Appendix B

Size Determination

AN ALLETE COMPANY

December 20, 2024

Mr. Ray Kirsch
Minnesota Department of Commerce
Energy Environmental Review and Analysis
85 7th Place East, Suite 280
Saint Paul, MN 55101-2198

Re: *Solar Energy Generating System Size Determination Request for Minnesota Power's Boswell Solar Project*

MPUC Docket No. E015/GS-24-425

Dear Mr. Kirsch:

In accordance with Minnesota Statute 216E.021, Minnesota Power submits the attached Solar Energy Generating System Size Determination Request for the Boswell Solar Project, a new up to 85-megawatt solar photovoltaic solar energy generating facility to be located in Itasca County, Minnesota. The area for the Boswell Solar Project is shown on the enclosed map.

Thank you for your time and consideration.

Drew Janke
Environmental Compliance Specialist II
Minnesota Power

Attachments: Solar Energy Generating System Size Determination Request

Preliminary Project Layout Map

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Boswell Solar Project - Solar Energy Generating System Size Determination Request

December 20, 2024

A. Project Description

Briefly describe the proposed project or projects, including name(s); need for the project(s); number of solar energy generating systems; alternating current nameplate capacity of the individual solar energy generating systems identified; and the combined alternating current nameplate capacity.

The Boswell Solar Project (Project) is a proposed solar energy generating facility comprised of approximately 178,000 photovoltaic (PV) solar panels and a nameplate capacity of 85-megawatts of alternating current. In Minnesota Power's 2021 Integrated Resource Plan (IRP), the Minnesota Public Utilities Commission (MPUC) approved a settlement that required Minnesota Power to procure up to 300 megawatts (MW) of regional solar energy. Minnesota Power conducted a Request for Proposal (RFP) to meet this IRP requirement with an emphasis on regional solar projects that are interconnected to Minnesota Power's system. The Project was selected through this RFP and will facilitate Minnesota Power's compliance with State of Minnesota's renewable energy and carbon-free standards under the Minn. Stat. § 216B.1691.

B. Project Design and Location

Provide the following information regarding each solar energy generating system:

B-1. Describe the 1) solar generating equipment and associated facilities; 2) project boundary location(s) (county, township, and sections); 3) the area within the project boundary (acres); and 4) area within the project boundary that will be developed for the solar project (acres).

The Project's primary components include PV panels mounted on a single-axis tracker racking system installed in linear arrays, centralized inverters, a Project substation, and a Gen-Tie Line. Associated facilities include electrical cables, conduit, switchgears, step-up transformers, SCADA systems, communications shelter, and metering equipment. The Project will include temporary and permanent laydown yards, internal Project access roads, weather stations, a stormwater management system, and security fencing and gates. The proposed Project is in the city of Cohasset, unincorporated Itasca County, and Leech Lake Band of Ojibwe (LLBO) Reservation, Minnesota, within Township 55N, Range 27W, Sections 1, 2, 11 and 12, and Range 26W, Sections 6, 7, 8, 9 and 18. The total proposed Project area is approximately 1,344.5 acres of privately owned land, of which 498.6 acres will be developed for the Project.

B-2. Describe the anticipated point of electrical interconnection. Describe interconnection requests and the status of each request. Provide any assigned project or queue interconnection numbers.

Minnesota Power intends to submit a Surplus Interconnection Request with Midcontinent Independent System Operator (MISO) for 85 MWac, seeking to share interconnection service with Boswell Unit 3, located at the Boswell 230 kV Substation. Minnesota Power intends to enter the Interconnection Request for Surplus Interconnection Service in the second quarter of 2025. The Surplus Interconnection Service process may take up to 270 calendar days to complete, at which time Minnesota Power expects to sign the Generator Interconnection Agreement (GIA).

B-3. Provide a map showing the proposed facility boundary, the interconnection site, anticipated solar module layout, and associated facilities. "Associated facilities" includes access roads, operation and maintenance facilities, collector and feeder lines, and substations. Maps should be at 1:24,000 scale using an imagery basemap. The map must include a legend and scale bar.

Project map attached.

C. *Project Characteristics*

Provide the following information regarding each solar energy generating system:

C-1. List and describe the entity responsible for constructing the project.

Minnesota Power is currently in the process of requesting and evaluating proposals for the construction of the Project.

C-2. List and describe the entity responsible for operating and maintaining the project.

Minnesota Power intends to operate and maintain the Project.

C-3. Describe the ownership structure, sales agreement(s), interconnection(s), revenue sharing, debt or equity financing, and any other characteristics of the solar energy generating system. Include a statement indicating whether these characteristics are "independent" or "shared." If shared, indicate with what existing or proposed project.

The Project, including the interconnection, revenue sharing, debt or equity financing, and physical components, will be independently owned by Minnesota Power. A portion of the Project infrastructure is proposed for location on privately owned land under a lease agreement between the landowner(s) and the Project.

C-4. Provide the anticipated schedule for completion, including dates for permitting, construction (start and end dates), and commercial operation.

The Project anticipates the following schedule:

Activity	Schedule
MPUC Permitting Application Filing	Q4 2024
Application for Surplus Interconnection Service with MISO	Q2 2025
Construct Solar Array	Q1 2026-Q2 2027
Conduct Commissioning/Start-up	Q2 2027
Begin Commercial Operations	Q3 2027

D. Applicant Information

D-1. Provide the name, address, email, and telephone number of the applicant and any authorized representative.

Minnesota Power authorizes the following individuals to receive communications related to the Project:

Minnesota Power:
Drew Janke, Environmental Compliance Specialist II
Telephone: 218-355-3569
Email: djanke@mnpower.com
30 West Superior Street
Duluth, MN 55802

ALLETE, Inc.:
Sarah Whiting, Attorney III
Telephone: 218-355-3033
Email: swhiting@allete.com
30 West Superior Street
Duluth, MN 55802

Taft Stettinius & Hollister:
Kodi Verhalen, Partner
Telephone: 612-977-8591
Email: kverhalen@taftlaw.com
2200 IDS Center 80 South 8th Street
Minneapolis, Minnesota 55402

D-2. Provide the name, address, e-mail, and telephone number of the person or persons who would prepare the application to the Public Utilities Commission or to a Minnesota county or local unit of government, if such an application would be prepared by an agent or consultant of the applicant.

Minnesota Power has contracted with Barr Engineering to assist with the preparation of the application to the MPUC.

Barr Engineering:
Tyler Conley, Project Manager/ Environmental Scientist
Telephone: 952-842-3632
Email: tconley@barr.com
4300 Market Pointe Drive, Suite 200
Minneapolis, Minnesota 55435

D-3. Briefly describe the applicant's business entity including its ownership and financial structure.

Minnesota Power is a public utility and an operating division of ALLETE, Inc.

D-4. Provide the Minnesota Secretary of State organizational ID number for the applicant business entity, all subordinate entities, and all solar developer entities involved with the project.

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D-5. Identify and provide contact information for the person or persons who would be the permittees, if different than the applicant, if the solar energy generating systems were permitted by the Public Utilities Commission or a Minnesota county.

The permittee for the Site Permit will be:

Minnesota Power
30 West Superior Street
Duluth, MN 55802

Contact Person: Drew Janke, Environmental Compliance Specialist II
30 West Superior Street
Duluth, MN 55802

Telephone: 218-355-3569
Email: djanke@mnpower.com

E. Other Projects in Minnesota

E-1. Identify any planned or existing solar energy generating system(s) in Minnesota in which the applicant, or a principal, partner, or affiliate of the applicant, has an ownership or other financial interest. Describe any facilities identified, including their location, alternating current nameplate capacity, and their interconnection requests.

Minnesota Power has ownership or other financial interest in the following solar energy generating systems in Minnesota:

Camp Ripley Solar, a 10 MWac facility located at 15000 Highway 115, Little Falls, MN. Camp Ripley Solar is located at Camp Ripley, a regional training facility for the Minnesota National Guard, and the power generated at the facility is directly integrated into Minnesota Power's distribution system.

Jean Duluth Solar Project, a 1.6 MWac facility located at 3525 Riley Road, Duluth, MN, and the power generated at the facility is directly integrated into Minnesota Power's distribution system.

Laskin Solar Project, a 5.6 MWac facility located at 5699 Colby Lake Road, Hoyt Lakes, MN, and the power generated at the facility is directly integrated into Minnesota Power's distribution system.

Sylvan Solar Project, a 15.2 MWac facility located 13200 21st Avenue SW, Pillager, MN, and the power generated at the facility is directly integrated into Minnesota Power's distribution system.

Regal Solar Project, a 119.5 MWac, permitted but not-yet-constructed, facility near the town of Rice, Benton County, MN. Regal Solar has an executed Generator Interconnection Agreement with the Midcontinent Independent System Operator, Inc. (MISO) for the project (MISO Project Number J1611). The Regal Solar Project is scheduled to begin construction in Q2 of 2026 and commercial operation in Q3 of 2027.

E-2. Identify any additional solar energy generating system(s) in Minnesota in which the applicant, or principal, partner, or affiliate of the applicant, has an ownership or other financial interest and is currently under construction or construction is planned to begin within 12 months of the proposed project(s) estimated completion date. Describe any facilities identified, including their location, alternating current nameplate capacity, and their interconnection requests.

No additional solar energy generating systems to report – all relevant facilities listed in response to Section E-1.

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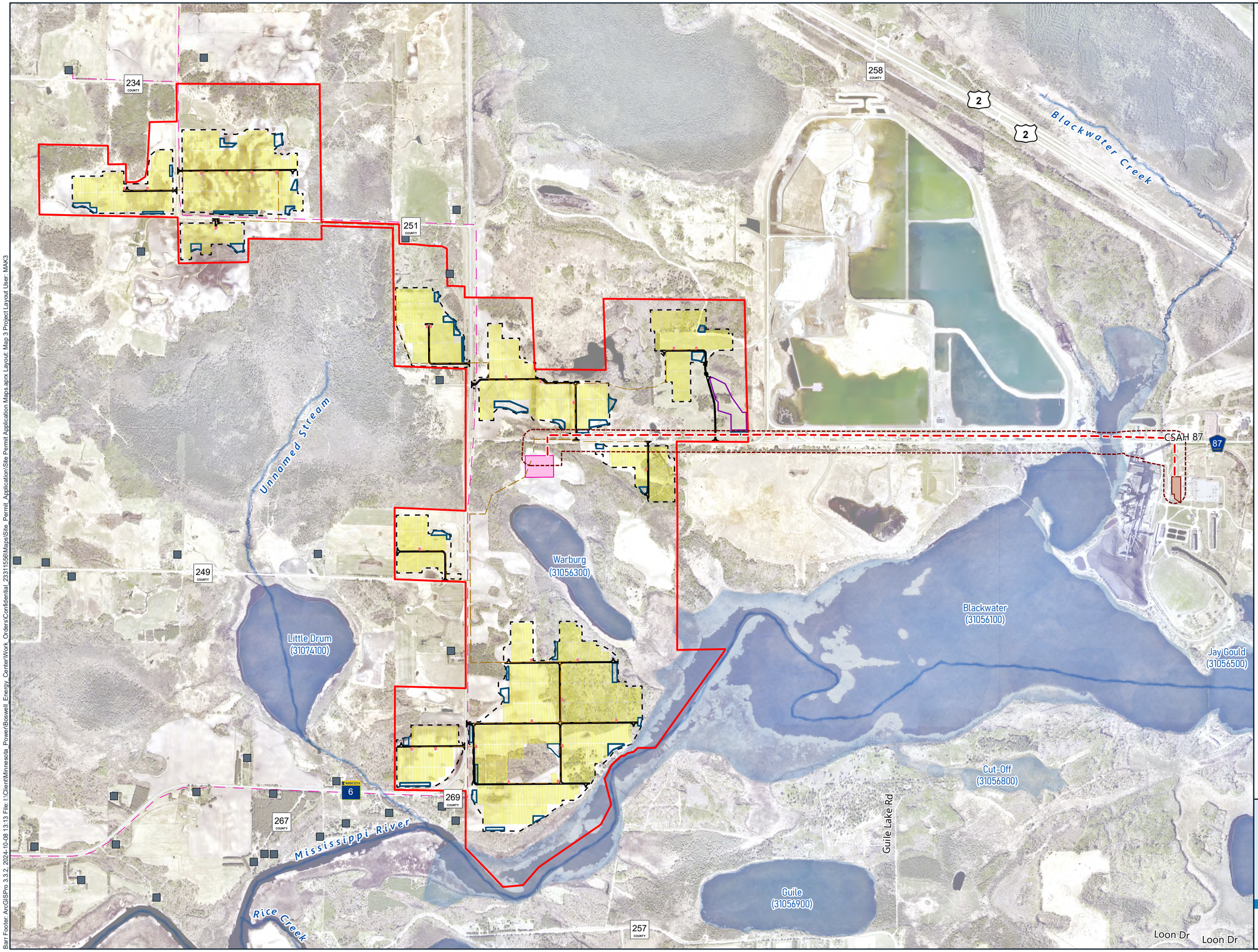
E-3. Identify any planned or existing solar energy generating system(s) in Minnesota which that shares any of the following with the proposed project: power purchase agreement, interconnection, sales, revenues, debt or equity financing, or other ownership or financial interests. Describe any facilities identified, including their location, alternating current nameplate capacity, and their interconnection requests.

No planned or existing solar energy generating systems share a power purchase agreement, interconnection, sales, revenues, debt or equity financing, or other ownership or financial interests with the Boswell Solar Project.

Please reach out to me at 218-355-3569 or via email at djanke@mnpower with any questions or concerns. Thank you for your time and consideration.

Drew Janke
Environmental Compliance Specialist II
Minnesota Power



Site
Gen-Tie Line
Route Width
Dwelllings
Access Roads
Inverters
Laydown Yard
Overhead Powerlines
Security Fence
Stormwater Basin
Underground Collection
BEC 2030kV Expanson Substation
Proposed Solar Array
Warberg Lake Substation Area

Public Watercourses

Public Water Watercourse
Public Waters Basins

0 1,500 3,000
Feet

Imagery: 2023 Itasca County

PROJECT LAYOUT
Site Permit Application
Minnesota Power

Map 3

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Barr Footer: ArcGISPro 3.3.2, 2024-10-08 13:13 File: I:\Client\Minnesota_Power\Boswell_Energy_Center\Work_Orders\Confidential_23311556\Maps\Site_Permit_Application\Site Permit Application Maps.aprx Layout: Map 3 Project Layout User: MAK3

COMMERCE DEPARTMENT

December 30, 2024

Drew Janke
Minnesota Power
30 West Superior St.
Duluth, MN 55802

Dear Mr. Janke,

Thank you for submitting a solar size determination request for Minnesota Power's proposed 85 megawatt (MW) Boswell solar project in Itasca County.

The Department is responsible for reviewing such requests to determine whether a combination of solar energy generating systems meets the definition of large electric power generating plant such that a proposed project is subject to the siting authority of the Minnesota Public Utilities Commission (Commission).

Based on information provided by Minnesota Power, and based on criteria established in Minn. Statute 216E.021, the Department has determined that the Boswell solar project is not associated with other planned solar projects in a way that would require them to be combined into a single project. However, given that the project on its own has a generating capacity of up to 85 MW, the Department determines that the project is subject to the Commission's siting authority and must submit an application for a site permit under the Power Plant Siting Act (Minnesota Statute 216E).

Per Minn. Statute 216E.021, Minnesota Power has the right to dispute this determination with the Chair of the Commission.

Please contact me with any questions.

Sincerely,

Ray Kirsch
Energy Environmental Review and Analysis

cc: Bret Eknes, Public Utilities Commission