

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben Valerie Means Matthew Schuerger Joseph K. Sullivan John A. Tuma		Chair Commissioner Commissioner Commissioner Commissioner
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IN THE MATTER OF THE PETITION OF
XCEL ENERGY FOR APPROVAL OF THE
ACQUISITION OF SOLAR GENERATION AT
XCEL ENERGY’S SHERBURNE COUNTY SITE

DOCKET No. E002/M-20-891

REPLY COMMENTS

LIUNA Minnesota & North Dakota (“LIUNA”), submits these reply comments in the above-entitled docket and urges the Minnesota Public Utilities Commission (“Commission”) to approve Xcel Energy’s Sherco Solar Project (“Sherco Solar”).

Introduction

As it continues to aggressively pursue Minnesota’s decarbonization goals, Xcel Energy will be retiring 2400 MW of coal generation by 2030, including over 700 MW of coal generation at the Sherco generation station by 2026. And in its recent integrated resource plan (“IRP”), Xcel decided to forego building an 800 MW combined cycle gas generating plant at the Sherco site. All of this creates a pressing need for an enormous amount of new renewable generation on Xcel’s system in a relatively short time frame to enable the continued provision of reliable electric service. Importantly, building this new renewable generation is also essential to mitigate the socioeconomic harms, including the loss of family-supporting jobs, caused by coal plant closures and Xcel’s related decision to forego building a proposed combined cycle plant.

Xcel’s proposed 460 MW solar facility at the Sherco site is critical to meeting the need for capacity to replace the fossil generation that is being retired or that will not now be built, and it is also critical to mitigating the related economic and socioeconomic harms to the affected communities. The value of the Sherco Solar Project goes beyond the essential carbon-free generation it will provide in the wake of the Sherco coal plant retirements in the next four years. It will make real the rhetorical commitment to a just energy transition by creating jobs and helping mitigate the other

economic harms to the communities in the vicinity of the Sherco site. That consideration should be a high priority in the Commission's decision on this matter.

Sherco Solar represents a major opportunity for a workforce and community that will be harmed by plant retirements being implemented as part of Minnesota's clean energy transition. Those retirements will hurt workers and communities that have built their lives around the retiring facilities. And while Xcel initially planned to retrain and transition those workers to operating a combined cycle natural gas plant, Xcel ultimately withdrew that in response to stakeholder opposition. Some of these workers could help build Sherco Solar, which is projected to create approximately 900 well-paying union construction jobs and an estimated \$115 million in wages. The Sherco Solar Project is also uniquely positioned to support the recently approved Workforce Training and Development program designed to integrate historically marginalized communities into the energy workforce. In other words, the Sherco Solar Project would put into action rhetorical commitments to pursue a just and equitable transition for impacted communities.

The concerns raised by the Office of Attorney General (OAG) about the cost of the Project are misplaced and the supporting analysis is misleading for at least three reasons. First, the OAG's analysis fails to reflect the critical socioeconomic value of the Project to the communities that will be significantly impacted by the upcoming Sherco coal plant retirements and Xcel's decision to forego building its initially proposed combined cycle gas plant at the Sherco site. Second, the OAG's analysis fails to reflect the value of using Xcel's existing interconnection rights and land, which necessarily limits the geographic radius for a viable project. Finally, the information relied on by the OAG fails to reflect the rising cost of solar projects in the current inflationary environment. Importantly, those inflationary pressures are not reflected in the Department of Energy, LevelTen Energy or Lazard estimates cited in the OAG's comments. Those estimates are backward looking and highly generalized or generic.

The Sherco Solar Project was selected through the Commission's Modified Track 2 bidding process. Xcel also retained an independent auditor who provided a report validating the process and certifying that it did not unfairly advantage any interested party or RFP respondent.¹ Importantly, the bidding process was specifically designed to (1) align with the specific needs of Xcel's system; (2) provide mitigating socioeconomic benefits to the communities that will be harmed by the upcoming Sherco plant retirements in 2023 and 2026; and (3) take advantage of Xcel's existing

¹ Xcel Petition, p. 30.

interconnection and land rights² at a time when we are experiencing severe transmission constraints and increasing difficulties securing land rights for large renewable projects. Ultimately, the Sherco Solar project emerged from the bidding process as the least-cost proposal and, if approved, it will be the lowest-cost solar resource on Xcel's system.³ The cost will be further reduced and savings passed on to ratepayers if pending tax reform measures are enacted by Congress.

Xcel's IRP requires construction of 1,300 MW of new solar in less than four years and Sherco Solar will play a critical role in Xcel's ability to achieve that end. If built within that time frame, Sherco Solar will provide substantial system, environmental and socioeconomic benefits to the state and the local communities affected by Xcel's planned coal plant closures. Any significant delay in this Project would jeopardize these benefits and imperil Xcel's ability to fully leverage its interconnection rights and meet the capacity need identified for 2026. To the degree that circumstances have changed since the Sherco Solar RFP was issued in January of 2021, we believe that these changes – including increased uncertainty regarding the viability of previously contracted projects such as Elk Creek Solar and rising prices for solar contracts – further underscore the need for, and net benefits of, Xcel's proposal.

In a nutshell, the Sherco Solar should be approved as both reasonable and necessary to Minnesota's energy transition away from fossil fuels and Minnesota's commitment to ensure that this transition is just and equitable.

Issues

Xcel's Sherco Solar proposal is consistent with its recently approved IRP. The cost objections asserted by certain parties are erroneous and fail to provide a persuasive basis for rejecting the project.

A. Sherco Solar is Consistent with Xcel's Recently Approved IRP and Essential to Preserve Valuable Interconnection Rights

When Xcel submitted its petition for approval of the Sherco Solar project on April 12, 2021, the Commission had not yet addressed its 2020-2034 IRP. Since that time, the Commission voted to approve the IRP with modifications.

² The Project will combine a 1,654 acre solar site under development by NG Renewables with "a 1,826 acre site that has been under development by Xcel adjoining the east side of the Sherco Generating Station." (Xcel Petition, p. 10.)

³ Xcel Petition, p. 3

Among other items, the Commission approved the need for approximately 1,300 MW of solar by 2026 and the use of the Commission's Track 2 bidding process to secure the additional solar capacity. The Commission also recognized that 720 MW of the additional solar capacity would be owned by Xcel to fully reuse the Sherco Unit 2 interconnection rights, which would necessarily exclude PPAs as viable options for this tranche of solar.⁴

Consistent with this decision, the Sherco Solar bidding process was designed to take advantage of Xcel's existing interconnection rights while also using Xcel's existing land rights and providing important socioeconomic benefits to communities adjacent to the Sherco site. The Sherco Solar project further supports the Commission's decision to incorporate equity for underserved communities and just transitions for plant host communities into Xcel's plans moving forward.

The OAG takes issue with Xcel's decision to require bidders to use the Sherco interconnection and limit bids to projects that resulted in Xcel ownership through a Build-Transfer structure. While the OAG does not dispute that use of the interconnection and Xcel ownership are both necessary to preserve existing interconnection rights, they assign no value to the rights themselves beyond their direct impact on the cost of the project – a position that is consistent with the OAG's opposition to proposed gen-tie transmission lines in the IRP.

The Commission, however, came to a different conclusion, recognizing the value of the interconnection rights, and directing Xcel to pursue plans to retain them for the benefit of ratepayers. If preserved, these interconnections would remain available to Xcel ratepayers as regulatory assets into the future, while abandonment in favor of PPAs would leave the utility with fewer options in 20 years when the utility must secure replacement resources.

We have little reason to believe that transmission resources will be easily and cheaply available at any point during the energy transition given the need to replace gigawatts of conventional generation with renewable generation while simultaneously expanding capacity to serve a three- to five-times greater load in the face of growing opposition and regulatory fragmentation. Under these circumstances, reuse of existing interconnections provides a valuable hedge against future risk.

Further, in the current transmission-constrained environment, even if Xcel were able to find affordable projects with secure interconnections sufficient to make up for the

⁴ Minnesota Public Utilities Commission, Chair Katie Sieben Partial List of Decision Options, Integrated Resource Plan proceeding (Docket No. E002/19-368), February 7, 2022.

capacity represented by Sherco Solar, that capacity would likely be acquired at the expense of other Minnesota utilities competing for the same limited solar resources. On the other hand, reuse of the Sherco interconnection would allow the relative handful of Minnesota solar projects with viable interconnections available for other utilities or corporate customers. If the interconnection is abandoned some of these customers are likely to be left high and dry.

B. Sherco Solar is a Least-Cost Addition Reusing the Sherco Interconnection Rights to Meet the Capacity Need Identified in the IRP.

As illustrated in Table 1 from Xcel's petition, Sherco Solar was the lowest-cost proposal that emerged from the bidding process. It compares favorably not only to the other bids in the RFP, but also all other projects in the Upper Midwest for which there is publicly available pricing information and all of the solar generation currently on Xcel's NSP system.

Sherco Solar would be Xcel/NSP's least-cost solar resource on its system and substantially less costly than the price of the average Community Solar Garden (CSG) project, which currently represents most of the solar energy production in the Company's system. It will also benefit all of Xcel's customers equally, unlike the significantly higher-cost CSG program, which disproportionately benefits commercial and industrial customers at the expense of residential and lower-income customers.

Further, Sherco Solar would also mitigate risk associated with new utility-scale resources that lack secure interconnections. This risk has become more apparent over the past 18 months, especially given the inability of Xcel's most recent solar acquisition to deliver promised power due to interconnection problems. While the cost of acquiring solar energy through a Power Purchase Agreement ("PPA") with National Grid's Elk Creek Solar may have compared favorably to Sherco Solar on paper, in the real world the project remains in limbo, customers are receiving services via Renewable Energy Credits, and anticipated jobs have not yet materialized.

The uncertainty created by transmission congestion is not unique to Elk Creek Solar; it is instead common among wind and solar projects in the Upper Midwest based on our conversations with leading developers and industry experts. Demand for clean energy transmission interconnection exceeds supply by a wide margin in the region, and developers often do not know with any certainty whether, when, or at what cost their projects might secure interconnection agreements. The value of the "bird in the hand" represented by Xcel's proposed reuse of interconnection rights becomes clear when compared to the failure of Elk Creek to deliver power or jobs on the original timetable.

C. The OAG's Representations of the Prices Xcel Would Likely Obtain from A New Bidding Process Are Unrealistic and Misleading.

The OAG criticizes the Sherco Solar pricing by looking to exceedingly low, out-of-date assumptions or generic solar costs, which are inappropriate to compare to bid prices in an RFP with specific requirements. Specifically, the OAG cites a project cost range as low as \$24 and up to \$37.07/MWh.⁵ These cost assumptions have no bearing on the likelihood of actual project costs in Minnesota currently. One data point in the range is based on projects from across all of MISO, an area that encompasses 15 states—as far south as Louisiana—and the Canadian province of Manitoba. Another comes from a July 19, 2021 LevelTen PPA Price Index report that was outdated when the OAG cited it. Notably, in the third quarter of 2021, LevelTen Energy published a subsequent report (which would have been available to the OAG when it filed its comments) showing top quartile prices over \$10/MWh higher than what the OAG cited. According to the P25 index from LevelTen in January, prices being offered by developers selling U.S. wind and solar contracts rose 15.7% in 2021 compared to the prior year . . .”⁶ A separate report, Edison Energy’s Q4 2021 Renewables Market Update, found that solar PPAs in MISO included projects priced at approximately \$60/MWh.⁷

Considering those recent reports and Xcel’s pricing information from its own experience and its Sherco Solar bidding process, which is a more applicable survey of solar project costs, it is clear that the OAG’s range is not representative of project costs in the Upper Midwest or current market conditions, in general. The current solar project market price is much higher than suggested in the OAG’s comments and in line with the Sherco Solar project costs.

Furthermore, current market dynamics – including global supply chain shortages, rising commodity prices, transmission constraints, interconnection process delays, and an overall inflationary environment – are contributing to significant cost increases, project delays, and/or project failures. In the most recently available data from the U.S. Energy Information Administration’s EIA-860 report, there were more than 1,000 MW of “cancelled” solar projects reported in 2020 alone.⁸ A March 31, 2022 industry article states:

⁵ The Office of the Attorney General, page 4.

⁶ Inside Climate News, “Inside Clean Energy: Wind and Solar Costs Have Risen. How Long Should We Expect This Trend to Last?”, January 20, 2022.

<https://insideclimatenews.org/news/20012022/Inside-clean-energy-wind-solar-price-trends/>

⁷ Edison Energy, Renewables Market Update, Q4 2021, page 8.

⁸ U.S. Energy Information Administration (EIA), EIA-860 Report, September 9, 2021, <https://www.eia.gov/electricity/data/eia860/>.

“The project delays and cancellations are not only due to delays in getting products that go into developing a solar project, they're also because prices have been going up very quickly at the same time, thanks to those supply chain constraints and inflationary pressures.”
Shawn Rumery, SELA's senior director of research⁹

LevelTen Vice-President Rob Collier described the picture as “a huge surge in demand... [a]t the same time we're seeing a shortfall of viable projects.” Further, the 15.7 percent increase in solar prices from 2020 to 2021 contained in LevelTen's recent P25 index likely understates the shift in pricing because it is based on offers rather than executed projects; and because it targets 25th percentile pricing that LevelTen has historically found to be indicative of projects selected by buyers, but that may no longer represent the average in a “seller's market where demand exceeds supply and buyers must take what they can get, especially in the highly-congested Upper Midwest.

These macroeconomic trends were already beginning to impact solar projects in the Midwest. For example, Wisconsin Power and Light (“WPL”) recently adjusted its capital cost assumptions to reflect the market challenges facing its solar projects (Docket No. 6680-CE-183). As WPL stated in a post-hearing brief filed on February 11, 2022:

Third, and perhaps most importantly, WPL updated its capital cost assumptions for constructing new solar generation to reflect macroeconomic trends that have placed upward cost pressure on solar resources following the global pandemic. Prices for commodities like steel, silver, polysilicon, and copper (the raw materials used in solar panels and other components) have increased to two- or three-times pre-pandemic levels. Freight and transportation costs have also skyrocketed, and there are significant bottlenecks at American ports. These issues directly impact the cost and schedule for constructing solar projects in America, since many materials (especially panels) are imported. American trade policy has also significantly impact on the cost of solar equipment: an anti-dumping petition before the U.S. Department of Commerce created significant supply and price disruptions in the market for solar cells and panels, and the Biden Administration recently decided to extend existing tariff rates on imported solar cells, subject to certain caveats.

⁹ Utility Dive, “Supply-chain squeeze: Solar, storage industries grapple with delays, price spikes as demand continues to grow,” March 31, 2022, <https://www.utilitydive.com/news/solar-storage-delays-price-supply-chain/620537/>.

WPL observed firsthand the impact that these broader market and supply chain disruptions, which are beyond its control, have had on developing the Solar Projects. At the time WPL filed its updated application in this proceeding in September 2021, it worked to lock in pricing for key project components, including panels, racking, and inverters. As a result of these developments, the Blueprint analysis in this proceeding reflects a \$685 million (\$1,655/kWAC) cost estimate for the Solar Projects.¹⁰

Solar projects in Minnesota are not immune to these challenges. On January 31, 2022, Otter Tail Power Company (OTP) submitted a compliance filing to provide a status update on the 50 MW Hoot Lake Solar Project in Fergus Falls, Minnesota. In its filing, OTP also noted several market challenges currently facing solar projects:

There are a number of challenges currently facing the solar industry, including metal price increases, shipping cost increases, supply chain delays, trade related issues on silica-based modules (section 201 complaint – US international trade commission, anti-dumping countervailing tariff filing with the US DOC, proposed legislation related to Xinjiang region of China). Due to solar industry dynamics, Otter Tail is making adjustments to its design and procurement activity to mitigate the uncertainties. Even with the adjustments to the design and procurement, and changes within the industry, Otter Tail's previous cost and timeline estimates remain its best estimates, based on what is known at the time of this filing.

While OTP maintained that its initial cost and timeline estimates remain its best projection at this time, OTP also noted it will continue to adjust its design and procurement activities in an attempt to mitigate any uncertainties facing the Hoot Lake project.¹¹

Unfortunately, we see little reason to believe that prices will fall or even level off soon given transmission constraints and volatility in the solar supply chain. Transmission congestion is preventing low-cost projects such as Elk Creek from being built and forcing renewable developers operating in the Upper Midwest to build additional costs for transmission upgrades and infrastructure (e.g. gen-tie lines) into their projects. Meanwhile prices for panels and other components, which have helped drive costs down for more than a decade, are now on the rise. Some of these impacts are directly attributable to supply chain disruptions from the COVID-19 pandemic, which may ease in the near future. But overall long-term macroeconomic inflationary trends

¹⁰ Wisconsin Power and Light Company, page 13.

¹¹ Otter Tail Power Company, Compliance Filing (Docket No. E017/M-20-844), January 31, 2022.

along with other pressures such as human rights concerns, trade disputes and increased global demand seem likely to get worse before they get better. The recent announcement of an investigation into potential circumvention of tariffs is just one example of the cross-currents that could make it more difficult to plan and price solar projects going forward.

Any parties suggesting that the Sherco Solar project could be delivered at a lower price or developed more quickly are not appropriately factoring current market dynamics, the state of the MISO queue process, or the opportunity cost associated with delaying the Sherco Solar project. Despite the OAG and Department of Commerce (“Department”) claims that re-bidding would result in a lower cost project, the evidence suggests that it is just as likely—if not *more* likely—that re-bidding would lead to a project with increased costs and a significantly later in-service date. As a result, the record is clear that Sherco Solar’s price—based on a robust competitive solicitation process—should be approved now. Any delay risks higher costs and possibly not having the solar additions needed to take full advantage of Xcel’s Sherco interconnection rights and meet the 2026 capacity needs identified in the IRP.

D. No Party Has Identified a Flaw in the Sherco RFP Process

Comments filed by the Department and OAG assert that the Sherco RFP process was flawed, but neither set of comments identifies any defect in the RFP beyond Xcel’s decision to require bidders to propose projects that could reuse existing interconnection rights and be built within a 40-mile radius of the Sherco site. But the reuse of existing interconnection rights is fully consistent with the Commission’s subsequent decision in the IRP proceeding and with the interest of ratepayers in maintaining current interconnection rights. And the 40-mile limitation was a necessary and reasonable constraint to ensure the economic use of Xcel’s existing interconnection and socioeconomic benefits to the communities impacted by the coal plant closures.

The OAG cites the limited number of bids received in response to the Sherco Solar RFP as proof of a flawed RFP, but fails to explain how Xcel constrained bidding beyond the requirements related to securing interconnection rights and benefiting the local communities near the Sherco site or why the results should be understood anything other than an accurate representation of available resources that could meet the need for Xcel-owned replacement generation at or adjacent to the Sherco site.

Unfortunately, the OAG does not provide an objective standard for determining how many bids should be required to certify an RFP process as competitive. Our experience in the construction industry, which is almost entirely driven by competitive bid processes, has shown us that any number of bids greater than one can, and often

does, provide a reasonable basis for project owners to assess whether a low or preferred bid is reasonable. Further, the number of bids submitted typically says as much about overall market conditions as it does about a potential project, with the number of bids received for a given project ballooning to a dozen or more in a “buyer’s market” and shrinking to a two, one, or even none in a “seller’s market”.

E. The Sherco Solar Project Will Help Mitigate the Harms From the Sherco Plant Retirements And Help Facilitate a Just Transition.

Sherco Solar is unique in its potential to support a just transition for plant host communities and the utility workforce, as well as communities of color that are underrepresented in energy and construction careers. Ceres, a national leader in corporate sustainability, along with cloud computing company Salesforce have identified provision of benefits for communities of color that have historically been underserved by a range of institutions, as well as legacy and new host communities, as keys to a just clean energy development. Unlike most Minnesota clean energy projects, which provide limited benefits to underserved and legacy energy stakeholders, Sherco Solar would deliver significant benefits to both while also meeting Ceres best-practice recommendations with respect to protection and efficient use of environmental resources; responsible contracting; stakeholder engagement; and transparency.

Sherco Solar will support the just transition for workers at the plant, along with the broader community, as Xcel retires all its remaining coal units over the next eight years. The elimination of a planned 800 MW combined-cycle gas-fired power plant intensified the socioeconomic challenge faced by surrounding communities and the plant’s workforce — leaving an economic hole that Sherco Solar will help fill.

The Project will also provide an optimal opportunity for supporting Xcel’s recently approved Workforce Development and Training pilot program. As Xcel continues to transition from existing fossil fuel resources to more carbon-free resources, we need to acknowledge *and address* the economic and socioeconomic impacts of that transition on workers and local communities.

Sherco Solar is an important part of the energy transition for the City of Becker, Becker Township, Clear Lake Township, and other surrounding communities impacted by the retirement of the Sherco generation facility. In real terms, the Sherco Solar project will translate to significant local jobs and economic benefits, creating more than 900 well-paying construction jobs and \$115 million in wages across three years of construction activities. It will also offer an important career pathway for Sherco plant workers interested in transitioning to solar project development. Additionally, over the life of the Project, Sherco Solar will generate \$240 million in

local economic benefits (including landowner payments and state and local taxes), offering critical support to the local economy after the retirement of the Sherco plant.

Ensuring a just energy transition is not only about demonstrating a commitment to our impacted host communities and workers, it is also about actively engaging communities and workers that have traditionally been left out of the energy industry. The Sherco Solar project, through Xcel's recently approved Workforce Training and Development pilot program, represents a unique opportunity to create new career pathways and diversify the utility workforce, particularly among women and people of color who are currently underrepresented in the utility industry and building trades.

The program's first hands-on opportunity will be at the Sherco Solar project, beginning with approximately 75 participants in 2022. Sherco Solar is particularly well-positioned to support the pilot given its location in Becker, which is only 45 miles from Minneapolis and 20 miles from St. Cloud. Unlike other renewable development in the state, which is focused in far southern and western Minnesota, this Project is located in close proximity to the communities the Workforce Training and Development pilot is designed to serve. As a result, if the Project is delayed or not approved, there could be corresponding delays and ramifications for this new pilot program.

It is widely recognized that siting clean energy projects in legacy energy communities is not merely a best practice, but a best case for clean energy development. The common misconception of the energy transition is that the conventional energy workforce will find equivalent jobs installing solar and wind. In practice, however, such transitions are rare, not because workers lack the necessary skills, but because the clean energy employ few local workers, fail to pay family-supporting wages, are located hundreds of miles from legacy energy communities, or all of the above. Sherco Solar is the exception to this rule: a project that would create family-supporting jobs that are available to local workers who have spent their lives working in coal-fired generation but want to pursue clean energy careers. Sherco Solar demonstrates that utilities and regulators are willing to reinvest in communities that have helped to keep the lights on for generations, even if that means passing up a slightly cheaper project located in cornfields hundreds of miles away.

While comments filed by the OAG seek to diminish the benefits of the project to workers by comparing project construction payroll to Xcel's returns on the proposed Sherco Solar investment, this observation seems disingenuous inasmuch as Xcel's returns are considered in isolation and not in the context of viable alternatives. The OAG is presumably well aware that, if the need for solar capacity were met instead through a PPA, as they appear to advocate, the independent owner of the generation

resource would likely earn an equal or greater (unregulated) rate of return. The question for the Commission is not whether the owner of the generation expects to earn a profit, but rather what benefits the project provides to ratepayers and a society as a whole, including workers who have helped to keep the lights on for generations for whom Sherco could support just transition opportunities.

CONCLUSION

Sherco Solar is a critically important project to continue Minnesota's clean energy transition and do so in a way that actually helps make that transition more just and equitable. Recent developments only strengthen the case for approval of the project as a bird-in-hand that would deliver significant environmental and socioeconomic benefits while fully conforming with Commission policy in the context of current market conditions, and with reasonable assurance that the project would be completed as proposed. A delay will jeopardize Xcel's ability to deliver those benefits and likely result in higher, not lower costs. Accordingly, LIUNA urges the Commission to approve this Project as expeditiously as possible.

In the alternative, the Commission could respond to evidence of rising costs, volatility and uncertainty in solar markets by revisiting and potentially delaying planned coal plant requirements, as the Department seems to suggest. We do not, however, believe that it would be advisable to restart the decision-making process on the assumption that a new acquisition process will result in an equivalent project for a better price.

Dated: April 8, 2022