



414 Nicollet Mall
Minneapolis, MN 55401

December 21, 2023

—Via Electronic Filing—

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

RE: IN THE MATTER OF THE APPLICATION OF XCEL ENERGY FOR A SITE PERMIT FOR THE UP TO 250 MW SHERCO 3 SOLAR ENERGY GENERATING SYSTEM IN SHERBURNE COUNTY, MINNESOTA
DOCKET NO. E-002/GS-23-217

Dear Mr. Seuffert:

Northern States Power Company, doing business as Xcel Energy (“Xcel Energy”), submits these reply comments in response to certain comments received during the environmental assessment scoping comment period for the up to 250 MW solar project to be located in Sherburne County, Minnesota (“Project”). These reply comments primarily focus on:

- Comments related to a requested extension of the setback from the St. Marcus Cemetery in Clear Lake and the associated request to resize the Project’s boundaries;
- A comment regarding an easement to cross the Edling Farms property for the underground collector lines; and
- Comments submitted by the Minnesota Department of Natural Resources (“DNR”), in its November 21, 2023 letter, related to potential environmental impacts.

Questions and comments already addressed by the Project’s site permit application, those that can readily be addressed in the Environmental Assessment to be prepared by the Minnesota Department of Commerce Energy Environmental Analysis unit or those which are not relevant to siting decisions are not addressed in these reply comments.

1. Project setback distance and screening from St. Marcus Cemetery

Comments were provided expressing concerns that the proximity of the Project to the St. Marcus Cemetery would create negative visual impacts for visitors to the cemetery. Father Joseph Bakowski suggested that mitigation of visual impacts on the cemetery is necessary. His suggested mitigation includes a set-back of one-half mile from the cemetery together with extensive tree plantings between the Project and the cemetery. There is currently no setback and no screening between the cemetery and adjacent farming operations where the Project is proposed. In addition, a community solar garden was recently constructed to the west of the cemetery within the City of Clear Lake and there is currently an approximately 30-foot setback

from the cemetery property line with no screening between the solar garden and the cemetery (see Images 1 and 2). In fact, the City, as permitting agency for the solar garden, did not require vegetative screening next to the cemetery and only required vegetative screening along three residential and commercial parcels to the northwest of the solar garden.¹



Image 1: Photograph looking West from the St. Marcus Cemetery.



Image 2: Photograph looking South from the West side of the St. Marcus Cemetery.

Xcel Energy recognizes the concerns raised by church members and intends to work with Father Bakowski and the church community to develop a planting plan for vegetative screening

¹ City of Clear Lake Council Meeting Minutes, February 6, 2023. Available at https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fclearlakemn.govoffice2.com%2Fvertical%2Fsites%2F%257B14337A90-1B18-4760-BE97-C153C2C0ACB5%257D%2Fuploads%2FCOUNCIL_MINUTES_2-6-23.docx&wdOrigin=BROWSELINK (Accessed December 14, 2023)

between the cemetery and the Project to minimize visual impacts. However, Xcel Energy considers the currently designed setbacks as more than adequate to comply with local setback requirements as well as to allow an adequate vegetative screening plan.

As currently designed (Figure 1 below), the Project solar array is approximately 247 feet south of the southern St. Marcus cemetery property line and approximately 95 feet from the south-east corner of the St. Marcus cemetery property line. These setbacks are comparable to setbacks applied to some residences and residential buildings located near other portions of the Project which have approximately 250- and 280-foot setbacks from homes to the nearest solar arrays (See Appendix E of the Site Permit Application). Moreover, the Project's setbacks exceed Sherburne County's required setback of 50 feet from adjacent property lines as well as the City of Clear Lake's required setbacks which range between 10 and 50 feet from rear and side-yard property lines depending on the zoning district in which the solar array is located.

The Project's designed setbacks provide adequate spacing to implement a vegetative planting plan which will shield the view of the Project from within the cemetery. If the Project were to be set back one-half mile from the cemetery property line, it would effectively remove approximately 100 acres of solar arrays, or 15 MW, from the facility. Such a setback and loss of production would not only be detrimental to the Project, but would not be an efficient use of resources, especially considering how Xcel Energy's proposed setbacks from the cemetery and the provision of vegetative screening far exceed that which was approved and required by the City of Clear Lake for the adjacent community solar garden.



Figure 1. Project Setback at St. Marcus Cemetery

Xcel Energy’s Vegetation Management Plan indicated that Xcel Energy will work with adjacent landowners to determine the need for potential landscape screening areas consisting of trees and shrubs needed to disrupt the direct line of site between the nearby residence and the solar array. Table 1 in the Sherco Solar 3 Vegetation Management Plan (copied below) notes typical woody tree and shrub species that may be used in screening areas for the Project. Xcel Energy believes the plant selection and spacing, provided below in Table 1, installed along the southern and southeastern portions of the cemetery will be more than adequate to provide visual screening between the cemetery and the array. Xcel Energy will develop a screening plan in line with the Project’s Vegetation Management Plan.

Table 1. Representative Woody Plants for Sherco Screening

DECIDUOUS & CONIFEROUS TREES*			
Scientific Name	Common Name	Container Size	Spacing
<i>Crataegus arnoldiana</i> 'Homestead'	Homestead Arnold Hawthorn	10#	14' o.c.
<i>Juniperus virginiana</i>	Eastern Red Cedar	10#	15' o.c.
<i>Picea glauca</i> 'Densata'	Black Hills Spruce	10#	15' o.c.
<i>Pinus banksiana</i>	Jack Pine	10#.	15' o.c.
<i>Quercus macrocarpa</i>	Bur Oak	10#	15' o.c.
DECIDUOUS & CONIFEROUS SHRUBS			
Scientific Name	Common Name	Container Size	Spacing
<i>Amelanchier sanguinea</i>	Roundleaf Serviceberry	5#	6' o.c.
<i>Aronia melanocarpa</i>	Black Chokeberry	5#	6' o.c.
<i>Cornus racemosa</i>	Gray Dogwood	5#	6' o.c.
<i>Corylus americana</i>	American Hazelnut	5#.	6' o.c.
<i>Juniperus communis</i>	Common Juniper	5#	6' o.c.
<i>Prunus americana</i>	American Plum	5#	6' o.c.
<i>Rhus glabra</i>	Smooth sumac	5#	6' o.c.

*Vegetation species are representative of species that provide adequate screening. Other species may be considered that provide similar screening outcomes based on sourcing needs.

2. Underground collection corridor easements north of Highway 10

In a comment letter submitted on November 22, 2023, Mr. Jeff Edling, with Edling Farms, expressed concern about the potential for an electrical collection cable crossing his property for the Project. Mr. Edling was concerned about the potential for the collection cable to disrupt his farming operations and damage the soil for future production.

As noted in the Site Permit Application, Xcel Energy has identified two possible collection corridors from Unit 9 to Highway 10, shown in Figure 2 below (excerpted from Exhibit 2 of the site permit application). Both corridors are located along the edge of existing fields in order to minimize impacts to agricultural lands. Any cabling installed in the corridors would be buried underground. Xcel Energy has reached out to the owners of the land, including Mr. Edling and another landowner, crossed by each of the corridor options, to discuss the possibility of securing a voluntary easement across the property of one of the landowners. Easement discussions are

ongoing with both landowners and Xcel Energy is hopeful a voluntary agreement can be reached with one of the landowners prior to the initiation of construction. However, if a voluntary agreement has not been reached, Xcel Energy may elect to secure an easement and pay the affected landowner pursuant to an eminent domain proceeding.

Xcel Energy is sensitive to the concerns of Mr. Edling regarding the potential disruption of his farming operations and the potential impacts to his land. To help minimize the potential impacts to agricultural land, including Mr. Edling's farming operations and land, Xcel Energy prepared an Agricultural Impact Mitigation Plan, which provides means and methods of minimizing the impacts on agricultural soil (See Appendix F of the Site Permit Application). Xcel Energy will continue to coordinate with Mr. Edling and the other landowner regarding the potential to cross their property through a voluntary easement in a way to minimize short- and long-term impacts to the property of the owner whose property will be crossed by the collection infrastructure.

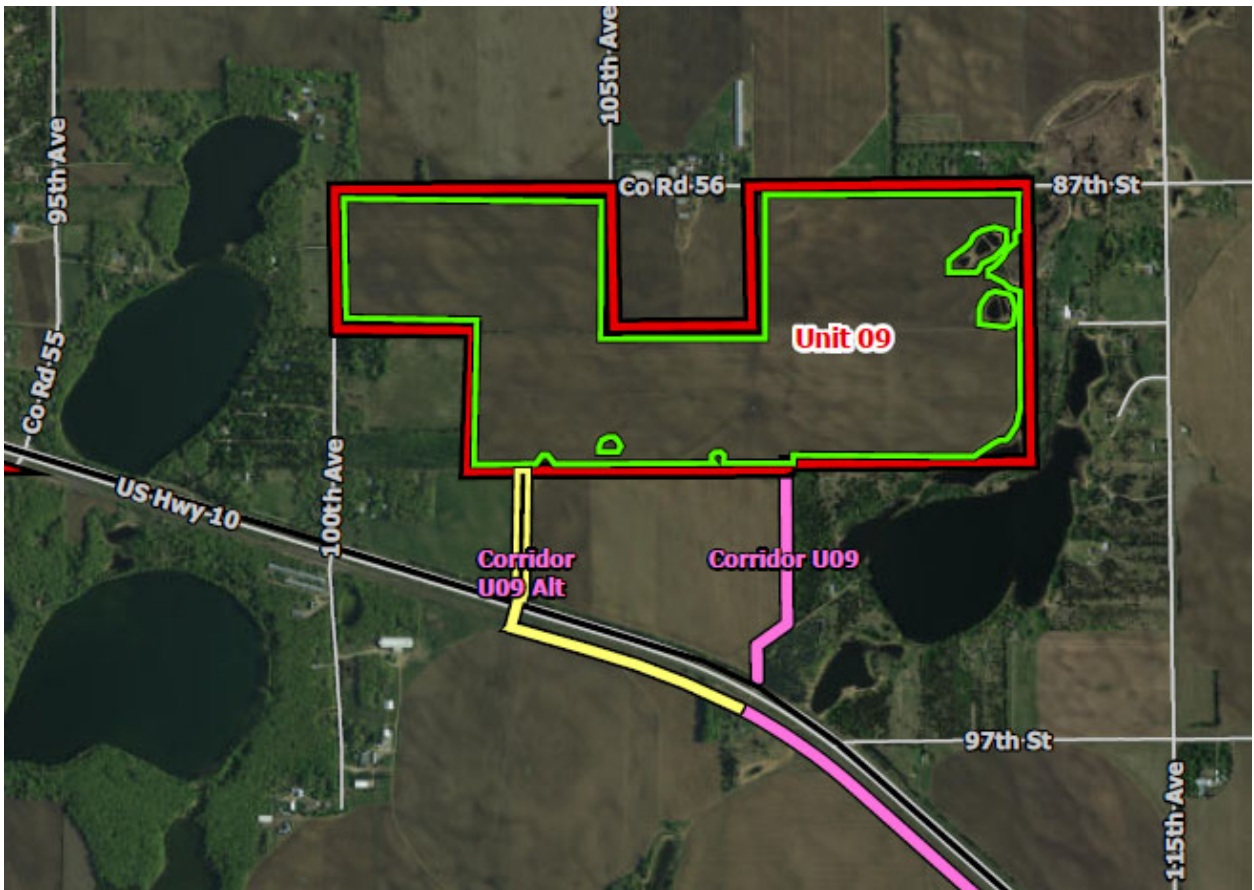


Figure 2. Collection Corridor Alternatives from Unit 09

3. MN DNR Comments

The DNR submitted a comment letter on November 21, 2023 on the following topics: security fencing, hydric soils, protected species, facility lighting and dust control. Their specific concerns and Xcel Energy's responses to each are discussed below.

a. Perimeter/Security Fencing

The DNR notes that, in the site permit application figures, it appears that the perimeter fencing is located within the 150' shoreland structure setback near Unit 02. The attached Perimeter Fencing figure shows the location of the perimeter fencing in relation to the 150' shoreland structure setback near Unit 02. At the location in question, on the east side of Unit 02, portions of the fence are located at or outside of the 150' shoreland structure setback. This structure setback will comply with the shoreland ordinance structure setback and will leave room between the fence and the waterbody for wildlife movement.

In addition, the Perimeter Fencing figure also shows locations Xcel Energy has identified for placement of J-hooks, which are mechanisms placed along the fence in strategic locations to redirect turtles and other wetland species back toward areas of safety and away from high use areas such as roads. J-hook locations were determined based on discussions and guidance provided by the DNR as part of the Sherco Solar Project.

b. Hydric Soils

The DNR pointed out that Table 3-9 of the application showed that there were 25.7 acres of hydric soils within the Project area, which could pose issues for site maintenance. This table includes leased land that is outside of the fenced area where facilities will be located. The attached figure Fence & Hydric Soils shows the actual amount of mapped hydric soils within the fence (i.e., the area of the Project that will be converted to solar array uses) totals 1.3 acres. Because these areas are difficult to see at the scale of the full project, inset maps have been included showing those areas at a larger scale. These mapped hydric soils are located outside of delineated wetlands. During the site grading process topsoils are removed and stockpiled before subsoils are borrowed and deposited to create a more level surface. Once site balancing is complete the topsoils are respread and de-compacted. Any potential for saturation or ponding in the non-wetland hydric soil areas that are corrected during construction will be effectively mitigated during this grading process. There will be no grading, installation of fencing or solar arrays within wetlands.

c. Protected Species Mitigations

As noted above, J-hook locations have been identified to protect turtles traveling to and from waterbodies and no facilities will be placed within delineated wetlands. Xcel Energy will follow the other avoidance and minimization measures as described by the DNR in its November 21, 2023 letter. If any tree or shrub clearing is necessary outside of the avoidance timeframes, Xcel will coordinate with the DNR and/or FWS to complete necessary surveys and acquire any necessary permits or approvals.

d. Facility Lighting

The DNR requested that facility lighting at the substation be MnDOT Approved Products for luminaries, which limits the Uplight rating to 0 and has a nominal color temperature below 2700K. Xcel Energy will investigate options for securing lighting that meets the DNR's requested specifications, but will ultimately utilize the same lighting being currently being installed on the already permitted Sherco West Collector Substation.

As indicated in the Site Permit Application, the substation facilities for the Project will consist of two inverters that will be co-located with the substation facilities for the Sherco West solar facility at the already permitted Sherco West Collector Substation, which is under construction. At the time the site permit application was filed for the Project, Xcel Energy did not have a detailed design of the two inverters and how they would be constructed within the Sherco West Collector Substation footprint. Xcel Energy now knows that the two inverters for this Project will be constructed directly adjacent to the two inverters constructed for the Sherco West facility with new switching gear being installed directly adjacent to the switching gear for the Sherco West facility. The two switchgears will connect before transmitting the power from the facilities on the already permitted Sherco West 345 kV High Voltage Transmission Line, which is also under construction. Considering that the substation equipment for both facilities will be co-located directly adjacent to one another within the Sherco West Collector Substation footprint, the substation lighting for the Project will match that which was required for the Sherco Solar Project, which is shielded downward-facing lights that minimizes blue hues.

e. Dust Control

The construction team will not use products that contain chloride for dust-control on site. Consistent with practices currently being used at the Sherco Solar Project, dust control will be completed with plain water. Cover crops will also be planted across the site to minimize dust.

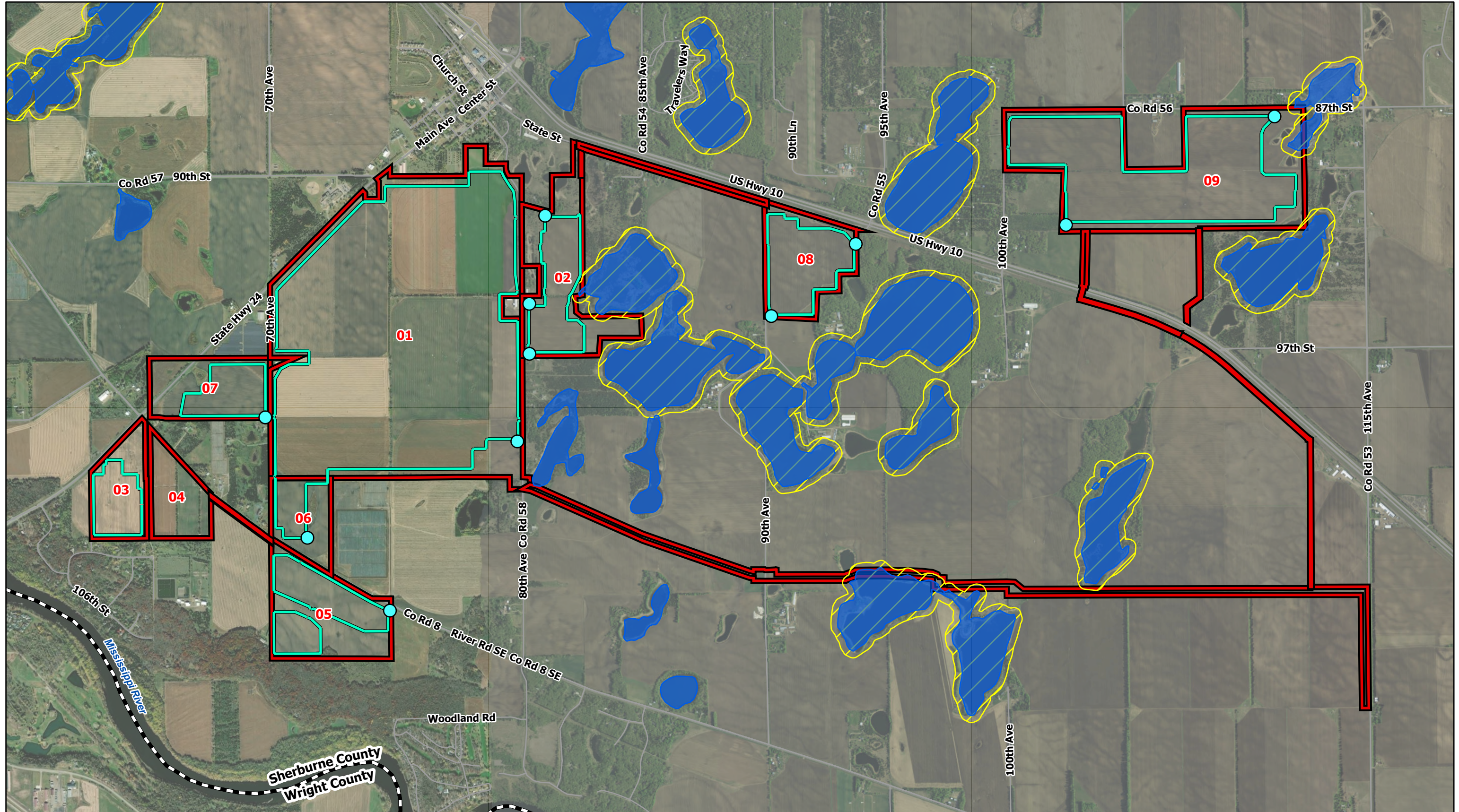
We have electronically filed these documents with the Commission. A copy of this filing is also being served upon the persons on the Official Service List of record. Please contact me at ellen.l.heine@xcelenergy.com or 612-330-6073 if you have any questions regarding this filing.

Sincerely,

/s/ Ellen Heine

ELLEN L. HEINE
PRINCIPAL SITING AND PERMITTING AGENT

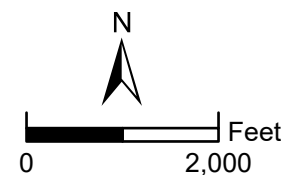
Enclosures
cc: Service List



Data Source(s): Westwood (2023); ESRI WMS
 USGS Topographic & World Streets Basemaps
 (Accessed 2023); U.S. Census Bureau (2021).

Legend

- Sherco Solar 3 Project Area
- Perimeter Fence
- PWI Basin
- 150' Shoreland Setback
- J-Hook Location
- Road
- County Boundary



Sherco 3 Solar Project

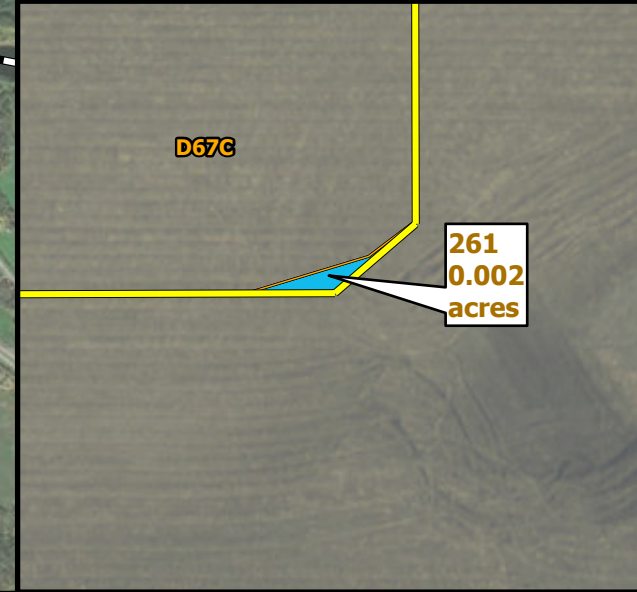
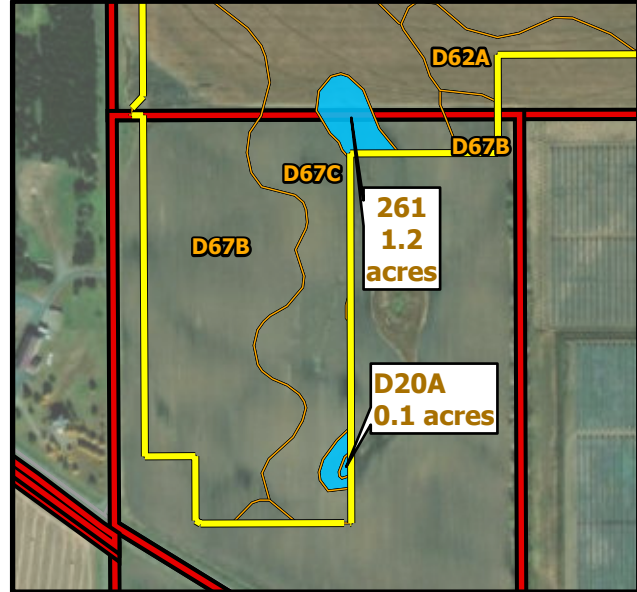
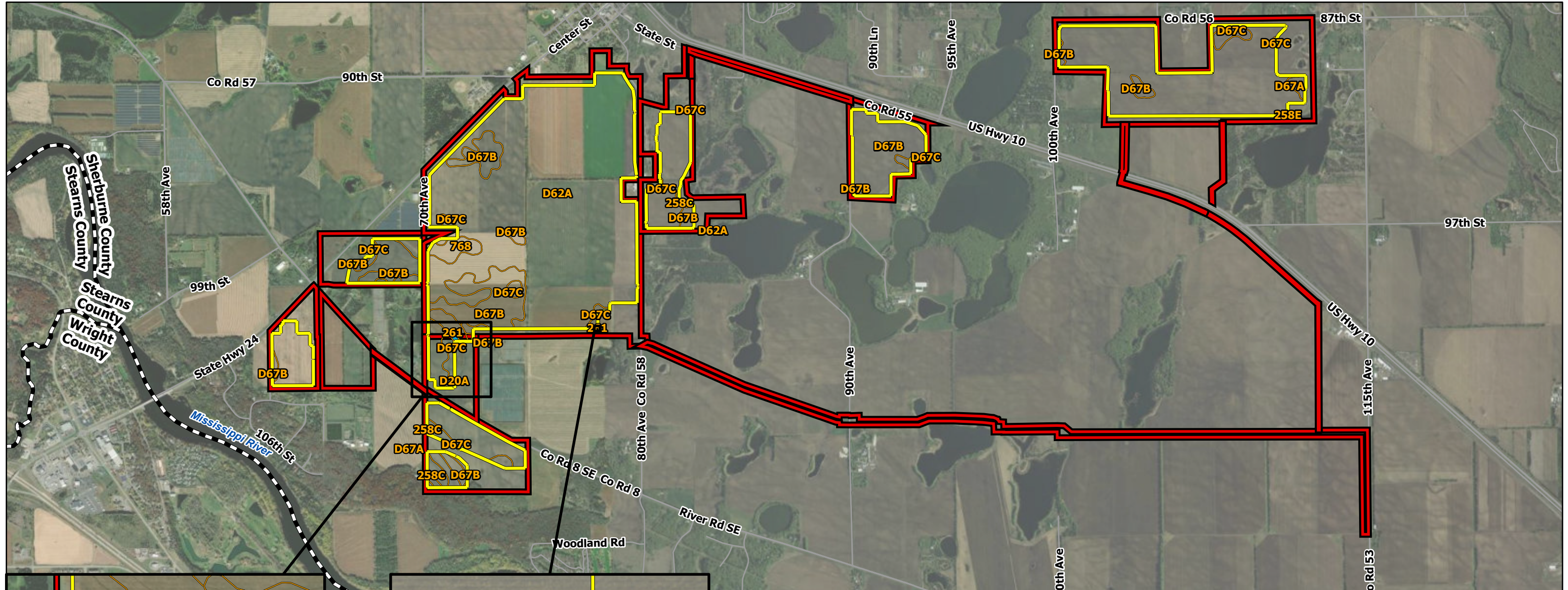
Sherburne County, Minnesota

Perimeter Fencing: Proposed J-Hook Locations & Shoreland Setback

Westwood

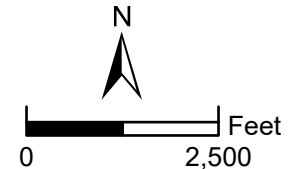
Toll Free (888) 937-5150 westwoodps.com
 Westwood Professional Services, Inc.

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Map Unit Symbol	Map Unit Name	Hydric Classification	Percent Hydric Soil	Acreage
258C	Sandberg loamy sand, 2 to 12 percent slopes	Predominantly Not Hydric	3	3.2
258E	Sandberg loamy coarse sand, 6 to 30 percent slopes	Not Hydric	0	0
261	Isan sandy loam, depressional, 0 to 1 percent slopes	Predominantly Hydric	98	1.2
768	Mosford sandy loam, 0 to 2 percent slopes	Predominantly Not Hydric	1	17
D20A	Isan-Isan, frequently ponded, complex, 0 to 2 percent slopes	Predominantly Hydric	95	0.1
D62A	Hubbard-Mosford complex, Mississippi River Valley, 0 to 3 percent slopes	Predominantly Not Hydric	1	1010.8
D67A	Hubbard loamy sand, 0 to 2 percent slopes	Predominantly Not Hydric	1	10.6
D67B	Hubbard loamy sand, 1 to 6 percent slopes	Predominantly Not Hydric	3	121.8
D67C	Hubbard loamy sand, 2 to 12 percent slopes	Not Hydric	0	43.7

- Legend**
- Sherco Solar 3 Project Area
 - Fence
 - Soil Unit Boundary
 - Predominantly Hydric Soil
 - Road
 - County Boundary



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**IN THE MATTER OF THE APPLICATION
OF XCEL ENERGY FOR A SITE PERMIT
FOR THE UP TO 250 MW SHERCO 3 SOLAR
ENERGY GENERATING SYSTEM IN
SHERBURNE COUNTY, MINNESOTA**

CERTIFICATE OF SERVICE

Docket No. E002/GS-23-217

Breann L. Jurek certifies that on the 21st day of December 2023, she e-filed on behalf of Xcel Energy a true and correct copy of the following documents:

1. Xcel Energy's Response to Scoping Comments; and
2. Certificate of Service

to the Minnesota Public Utilities Commission, via edockets (www.edockets.state.mn.us). Said document was also served on the Official Service List on file with the Minnesota Public Utilities Commission and as attached hereto.

Executed on: December 21, 2023

Signed: /s/ Breann L. Jurek

Fredrikson & Byron, P.A.
60 South Sixth Street
Suite 1500
Minneapolis, MN 55402

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_23-217_Official
Ian M.	Dobson	ian.m.dobson@xcelenergy.com	Xcel Energy	414 Nicollet Mall, 401-8 Minneapolis, MN 55401	Electronic Service	No	OFF_SL_23-217_Official
Adam	Duininck	aduininck@ncsrcc.org	North Central States Regional Council of Carpenters	700 Olive Street St. Paul, MN 55130	Electronic Service	No	OFF_SL_23-217_Official
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_23-217_Official
Stacy	Kotch Egstad	Stacy.Kotch@state.mn.us	MINNESOTA DEPARTMENT OF TRANSPORTATION	395 John Ireland Blvd. St. Paul, MN 55155	Electronic Service	No	OFF_SL_23-217_Official
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_23-217_Official
Nathaniel	Runke	nrunke@local49.org	International Union of Operating Engineers Local 49	611 28th St. NW Rochester, MN 55901	Electronic Service	No	OFF_SL_23-217_Official
Christine	Schwartz	Regulatory.records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_23-217_Official
Will	Seuffert	Will.Seuffert@state.mn.us	Public Utilities Commission	121 7th PI E Ste 350 Saint Paul, MN 55101	Electronic Service	Yes	OFF_SL_23-217_Official
Cynthia	Warzecha	cynthia.warzecha@state.mn.us	Minnesota Department of Natural Resources	500 Lafayette Road Box 25 St. Paul, MN 55155-4040	Electronic Service	No	OFF_SL_23-217_Official