Resulting from the Portfolio as Compared to the Base Case[32]



Xcel emphasized that if the portfolio is approved, all customers would see a bill decrease in the first ten years. Table 10 of the Petition shows the estimated monthly bill impact of the portfolio through 2030 for residential, commercial non-demand, and commercial & industrial (C&I) demand-billed customers. For a typical residential customer using 650 kWh per month, the bill impact would range from a $0.01 increase to $0.07 per month decrease from 2025 through 2030 (although Staff notes that bills may increase after 2035 once the PTC expires).

[Intentionally left blank]

[32] Figure 11 of May 30, 2022, Errata, p. 63

Table 10: Solar Portfolio Estimated Monthly Bill Impact by Class Typical Monthly Usage[33]

Year	Residential	Commercial Non-Demand	C&I Demand Billed
2023	$0.00	$0.00	$0.00
2024	$0.00	$0.00	$0.00
2025	-$0.02	-$0.03	-$1.04
2026	$0.01	$0.00	-$0.39
2027	-$0.03	-$0.07	-$2.96
2028	-$0.05	-$0.09	-$3.56
2029	-$0.07	-$0.14	-$5.13
2030	-$0.05	-$0.10	-$3.75
Typical monthly usage assumed: Residential - 650 kWh, Commercial Non-Demand – 1,000 kWh, C&I Demand Billed – 37,500. Customer kWh usage and bill impacts for C&I demand-billed customers vary significantly.			

D. MISO Resource Accreditation Changes

All of Xcel's EnCompass modeling in the IRP, RFP evaluation, and the Petition assumed an annual resource adequacy construct. However, MISO's tariff revisions relating to its seasonal construct and non-thermal capacity accreditation are, according to Xcel, "potentially significant changes that will affect [its] planning processes and obligations in the future." Moreover, Xcel stated that its needed mix of resources "will change in response to these new requirements."[34]

Xcel stated that "it is likely that solar capacity will receive nearly zero accredited capacity during the winter season because system peak hours in the winter occur in nighttime hours."[35] However, Xcel explained that its near-term need for solar has not changed, and as a summer-peaking utility, Xcel expects to gain significant accredited capacity from the projects in the summer. Xcel provided current seasonal PRMs along with solar default accreditation values for new solar resources in response to Department Information Request No. 8.

Table 11: Seasonal Unforced Capacity PRMs and Solar Default Accreditation Values for the MISO 2023/2024 Planning Year[36]

Season	PRM (%)	Solar Accreditation (%)
Summer	7.4	50
Fall	14.9	50
Winter	25.5	5
Spring	24.5	50

[33] Table 13 of May 30, 2023, Errata, p. 65
[34] Petition, p. 21.
[35] Petition, p. 22.
[36] Table DOC 8-1, Department Comments, Attachment 1, p. 1 (PDF p. 27)

Given current uncertainty, Xcel believes it is appropriate to review the projects under an annual construct. Xcel will continue to develop reasonable assumptions to use in future filings:[37]

> As the seasonal construct and our resources' accreditation becomes clearer, and non-thermal accreditation approaches move forward, we are working to establish appropriate assumptions and parameters in the EnCompass model to evaluate future resource needs on a seasonal basis.[38]

E. Summary of Financial Issues

1. Recovery through the RES Rider

Discussed on pages 72-73 of the Petition, Xcel requests recovery of Sherco Solar 3 project costs for the Minnesota jurisdiction through the RES Rider. RECs generated by Sherco Solar 3 will help achieve compliance with Minnesota's expanded RES statute, Minn. Stat. § 216B.1691 subd. 2a, which recently increased from 30% and now requires 55% renewable energy by 2035.[39] Further, Sherco Solar 3 will contribute to the Solar Energy Standard (SES),[40] which requires 1.5% of retail sales in Minnesota to be generated by solar energy, with a goal of 10% by 2030.

2. Jurisdictional Cost Allocation

On May 19, 2023, Xcel filed an Advanced Determination of Prudence (ADP) for the energy and capacity associated with Sherco Solar 3 with the North Dakota Public Service Commission (NDPSC). Xcel stated that if "the regulatory outcome in North Dakota or another jurisdiction does not include assignment of the renewable attributes of the solar portfolio, the renewable attributes could be available to Minnesota to assist in meeting [Xcel's] compliance obligations under Minnesota's new '100% by 2040' law." If this outcome materializes, Xcel will submit a petition to the Commission before implementing any reassignment of renewable attributes.

F. Authorization to Acquire Land Rights for Sherco 3

On July 14, 2023, Xcel made a supplemental filing for approval to acquire certain real property rights for 619 acres from a subsidiary of NG Renewables. Minn. Stat. § 216B.50 (Property Acquisition, or PA Statute) governs the transfer of utility assets exceeding $100,000. The PA Statute includes a single criterion for making a public interest determination:

> In reaching its determination, the commission shall take into consideration the reasonable value of the property, plant, or securities to be acquired or dispatched of, or merged and consolidated.

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[37] At the time of filing its Petition, Xcel expected MISO's non-thermal accreditation methodology to be filed with FERC in late-2023 or early-2024. Other changes discussed include additional changes to MISO's Planning Reserve Margin (PRM) approach.

[38] Petition, p. 22.

[39] As amended by Minnesota Session Laws 2023, Chapter 7, Section 5.

[40] Minn. Stat. § 216B.1691 subd. 2f.

Acquisitions of property are also governed by Minn. R. 7825.1800, (Filing Requirements). Subparts B, C, and D state that petitions to acquire property shall contain: "all information as required in part 7825.1400, items A to J" (Subpart B); a "description of the property involved in the transaction (Subpart C); and "other pertinent facts" that the Commission may require (Subpart D). Xcel requests that the Commission waive the Company's requirement to file "items A-J" required by Subpart B because these items concern capital structure filings and is geared toward the issuance of securities, which Xcel stated "is not at issue here."

G. Summary of Decision Options

In summary, Xcel believes the proposed solar portfolio because the projects:

- are consistent with the approved IRP;
- were selected using a Commission-approved bidding process;
- will support host communities and contribute to Minnesota's clean energy goals; and
- are the best available options and provide price certainty in an uncertain market.

Therefore, Xcel requests the Commission:

- find that the proposed solar project portfolio is in the public interest;
- approve the acquisition and construction of the Sherco Solar 3 project and the recovery of Sherco Solar 3 project costs for the Minnesota jurisdiction through the RES Rider;
- approve Xcel's acquisition of land rights for the Sherco Solar 3 project; and
- approve its request for a variance of the requirements of Minn. R. 7825.1800, subp. B.

Xcel also offers to file quarterly progress reports until the projects are in service.

II. Bid Evaluation

Bids were evaluated in a five-stage process, which, at a high level, proceeded as follows:

1. Completeness review
2. Threshold review
3. Project scoring
4. EnCompass modeling
5. Final price screen and shortlisting

As noted above, the 2022 Solar RFP received 80 proposals submitted for 43 projects, totaling 2,749 MW of solar and 940 MW/3,120 MWh of storage; however, due to issues such as cost/financing risk, permitting, site control, and interconnection costs, just 24 bids passed the

threshold review. Table 12 shows that of 79 complete bids, 9 bids were withdrawn and 46 were eliminated during the threshold review (thus leaving 24 remaining).

Table 12: Bids through Evaluation Stages[41]

Evaluation Stage	Bids Withdrawn	Bids Eliminated	Bids Remaining
Completeness	1	0	79
Threshold	9	46	24
Project scoring	0	2	22
EnCompass modeling & cost-effectiveness screen	0	13	9

The following sections will discuss evaluation stages in more detail.

A. Completeness

The completeness stage ensured that bids comply with all RFP requirements. As shown above, 79 of 80 bids passed the completeness review.

B. Threshold review

The purpose of the threshold review was to eliminate projects with an unacceptably high level of development and/or pricing risk. There were three main reasons that bids were disqualified: (1) inability to provide firm or conforming bid pricing; (2) lack of adequate site control; and (3) interconnection issues. These three factors are discussed briefly below:

1. ***Firm bid pricing***. Bids were required to have the base year price clearly defined upfront with no undefined escalation factors or price index dependencies, such as inflationary adjustments. Also, bid prices were not allowed to be increased after submittal.

2. ***Site Control***. A developer needed to demonstrate that (a) it was in the process of securing land and (b) the timeline for securing land and permits was accurately reflected in the project timeline to meet a COD by December 31, 2025.

3. ***Interconnection***. Bidders were required to provide information on interconnection to the transmission or distribution grid. Bidders seeking to interconnect to the transmission system at MISO Zone 1 via new GIAs were required to have submitted an application for interconnection with MISO in the 2020 Definitive Planning Phase (DPP) cycle or earlier. Distribution-interconnected projects were required to be located entirely in the retail electric service territory of any of NSP's five states and interconnect via a distribution feeder and substation wholly-owned by NSP.

C. Project Scoring

Xcel explained that the scoring process was a multi-step process that was "expanded and

[41] Table 4, Petition, p. 31

refined from previous RFPs." Moreover, project scoring was uniquely complex given that two types of solar projects were evaluated.

The project's price was the main component of the score, making up 65 of the 100 points possible. Table 13 provides a summary of all parameters incorporated into the score. As noted, a bid could receive up to 100 points, but projects could be deducted up to 35 for failing to meet criteria listed in Table 13.

Table 13: Bid Score Component Summary[42]

Component	Description	Minimum Score	Maximum Score
Price	Standalone solar bids ranked by levelized cost Hybrids scored separately based on installed cost and accredited MW relative to other hybrid bids	0	65
Project capacity and deliverability risk	Risk to providing accredited capacity by the COD indicated in bid; incorporates technical and business practice project risk	0	20
Congestion	Congestion risk, including rank of current and projected congestion level relative to other bids	0	15
Bidder strength	Bidder financials and project execution history	-10	0
Exceptions to model PPA/BT term sheet	Magnitude/materiality of proposed exceptions in alternate bid offer, if applicable	-10	0
Certified diverse suppliers	Strength of certified diverse supplier plan	-10	0
Pollinator habitat	Strength of pollinator habitat plan	-5	0
Total		**-35**	**100**

Xcel explained that hybrid solar projects "offer a different set of benefits to the grid that could make the hybrid project more valuable."[43] Further, they "can be designed in several different ways and can provide value through multiple use cases that all involve different modes of operation."[44,45] Therefore, while standalone solar bids were scored using the standard and

[42] Table 5, Petition, p. 33

[43] Petition, p. 37.

[44] Examples of design differences include AC versus DC-coupled solar-plus-storage systems. A few examples of use cases that solar-plus-storage assets can provide include, but are not limited to: energy arbitrage, transmission or distribution system deferral (non-wires alternatives), ancillary services, transmission congestion relief, supply capacity and resource adequacy, resiliency and backup power, and avoided renewable energy curtailment.

[45] Petition, p. 36.

straightforward LCOE metric,[46] which is consistent with past RFP evaluations, Xcel stated that the value of solar-plus-storage projects would not entirely be captured by the LCOE.

To address this, solar-plus-storage projects were scored separately than standalone solar (which is why there are two separate price rows in Table 13 above) using "a multi-stage cost evaluation step based on levelized total cost per kW and estimated accredited capacity."[47] Xcel claimed that using multiple installed cost metrics made it easier to identify which hybrid bids were the most cost effective relative to other hybrid bids. The superior bids were moved forward to EnCompass modeling.

D. EnCompass Modeling

In past RFPs, LCOE has been a common way to identify top-ranking bids. However, the scoring phase used here required an extra step in which bids advanced to the EnCompass modeling stage. This extra step was needed to compare standalone solar and solar-plus-storage based on how they fared in EnCompass, again,

Ultimately, though, the EnCompass modeling showed that the cost differential for hybrid projects was too high relative to the benefits they afforded.[48] This left only standalone solar projects to be shortlisted.

III. Contract Negotiations and Final Portfolio

A. Nearly all bids did not progress through negotiations

On December 21, 2022, Xcel presented to the IA its preliminary shortlist of nine bids for seven distinct RFP projects totaling 464 MW—already short of the intended 900 MW target. According to Xcel, the shortlist included a mix of interconnection methods, geographic distribution, and a relatively broad range of prices. On January 3, 2023, Xcel began initial conversations with parties whose bids were shortlisted.

Ultimately, eight of the nine shortlisted bids did not progress through negotiations. Some reasons for this are provided below (Staff notes that this is not a comprehensive list; most of the information in this section of the Petition is trade secret):

- One developer determined it could not maintain the rate proposed in its bid and withdrew its project from consideration.

- Another failed to pay its second bid fee as required to demonstrate commitment to good-faith negotiations.

[46] There were three quantity types for which modification could occur on a case-by-case basis, pending discussion with the IA: NCF values, tax credit estimates, and, for those projects opting to reuse Sherco 2 interconnection rights, interconnection costs.
[47] Petition, p. 36.
[48] Petition, p. 37.

- A third withdrew its bids for distribution-interconnected projects because it was unwilling to assume certain risks.

B. Xcel expanded the size of the Sherco Solar 3 bid

Sherco Solar 3 was originally bid as a 150 MW project, but since it was the only bid that proposed to reuse the Company's interconnection rights at Sherco (a similar result as the 2021 Solar RFP), Xcel explored expanding it to 250 MW. This size coincides with the remaining 250 MW of interconnection rights once Sherco Solar 1 and 2 go into service. (Sherco Solar 1 and 2 is 460 MW, so 710 MW - 460 MW = 250 MW.)

C. Backup Bids

Because the shortlist fell well-short of the 900 MW originally sought, Xcel reached out to several bidders for non-shortlisted projects that (a) had already passed through the threshold analysis, but (b) did not pass the $70/MWh price threshold to see if developers could offer revised pricing. The only bidder willing and able to reduce their price below $70/MWh was NG Renewables for its Apple River Solar project, which was not initially shortlisted.

IV. Public Interest Goals/Requirements

A. Socioeconomic Benefits

The Petition describes how the projects will reduce carbon and support the just transition from fossil fuels to renewable energy in host communities. For example, Table 14 shows job creation and landowner/tax payments.

Table 14: Jobs and Landowner/Tax Payments

	Sherco Solar 3[49]	Apple River Solar[50,51]
Union Construction Jobs	95	150
Ongoing O&M Jobs	18	N/A
Landowner payments	$90 million	$19.2 million
Local tax payments	$20 million	$4 million

B. RES and SES

Figures 5 and 6 show Xcel's calculations for RES and SES compliance, which includes forecasted compliance with the expanded RES statute. Figure 5 shows that Xcel can meet the RES requirement through 2034 without Sherco Solar 3, and Figure 6 shows that Xcel can meet the SES requirement through 2029 without proposed Sherco Solar 3. Staff notes this assumes no banking of RECs.

[49] Landowner and local tax payments are based on the 35-year life of the project
[50] Estimated by NG Renewables.
[51] Landowner and local tax payments are based on the 20-year term.

Figure 5: RES Compliance with Sherco Solar 3 Additions[52]

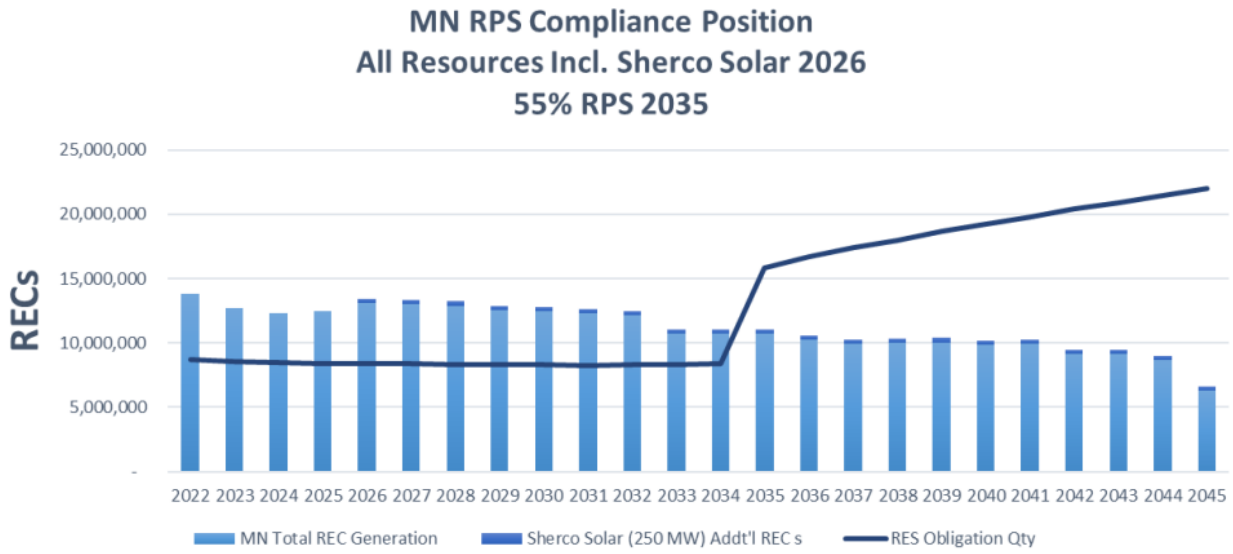
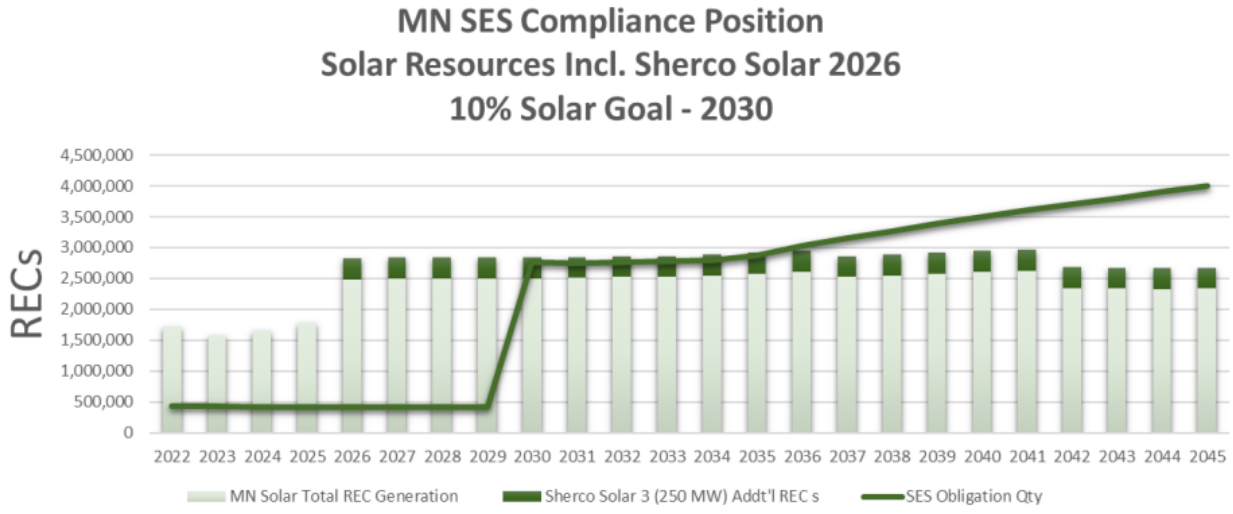


Figure 6 shows that Xcel can meet the 1.5% SES requirement through 2030, while additional RECs from Sherco Solar 3 will then satisfy the 10% goal SES from 2030 through 2035. Beginning in 2036, a gap in RECs versus the 10% SES goal will need to be fulfilled.

Figure 6: Solar Energy Standard Compliance with Sherco Solar 3 Additions[53]



The Apple River PPA ensures that Xcel receives all energy, capacity, and environmental attributes from the project, so Xcel will receive all RECs, which can be counted toward compliance with the RES and SES.

Xcel argues that Sherco Solar 3 will contribute to the SES, which (a) requires 1.5% of retail sales in Minnesota to be generated by solar energy and (b) sets a goal of 10% by 2030.

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[52] Figure 14 of Petition, p. 72

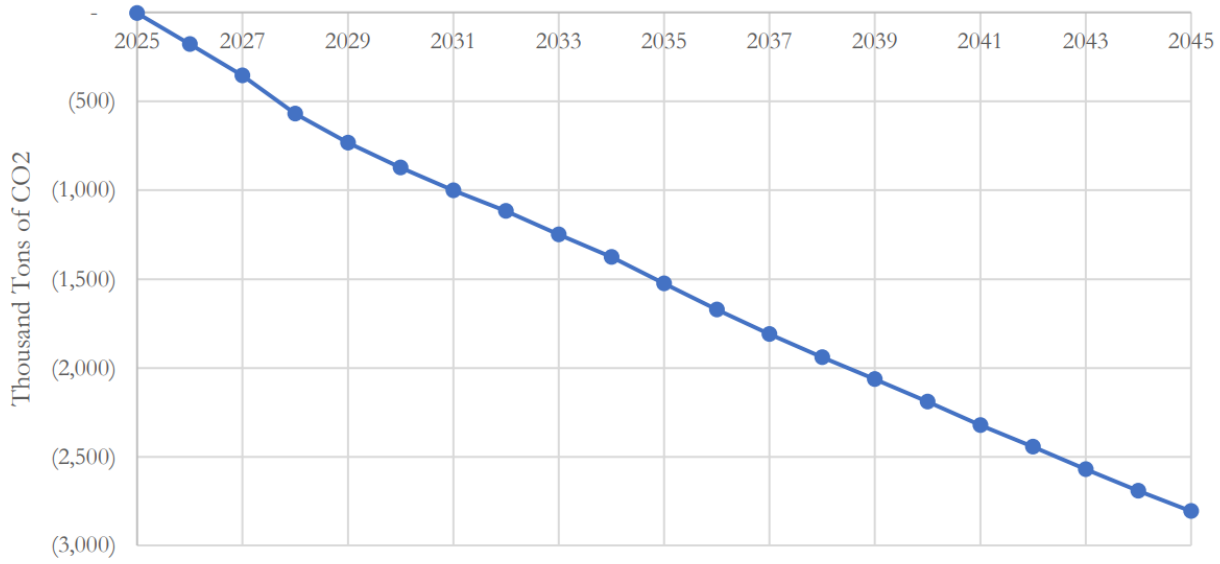
[53] Figure 15 of Petition, p. 72

C. Carbon Reduction

Xcel estimates that the two projects will reduce carbon emissions by approximately 140,000 tons per year in total. Relative to the Base Case, the selected portfolio could be expected to save a cumulative 2.8 million tons of CO_2 emissions over the modeling period.

Figure 7 shows the cumulative CO_2 emissions reductions resulting from the portfolio relative to the base case.

Figure 7: Cumulative CO_2 Emissions Reductions Resulting from the Portfolio Relative to the Base Case (PVSC)[54]



PARTY POSITIONS

I. Department of Commerce

The Department recommends the Commission take the actions below, which are proposed by Xcel as on page 74 of the Company's May 5, 2023, Petition:

- Find that Xcel's proposed solar project portfolio is in the public interest.
- Approve the acquisition and construction of the Sherco Solar 3 project and the Company's proposed approach of recovering Sherco Solar 3 project costs for the Minnesota jurisdiction through the RES Rider.
- Approve Xcel's acquisition of land rights for the Sherco Solar 3 project.
- Approve a variance of the requirements of Minn. R. 7825.1800, subp. B.

[54] Figure 10 of May 30, 2023, Errata, p. 62

- Require Xcel to file a quarterly progress report until the projects are in service, as Xcel is doing for the Sherco Solar 1 and 2 projects.

The Department also recommends that the Commission limit cost recovery for Sherco Solar 3 to an aggregate, symmetrical capital cost cap, with the capital cost recovered being set at the cost bid by Xcel for the 250 MW version of the Sherco Solar 3 project. Xcel opposes this recommendation.

A. Governing Statutes

The Petition was filed pursuant to several sections of Minnesota Statutes, which are shown in Table 15 below.

Table 15: Governing Statutes

Statute	Title/Purpose of Statute
216B.50	Acquisition of property by a public utility
216B.2422, Subd. 5	Exemption from the CN statute[55] for resources selected through a Commission bidding process
216B.243 Subd. 9	Exemption from the CN statute for facilities deemed reasonable and prudent for meeting Minn. Stat. § 216B.1691
216B.1691 Subd. 2a	RES
216B.1691 Subd. 2f	SES
216B.1645 Subd. 2a	Rider-based cost recovery for resources used to satisfy the requirements of Minn. Stat. § 216B.1691

The Department noted that under Minn. Stat. § 216B.243 (CN), no large energy facility (LEF) shall be constructed in Minnesota without a CN. However, Apple River Solar is not located in Minnesota and is therefore not an LEF. Sherco Solar 3 project meets the definition of an LEF, but it does not require a CN because the project was selected in a Commission bidding process.

Additionally, the Department noted that Xcel's acquisition of certain real property rights for 619 acres to develop Sherco Solar 3 falls under the PA Statute, which has a single decision criterion:

> If the Commission finds that the proposed action is consistent with the public interest, it shall give its consent and approval by order in writing. In reaching its determination, the Commission shall take into consideration the reasonable value of the property, plant, or securities to be acquired or disposed of, or merged and consolidated.

Since the Department concluded that Sherco Solar 3 is in the public interest, the land rights

[55] Minn. Stat. § 216B.243.

transaction to develop the project must also be consistent with the public interest.

B. Need Analysis

The Department explained that it generally considers four criteria in evaluating resources in resource acquisition proceedings:

1. Any resource acquisition must address a need reasonably tied to IRP outcomes.
2. New resources must demonstrate that they are least-cost, considering the available alternatives and the risks.
3. Alternatives being evaluated must be compared using a societal benefit/cost test.
4. Renewable resources are preferred, as required by Minn. Stat. § 216B.2422, subd. 4.

Because Xcel stated that the generic solar costs used in the IRP modeling are not achievable in the current market, the Department determined that a limited, IRP-type modeling is warranted to confirm that the best amount of solar has not changed. The Department obtained Xcel's EnCompass files with updated modeling assumptions and re-ran the files. No significant issues were found. By extension, the Department did not find a reason to dispute Xcel's EnCompass analysis, which found that the proposed portfolio can cost-effectively meet Xcel's overall needs.

C. Review of Bidding Process

The Department concluded that Xcel conducted a fair and reasonable resource acquisition process. Below is a summary of the Department's analysis of each stage of Xcel's acquisition process.

1. Bid Evaluation

The Department provided analysis on three phases of Xcel's bid evaluation process: (1) completeness review; (2) threshold review; and (3) key parameters review/scoring. In all three stages, the Department concluded that Xcel's evaluation of bids was reasonable.

2. Shortlisted Bids and Contingency Plans

The Department echoed Xcel in noting that every project on the shortlist failed except Xcel's self-build proposal, and since the shortlist did not fulfill the 900 MW sought, Xcel moved forward with a contingency plan with three main actions:

1. Xcel pursued an expansion of Sherco Solar 3 from 150 MW to 250 MW.

2. Xcel continued to communicate with bidders for non-shortlisted projects to see if those bidders could revise their project terms.

3. Xcel anticipates a capacity need by the 2026/2027 Planning Year, so the Company is evaluating options, including short extensions of existing PPAs, to ensure capacity needs are met without having to extend coal unit retirement date. (The Department noted that such short-term acquisitions are exempt from the formal, Commission-approved bidding process and that it is reasonable for Xcel to explore such actions.)

The Department concluded that Xcel acted in a reasonable manner in the shortlisting process, and the Company's contingency plan is reasonable.

3. Energy Justice

Department Information Request No. 11 requested Xcel to explain how it considered energy justice throughout the acquisition process. Xcel's full response is included in Attachment 1 of the Department's comments. Xcel's response discussed two concepts, affordability and a just transition and economic benefits:

- **Affordability**—Xcel sought to identify the most cost-effective resources available and reduce risk that could increase customer costs in the future.

- **Just transition and economic benefits**—Xcel cited three specifics: siting the Sherco Solar 3 project on the existing Sherco site; prioritizing projects that use diverse suppliers; and creating opportunities via Xcel's Power Up program, which "seeks to increase the diversity of the energy-related and trades workforce through focused outreach to people of color, women, and veterans."

D. Cost Recovery

1. RES Rider Eligibility

The Department agreed with Xcel that Sherco Solar 3 qualifies for cost recovery through the RES Rider pursuant to Minn. Stat. § 216B.1645, subd. 2a. This is because RECs generated by Sherco Solar 3 will help achieve compliance with Minn. Stat. § 216B.1691, subd. 2a.

Assuming no banking of RECs – the Department noted that Xcel does not assume REC banking when calculating its RES/SES compliance position – the Department confirmed that Xcel can meet the RES requirement through 2034 without Sherco Solar 3, and Xcel can meet the SES requirement through 2029 without Sherco Solar 3.

If Xcel had considered banking RECs and S-RECs, the Department stated that Xcel could achieve RES compliance through 2039 and SES compliance through 2045. Since the expected life of Sherco Solar 3 is beyond 2045, Sherco Solar 3 is needed to meet the Minnesota RES and SES at some point during the project's lifetime. Therefore, the Department recommends that the Commission determine Sherco Solar 3 is eligible for RES rider recovery.

2. Cost Cap

The Department recommends that the Commission limit cost recovery for Sherco Solar 3 to an aggregate, symmetrical capital cost cap, with the capital cost recovered being set at the cost bid by Xcel for the 250 MW version of the Sherco Solar 3 project. A "symmetrical capital cost cap" – which Staff notes was proposed by Xcel in its 1,550 MW wind acquisition in Docket No. 16-777 – means that if up-front capital costs exceed the cap, the Company, not customers, bears the

costs. If savings are achieved, however, the Company retains them. The Department reasoned that this is how third-party bidders are treated, so treating Xcel in the same manner is reasonable.

3. Jurisdictional Issues

The Department noted that if there is any jurisdictional reassignment of renewable attributes, then Xcel must submit a petition to the Commission for approval.

E. Xcel Response to the Department

In Reply Comments, Xcel addressed the Department's recommendation that the Commission establish a symmetrical cost cap:

> We understand that cost caps are common customer protection mechanism for the Commission, although the details may vary. A symmetrical cost cap effectively protects customers and, as the Department notes, is not novel: the Commission approved a similar cap for the Company's owned wind portfolio in Docket No. E002/M-16-777. That said, we emphasize that this type of cost cap may not be appropriate for all types of projects or investments, but we agree with the Department that this cost cap structure is consistent with how third-party bidders are treated.
>
> Due to the current market uncertainty and industry challenges, the Company proposes a narrow exception to the symmetrical cost cap – that is, we would like to maintain the opportunity to either re-evaluate the project or come back to the Commission to recover additional costs upon the occurrence of certain market dynamics, such as changes in tariff laws that impacts the global supply chain. For instance, increased Uyghur Forced Labor Prevention Act (UFLPA) action on China could impact our panel supplier and could significantly impact the market and this project. This re-evaluation is similar to how third-party bidders respond when similar circumstances occur – they would come back to us to negotiate or potentially walk away from a project. As always, the Company will account for all project costs and bear the burden to demonstrate prudency in any narrow future requests for cost recovery.[56]

Other than the symmetrical cost cap issue, Xcel's Reply Comments are aligned with the Department's analysis and recommendations.

II. Nokomis Energy

Nokomis Energy (Nokomis) submitted comments with recommendations for modifications to future solar RFPs to improve the process for distributed solar projects. Nokomis emphasized that the existing RFP was "clear and the Xcel staff charged with reviewing the responses were

[56] Xcel, Reply Comments, p. 4.

thorough and provided easy assistance and clarifications when needed" but modifications to the requirements could result in more distributed projects being selected in future RFPs. Nokomis recommended (1) removing the size threshold of 5 MW for distribution-connected projects and (2) allowing projects to be sited outside of Xcel's service area, as long as the point of interconnection lies within Xcel's service area and on its distribution system.[57]

Nokomis also recommended changing the interconnection requirements that barred potential projects from applying for interconnection on Xcel's distribution system after the RFP was announced. For the current RFP, Xcel instituted a "quiet period" where projects bidding into the RFP could not submit an interconnection request from the date of the RFP Notice (July 20, 2022) until the shortlist was announced. Nokomis stated this was detrimental to developers as:

> [t]he cost of a given project (especially distributed generation projects) is highly dependent on the cost of interconnection, and that can only be determined with certainty by submitting the project for interconnection study. Under Xcel's RFP, however, developers were required to already have that information (which is unrealistic), or wait until after the RFP period was over to determine if the projects they had submitted could, in fact, be built.[58]

Nokomis also noted that Xcel's inability to outline specific timelines for Phase II System Impact Studies made setting commercial operation dates difficult.

Finally, Nokomis recommended altering standard form contracts to make it easier for DG solar projects bidding into the RFP. Nokomis explained that the standard PPA form is designed for a single project, however many distributed solar bids contain multiple project sites across various locations. Nokomis gave an example of how that can be challenging when determining COD:

> Either the developer has to develop all of those projects exactly simultaneously, which costs significant resources to slow down or speed up projects, or the developer has to develop projects in the ordinary course, and leave fully constructed and financed projects sitting idle until the last project reaches the single contracted Commercial Operation Date.[59]

Nokomis also recommended reducing the size of the development security and releasing it at COD.

A. Xcel Response to Nokomis Energy

Xcel responded to Nokomis's suggestions, but also noted that no Commission action is necessary at this time because Xcel will submit an informational filing prior to its next RFP that will include more details on RFP modifications.

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[57] Nokomis, Initial Comments, p. 2
[58] Nokomis, Initial Comments, p. 3
[59] Nokomis, Initial Comments, p. 3

Xcel explained that it set the minimum size threshold at 5 MW to align with FERC's Qualifying Facilities (QF) threshold for open market access. According to Xcel:

> Projects 5 MW or less can seek QF designation, after which we would be required to purchase the energy and capacity at avoided costs without a competitive solicitation process. Thus, in setting the RFP threshold at a minimum size exceeding 5 MW, we ensured that projects that did not have an opportunity to access the avoided cost standard offer could participate in the RFP.

Xcel noted the requirement for distribution-connected projects to lie wholly within its service area stems from the requirement under the Community Solar Garden statute (216B.1641) that gardens are wholly-sited within the utility's service territory. According to Xcel, it is reasonable to keep this provision moving forward since the new Distributed Solar Energy Standard (Minn. Stat. 216B.1691, subd. 2h) contains the same requirement.[60]

Xcel agreed with Nokomis that the interconnection "quiet period" needs refinement for future RFPs, but some actions are necessary to avoid speculative queue requests that could delay the overall interconnection queue for distributed solar projects.[61]

Xcel disagreed with Nokomis that changes to the COD and Security Fund in the Company's PPA template were necessary to encourage more distributed generation projects. On the COD, Xcel noted that bidders were able to offer an alternative PPA with redlines which could be used during negotiations for shortlisted projects including different dates for commercial operation. On the performance Security, Xcel clarified that "Security Fund amounts are scaled based on the size of each project" and are necessary to protect ratepayers.[62]

III. LIUNA and IUOE 49/Carpenters

LIUNA and IUOE 49/Carpenters submitted comments in support of the Petition. Both supported Xcel's RFP process and noted that its outcome reflects current market realities, which indicates the original Sherco Solar 1 and 2 project was a prudent investment. IUOE 49/Carpenters supported the job opportunities presented by Xcel's proposal, and LIUNA highlighted how the expansion of Sherco Solar will provide increase training opportunities through the Power Up program. Both organizations urged the Commission to approve the Petition as filed.

STAFF DISCUSSION

I. Guide to the Decision Options

A. Public Interest Determination: Decision Option 1

The first decision the Commission will make is whether the proposed solar portfolio, consisting

[60] Xcel, Reply Comments, p. 6
[61] Xcel, Reply Comments, p. 7
[62] Xcel, Reply comments, pp. 8-9

of the Sherco Solar 3 self-build and the Apple River Solar PPA, is in the public interest. This issue is not in dispute; the Department, IUOE Local 49/Carpenters, and LIUNA filled comments expressing support for the projects. Additional justification for approval includes:

- Xcel conducted economic modeling using EnCompass that showed the portfolio could cost-effectively meet the resource needs identified in the approved IRP. The Department confirmed that the two projects "are reasonable resource acquisitions to meet the need identified in Xcel's IRP."[63]

- Xcel selected the projects using the Commission's approved Modified Track 2 bidding process. The Department reviewed and provided analysis on each stage of the acquisition process and concluded that "Xcel conducted a fair and reasonable resource acquisition process."[64] IUOE Local 49/Carpenters and LIUNA also stated that the resource acquisition process was conducted fairly.

- The Department concluded that "Xcel sufficiently considered energy justice in the Petition and demonstrated a commitment to diversity, equity, and inclusion."[65] In response to Department Information Request No. 11, which was attached to the Department's July 21, 2023, comments, Xcel described how it considered energy justice throughout the acquisition process.

- Xcel estimated that Sherco Solar 3 would create 95 union construction jobs and provide $20 million in local tax payments. NG Renewables estimated that Apple River Solar would create 150 union construction jobs and provide $4 million in local tax payments.

- Xcel calculated that the portfolio is expected to reduce system CO_2 emissions by approximately 140,000 tons per year and save a cumulative 2.8 million tons of CO_2 emissions over the modeling period.

B. Property Acquisition: Decision Options 2 and 3

The next two decision options concern property acquisition. Xcel requests the Commission (1) approve the Company's acquisition of land rights for the Sherco Solar 3 project and (2) approve the Company's request for a variance of the requirements of Minn. R. 7825.1800, subp. B.

On the property acquisition, the Department stated that the PA Statute establishes a single test, which is whether the proposed action is consistent with the public interest. The Department stated that it "agrees with Xcel that the proposed acquisition of the land rights for the Sherco Solar 3 project is in the public interest because the project as a whole is in the public

[63] Department comments, p. 22.

[64] Department comments, p. 22.

[65] Department comments, p. 25.

interest."[66] If the Commission adopts Decision Option 1, it will satisfy the decision criterion under the PA Statute to find that the acquisition of property is also in the public interest.

Staff agrees with the Department's comments on the requested variance, which stated that Xcel sufficiently justified why the Commission should waive the requirements of Minn. R. 7825.1800, subp. B.

C. Cost Recovery: Decision Options 4-6

The Department agreed with Xcel that Sherco Solar 3 is eligible for cost recovery through the RES Rider, and therefore Decision Option 4 is undisputed. Staff will discuss cost caps, represented by Decision Options 5 and 6, in a later section.

D. Compliance Reporting: Decision Option 7

Decision Option 7 would require Xcel to file a quarterly progress report with the Commission after approval until the projects are in service. This option was offered by Xcel and supported by the Department.

II. Discussion of Key Issues

A. Resource Planning / MISO Non-Thermal Accreditation

One of the main issues that Xcel will need to address in its next IRP, which is scheduled to be filed by February 1, 2024, is the MISO seasonal construct and non-thermal capacity accreditation. As discussed previously, Xcel argued these tariff revisions will have potentially significant effects on system planning, impacting both the Company's resource need and the mix of needed resources to make up that. While Staff recognizes the challenges associated with bringing seasonal issues into this proceeding – and therefore has no objection to Xcel discussing them qualitatively at this time – Staff believes there must be quantitative analysis on these issues in the IRP. Xcel stated that it is "working to establish appropriate assumptions and parameters in the EnCompass model to evaluate future resource needs on a seasonal basis."[67]

B. Financial Issues

1. Symmetrical Cost Cap for Sherco Solar 3

The Department recommends that the Commission limit cost recovery to a symmetrical capital cost cap for Sherco Solar 3, and the cap should be set at the cost for Xcel's 250 MW Sherco Solar 3 bid.[68] Under this structure, Xcel would bear the costs if up-front capital costs exceed the cap, but Xcel would retain any savings. The Department referenced the Commission's September 1, 2017, *Order Approving Petition, Granting Variance, and Requiring Compliance*

[66] Department comments, p. 8.

[67] Petition, p. 22.

[68] Department comments, p. 24.

Filing in Docket No. 16-777, which was Xcel's 1,550 MW wind acquisition docket, as an example. The Department believes this cap is appropriate in this case because:

> This is how third-party bidders are treated so treating Xcel in the same manner is reasonable.[69]

In response, Xcel opposed the Department's proposed symmetrical cost cap, arguing that due to current solar market uncertainty and industry challenges, the Company wants the opportunity to recover additional costs later:

> [W]e would like to maintain the opportunity to either re-evaluate the project or come back to the Commission to recover additional costs upon the occurrence of certain market dynamics, such as changes in tariff laws that impacts the global supply chain.[70]

Before addressing the specifics of the cost cap, Staff notes that much of the Petition describes why costs are *already* above what was contemplated in the IRP. Xcel's implication that it may "potentially walk away" from the project without a guarantee that it can recover higher-than-estimated costs is discomforting, given the economic, socioeconomic, and environmental benefits the project provides. The Department's recommendation merely requests that Xcel be held to the same standards as third-party bidders and that the Commission set a cost recovery mechanism that it has approved in the past. By opposing any cap on costs without providing an alternative, Xcel displays a worrisome lack of confidence in its estimate, especially considering Xcel's generous incentive to retain the savings if it can reduce project development costs.

To specifically address the Department's recommendation, Staff notes that the Department's reference to Docket No. 16-777 is appropriate because in that proceeding Xcel acquired a mix of self-build and PPA projects. Similarly here, Xcel sought a mix of self-build and PPA bids, ultimately selecting one self-build and one PPA. Therefore, Staff believes it was reasonable for the Department to recommend that the Commission (a) treat Xcel in the same manner as third-party bidders and (b) be consistent with past orders in self-build/PPA resource acquisition proceedings.

Staff notes that the Department's initial comments in Docket No. 16-777 elaborate on why a symmetrical cost cap is a fairness issue in resource acquisition dockets where a Company bid competes against a third-party bid:

> Here [in Docket No. 16-777] Xcel's bid is competing against other bids to meet the identified need. If the final cost to ratepayers were not considered to be firm or known when the Commission is evaluating bids, ratepayers would be at risk to incur some amount of unknown costs. Further, if one bidder were allowed to pass

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[69] Department comments, p. 24.

[70] Xcel reply, p. 4.

> extra costs onto ratepayers while are bidders were not, the bidding process would not be fair to all bidders. Finally, the Department intends to recommend that the Commission hold each bidder to the prices used to evaluate each bid for purposes of cost recovery from Xcel retail ratepayers. Xcel's proposal not to adjust the cost of the Company's bid—the symmetrical cost cap—following Commission selection of Xcel's proposal would be fair to other bidders and to ratepayers.[71]

Throughout the Petition, Xcel explained why it disqualified projects because bids could not guarantee firm pricing, and that bids were not allowed to be increased after submittal. As a bidder, Xcel arguably has an unfair advantage if the Company is not held to its estimate by having the opportunity to pass additional costs onto ratepayers in the future.

However, one of Staff's concerns with a symmetrical cost cap is that it allows Xcel to retain any savings but still earn a return on the full upfront estimate. Staff would support a non-symmetrical cost cap, in which (a) the Commission sets a capital cost cap at Xcel's 250 MW bid for Sherco Solar 3, but (b) ratepayers retain the savings. Presumably, Xcel would strongly oppose this, so as an alternative, the Commission could adopt its "soft cap" approved in the Sherco Solar 1 and 2 proceeding.

The Commission's November 7, 2022, Order in Docket No. 20-891 capped RES Rider recovery for Sherco Solar 1 and 2 at Xcel's capital cost estimate, and the Commission adopted several ratepayer protections proposed by the Department. This capital cost cap, with the Department's previously-recommended ratepayer protections, is represented by Decision Options 6.a. – 6.f., which is also listed below:

Decision Option 6. Rider recovery for the Sherco Solar 3 project is capped at the pricing included in Xcel's May 5, 2023, Petition. The Commission requires the ratepayer protections listed as follows:

a. Xcel must justify any ongoing costs (including operations and management expense, ongoing capital expense – including revenue requirements related to capital included in rate base – insurance expense, land-lease expense, and property/production tax expense) that are higher than forecasted in this proceeding.

b. Ratepayers will not be put at risk for any assumed benefits that do not materialize; Xcel customers must be protected from risks associated with the non-deliverability of accredited capacity and/or energy from the proposed Project, other than non- deliverability caused by weather. The Commission may adjust Xcel's recovery of costs associated with this proposed Project in the future if actual production varies significantly from assumed production over an extended period, for reasons other than those related to weather.

[71] Docket No. 16-777, Department comments (May 1, 2017), p. 35.

c. Xcel must report in its fuel clause filing and annual automatic adjustment filings the amount of any curtailment, along with explanations for the curtailments, for the proposed Project.

d. Xcel must clearly account for all costs incurred for the proposed Project.

e. Xcel must report quarterly, until the proposed Project is in service, project failures along with the options available to the Commission to remedy any failures that occur.

f. Xcel must report on how the proposed Project as built is consistent with the information requested in the May 20, 2020, notice issued in Docket No. E,G-999/CI-20-492.

2. Sherco Solar 1 and 2 Cost Cap

Previous sections of the briefing paper mention that the Commission's November 7, 2022, order in Docket No. 20-891 tied cost recovery for Sherco Solar 1 and 2 to the outcome of the 2022 Solar RFP. Staff was unable to locate on this record whether the Commission has formally established a cost cap for Sherco Solar 1 and 2. In this docket's petition, Xcel claimed that $690.1 million, not including AFUDC, "will be the established cost cap of the Sherco Solar 1 & 2 project,"[72] but the Commission has not apparently confirmed Xcel's position on this matter.

The Commission may wish to confirm with parties what Commission order established the Sherco Solar 1 and 2 cost cap. In the Commission's April 12, 2023, Order in Xcel's 2023 RES Rider docket (22-528), the Commission required Xcel to make a compliance filing addressing the Sherco Solar cost cap, which Xcel filed on May 9, 2023. However, Xcel made similar arguments in that filing as in the Petition in this docket, leaving it unclear when or in what docket the Commission confirmed Xcel's position.

C. Resource Acquisition

1. Competitive Bidding / Development Transfer Docket

As a point of clarification, there were sufficient bids in response to the 2022 Solar RFP for Xcel to meet its capacity target, but there were not sufficient bids that proceeded to the preliminary shortlist. Another way to put it is that not enough bids can currently offer fixed price bids with sufficient interconnection certainty that were below $70/MWh. Xcel's discussion of current solar industry challenges and market dynamics explained why so many projects did not proceed. The RFP indicated a robust interest in providing solar to the Company, and many of the challenges facing bidders may ease with time, and improvements to the RFP may allow more projects to qualify.

To be clear, Staff believes Xcel's decision to impose a $70/MWh price cap to weed out bids that

[72] Xcel Petition, p. 53.

would increase customers' bills was reasonable; this was indicated by the EnCompass modeling, which showed that Apple River Solar was nearly breakeven even though it is priced under the $70/MWh threshold. The point is that even though the RFP failed to reach the 900 MW target, the response rate was encouraging, as Xcel received bids for 2,749 MW of solar, including 940 MW/3,120 MWh of storage and 411.5 MW of distributed solar.

2. Future Project Selection Methods

As indicated above, Staff agrees with Xcel and Nokomis that some tweaks to future RFPs could result in distributed solar project selection. Specifically, Staff believes removing the minimum size threshold and modifying the "quiet period" would be reasonable for future solar RFPs. While 5 MW is the FERC PURPA threshold for open market access, and thus access to the avoided cost rate for smaller projects, Staff notes that future RFPs could include a condition that any selected projects agree not to seek Qualifying Facility status. Furthermore, it is entirely feasible that the avoided cost rate is lower than selected project costs. Therefore, Staff does not agree with Xcel that the PURPA QF size threshold is an appropriate determinant of the minimum size for distribution connected projects.

Staff also agrees with both Xcel and Nokomis that the "quiet period" presents challenges for distribution projects to accurately assess the total costs of trying to interconnect. Staff encourages Xcel to engage with developers and stakeholders to find a solution ahead of future distributed solar RFPs. Staff notes that the recently passed Distributed Energy Solar Standard (DSES) requires utilities to satisfy the standard through a "competitive bidding process approved by the Commission,"[73] therefore efforts learn from the current solar RFP will be helpful as that process evolves.

3. Development Transfer Docket (23-342)

Finally, Staff notes that on July 26, 2023, in Docket No. 23-342, Xcel filed a petition for approval of a "Development Transfer Resource Acquisition Process" to obtain resources to reutilize remaining interconnection rights at Sherco. The purpose of the new process is to address the difficulties encountered in the 2021 and 2022 solar RFPs, which received only one qualifying bid each at those sites—the Company's self-build bids.

On August 2, 2023, the Commission issued a *Notice of Comment Period* in Docket No. 23-342, requesting comment on, among other things, whether the Development Transfer process is aligned with the Commission's resource acquisition requirements from its IRP Order, as well as whether a new process is in the best interest of Xcel's ratepayers. Parties filed Initial Comments on August 28, 2023, and Xcel filed Reply Comments on September 8, 2023.

[73] Minn. Stat. § 216B.1691 subd. 2h as added by 2023 Session Laws, Chapter 60, Article 12, Section 16

DECISION OPTIONS

1. Find that the Company's proposed solar project portfolio, consisting of the Sherco Solar 3 project and the Apple River Solar project, is in the public interest. *(Xcel, Department, IUOE 49, Nokomis Energy, LIUNA)*

2. Approve the acquisition of land rights for the Sherco Solar 3 project. *(Xcel, Department)*

3. Approve the Company's request for a variance of the requirements of Minn. R. 7825.1800, subp. B. *(Xcel, Department)*

4. Approve the acquisition and construction of the Sherco Solar 3 project and the Company's proposed approach of recovering Sherco Solar 3 project costs for the Minnesota jurisdiction through the Renewable Energy Standard (RES) Rider. *(Xcel, Department)*

5. Limit cost recovery to an aggregate, symmetrical capital cost cap for Xcel's proposed Sherco Solar 3 project with the capital cost recovered being set at the cost bid by Xcel for the 250 MW version of the Sherco Solar 3 project. *(Department)* **OR**

6. Rider recovery for the Sherco Solar 3 project is capped at the pricing included in Xcel's May 5, 2023, Petition. The Commission requires the ratepayer protections listed as follows:

    A. Xcel must justify any ongoing costs (including operations and management expense, ongoing capital expense – including revenue requirements related to capital included in rate base – insurance expense, land-lease expense, and property/production tax expense) that are higher than forecasted in this proceeding.

    B. Ratepayers will not be put at risk for any assumed benefits that do not materialize; Xcel customers must be protected from risks associated with the non-deliverability of accredited capacity and/or energy from the proposed Project, other than non-deliverability caused by weather. The Commission may adjust Xcel's recovery of costs associated with this proposed Project in the future if actual production varies significantly from assumed production over an extended period, for reasons other than those related to weather.

    C. Xcel must report in its fuel clause filing and annual automatic adjustment filings the amount of any curtailment, along with explanations for the curtailments, for the proposed Project.

    D. Xcel must clearly account for all costs incurred for the proposed Project.

    E. Xcel must report quarterly, until the proposed Project is in service, project failures along with the options available to the Commission to remedy any failures that occur.

F. Xcel must report on how the proposed Project as built is consistent with the information requested in the May 20, 2020, notice issued in Docket No. E,G-999/CI-20-492. *(Staff alternative to DO 3.)*

7. Require Xcel to file a quarterly progress report with the Commission after approval until the projects are in service. *(Xcel, Department. Also, Staff notes that if the Commission adopts 6.e and 6.f, Option 7 is no longer needed.)*