

**ENVIRONMENTAL ASSESSMENT**  
**DRAFT EA SCOPING DOCUMENT**

**NORTH STAR SOLAR PV, LLC**  
**NORTH STAR SOLAR PROJECT**  
**PUC DOCKET no. IP6943/GS-15-33**

**April 2015**

**Prepared by the Energy Environmental Review and Analysis Staff of the**



## 1.0 INTRODUCTION

On January 29, 2015, North Star Solar PV, LLC (North Star) filed a letter<sup>1</sup> with the Public Utilities Commission (Commission) indicating its intent to submit a joint site and route application under the alternative permitting process (Minn. Rule 7850.2800-3900). On February 11, 2015, North Star submitted an application (Application)<sup>2</sup> to the Commission for the proposed 100 MW North Star Solar Project (Project) in Chisago County, which includes a one-half mile connecting 115 kV transmission line.

On February 18, 2015, the Commission issued a notice soliciting comments on the completeness of the combined site and route permit application for the Project. The comment period on completeness of the Application closed on March 4, 2015, and the Commission accepted the Application as complete at its meeting on April 9, 2014.

North Star proposes to construct 100 MW of photovoltaic (PV) solar generation in North Branch and in Lent and Sunrise townships. The Project would generate electricity from solar energy and is therefore eligible under 2014 Minnesota Session Laws, Chapter 254, Section 19 for review under the Alternative Permitting Process. The Project would be operational by the end of 2016.

## 2.0 PROJECT DESCRIPTION

The Project was proposed in response to Xcel Energy's Solar Request for Proposals (RFP) to help fulfill the Minnesota Solar Energy Standard which requires the company to serve 1.5 percent of its retail load with solar energy by the end of 2020. As a result of the RFP, Xcel Energy negotiated Power Purchase Agreements (PPA) with three of the competing proposals for a total of 187 MW. The three solar projects are (1) Marshall Solar, a 62.25 MW project located near Marshall; (2) MN Solar I, a 24.75 MW project located near Tracy; and (3) the North Star 100 MW Project near North Branch. Xcel Energy's "Solar Portfolio" (see eDocket no. E002/M-14-162) was approved by the Commission at the February 12, 2015, Agenda Meeting.

North Star has secured rights for 1,112 acres of agricultural land north of the Chisago Substation (see Project Boundary map below). The final Project design is expected to occupy approximately 800 acres within that boundary. The Project's primary components include PV modules mounted on a linear axis tracking system and solar inverters. The racking system foundations will utilize driven posts that for the most part would not require concrete. Other Project components include electrical cables, conduit, electrical cabinets, switchgears, step-up transformers, SCADA systems and metering equipment. The solar facility would be fenced and seeded in a low growth seed mix to reduce stormwater runoff and erosion.

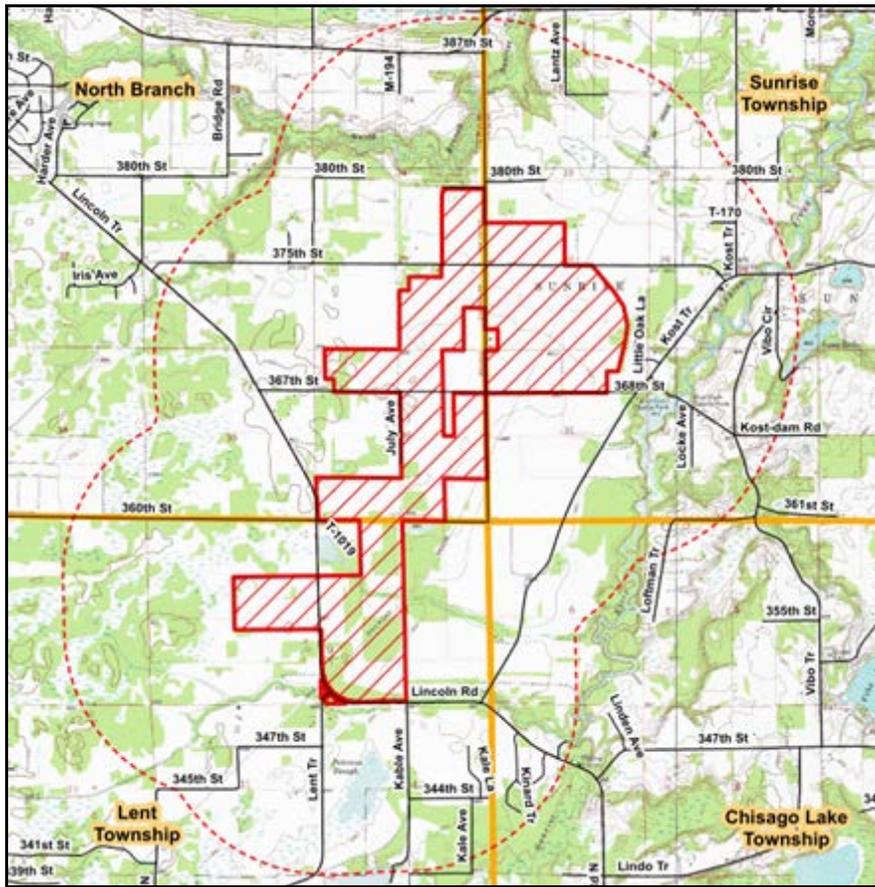
North Star expects to interconnect 100 MW of solar generation (accredited capacity of approximately 68 percent) at the 115 kV bus of the Chisago Substation in Lent Township (inside the southernmost portion of the Project boundary). This would require building approximately one-half mile of 115 kV line from the Project substation, across property owned by Xcel Energy to the Chisago Substation.

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<sup>1</sup> Notification of Intent to Submit Combined Site Permit Application and Route Permit Application as a Joint Proceeding, North Star Solar PV, LLC, January 29, 2015, eDocket no. [20151-106767-01](http://mn.gov/commerce/energyfacilities/resource.html?Id=34078)

<sup>2</sup> Joint Site and Route Permit Application, North Star Solar PV, LLC, February 11, 2015, <http://mn.gov/commerce/energyfacilities/resource.html?Id=34078>

### Project Boundary and One-Mile Buffer



## 3.0 REGULATORY PROCESS AND PROCEDURES

The size of the proposed Project meets the definition of a large energy facility requiring a Certificate of Need under Minnesota Statute 216B.2421, subd. 2. However, under Minn. Statute 216B.243, subd. 9, the proposed Project is exempt from the Certificate of Need requirement because it is a solar electric generating facility that is intended to be used to meet the obligations of Minn. Statute 216B.1691.

Minnesota Statute 216E.03, subd. 1 prohibits construction of a large electric generating plant without a Site Permit from the Commission. A large electric power generating plant is defined as electric power generating equipment and associated facilities designed for or capable of operation at a capacity of 50,000 kilowatts or more (Minnesota Statute 216E.01, subd. 5). Minnesota Statute 216E.03, subd. 2 prohibits construction of a high-voltage transmission line without a route permit from the Commission. A high voltage transmission line is defined as a conductor of electric energy and associated facilities designed for and capable of operation at a nominal voltage of 100 kilovolts or more and is greater than 1,500 feet in length (Minnesota Statute 216E.01, subd. 4).

Session Law 254 amended the types of projects that qualify for review under the alternative permitting process under Minnesota Statute 216E.04 to include large electric power generating plants powered by solar energy. Minnesota Statute 216E.04, subd. 2 (3), qualifies high-voltage transmission lines of 115 kV as eligible for review under the alternative permitting process.

In addition, Minn. Rule 7850.1600 allows the proposer of a large electric power generating plant that will also require a high voltage transmission line to apply for both a site permit for the large electric power generating plant and a route permit for the high voltage transmission line in one application and in one process.

Considering all of the above, North Star Solar PV, LLC has submitted a combined Application for a Site Permit and a Route Permit for review under the provisions of the Alternative Permitting Process as outlined in Minnesota Statute 216E.04 and Minn. Rule 7850.2800-3900.

#### ***Permit Application and Acceptance***

The Application must provide specific information about the proposed Project including, but not limited to, applicant information, site description, environmental impacts, alternatives and mitigation measures (Minn. Rule 7850.3100). The review process begins with the determination by the Commission that the Application is complete. Application acceptance allows initiation of the public participation and environmental review processes. The Commission has six months to reach a final decision on the site and route permits from the date the Application is determined to be complete. The Commission may extend this limit for up to three months for just cause or upon agreement of the Applicant (Minn. Rule 7850.3900).

#### ***Environmental Review***

Applications for site and route permits under the alternative permitting process are subject to environmental review, which is conducted by Energy Environmental Review and Analysis (EERA) staff under Minn. Rule 7850.3700. EERA staff provides notice and conducts a public scoping meeting to solicit public comments on the scope of an Environmental Assessment (EA). Following the close of the comment period, EERA staff will file comments on possible alternative site and route proposals with the Commission. Based on the information received during the scoping process, the Deputy Commissioner of the Department of Commerce will determine the scope of the EA.

An EA is a written document that describes the human and environmental impacts of the proposed Project (and selected alternative sites and routes) and methods to mitigate such impacts. The EA will be completed and made available prior to the public hearing.

#### ***Public Hearing***

Applications for site and route permits under the alternative permitting process require a public hearing upon completion of the EA. The hearing will be held in the Project area in accordance with the procedures provided in Minn. Rule 7850.3800. (The hearing is not a contested case hearing and is not conducted under Office of Administrative Hearings (OAH) Rule 1405.)

## **4.0 EA SCOPING PROCESS**

The purpose of the scoping process is to provide the public with an opportunity to participate in the development of the scope of the EA by holding public meetings and soliciting public comment. The public information/scoping meeting and the comment period listed below are your opportunity to participate in the determination of the content or “scope” of the EA.

Place	Meeting Location	Date and Time
Lent Township	Town Hall 33155 Hemingway Avenue	Thursday April 30, 2015 6:00 p.m.

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The meeting will inform the public about the project and the regulatory proceedings; provide a forum to discuss the environmental, social and economic issues of importance in the areas potentially affected; and gather public input into the scope of the EA to be prepared for the project. The meetings provide the public an opportunity to ask questions about the project and suggest alternatives to the proposed project and specific impacts that should be addressed in the EA.

Representatives of the Department, the Commission and the Applicant will be at the meeting to describe the proposed project and answer questions.

Written public comments can be submitted to the Department Energy Environmental Review and Analysis staff until **May 15, 2015**. Written comments should be sent to:

David Birkholz  
Minnesota Department of Commerce,  
85 7<sup>th</sup> Place, Suite 500,  
St. Paul, Minnesota 55101-2198  
[david.birkholz@state.mn.us](mailto:david.birkholz@state.mn.us)

A scoping decision will be made by the Department shortly after the close of the comment period. Persons who want to be advised of the Department's scoping decision can register their names with Commission staff at the public meeting, on the Commission's website ([mn.gov/puc](http://mn.gov/puc)) or contact Tracy Smetana at (651) 296-0406. The final scoping decision will also be posted on the eDockets website and the EERA website (<http://mn.gov/commerce/energyfacilities/Docket.html?Id=34064>).

## 5.0 DRAFT SCOPING OUTLINE

The Environmental Assessment on the North Star Project will address the following matters:

- 1.0 Introduction
  - 1.1 Project Description
  - 1.2 Project Purpose
  - 1.3 Sources of Information
- 2.0 Regulatory Framework
  - 2.1 Certificate of Need
  - 2.2 Site Permit
  - 2.3 Scoping Process
  - 2.4 Public Hearing
  - 2.5 Other Permits
  - 2.6 Issues outside the EA
- 3.0 Proposed Project
  - 3.1 Proposed Facility Location
  - 3.2 Alternative and Modified Sites\*
    - 3.2.1 Modifications of Proposed Facility Locations
    - 3.2.2 Alternative Sites Evaluated
    - 3.2.3 Alternative Sites Considered and Rejected
  - 3.3 Site and Route Requirements
  - 3.4 Project Design
  - 3.5 Project Construction
  - 3.6 Project Operation and Maintenance

#### 4.0 Potential Impacts of Proposed Project

##### 4.1 Human Settlement

- 4.1.1 Public Health and Safety
- 4.1.2 Displacement
- 4.1.3 Noise
- 4.1.4 Aesthetics
- 4.1.5 Socioeconomics
- 4.1.6 Cultural Values
- 4.1.7 Recreation
- 4.1.8 Public Services and Infrastructure
- 4.1.9 Land Use and Zoning

##### 4.2 Land Based Economies

- 4.2.1 Agriculture
- 4.2.2 Forestry
- 4.2.3 Tourism
- 4.2.4 Mining

##### 4.3 Archaeological and Cultural Resources

##### 4.4 Natural Environment

- 4.4.1 Air
- 4.4.2 Geology, Soils and Groundwater
- 4.4.3 Surface Water
- 4.4.4 Wetlands
- 4.4.5 Vegetation
- 4.4.6 Wildlife
- 4.4.7 Rare and Unique Natural Resources

#### 5.0 Unavoidable Impacts

#### 6.0 Irreversible and Irretrievable Commitments of Resources

#### 7.0 Application of Siting Factors

(\*) – If applicable

## **5.0 ALTERNATIVES TO BE ADDRESSED IN THE EA**

At this time, EERA staff is not recommending that any additional facility locations, other than those presented in the Site and Route Permit Application, be evaluated in the EA.

## **6.0 SCHEDULE FOR COMPLETION OF EA**

The tentative date for completion of the EA of the proposed project is September 2015.

Upon completion of the EA, Department staff will notify those persons who have asked to be notified of the completion. In addition, Department staff will publish notice of the availability of EA in the *EQB Monitor* (the bi-weekly newsletter of the EQB). The EA will be made available for review and will be posted in eDockets and on the Department's webpage. Comments on the EA may be submitted into the hearing record.

## 7.0 IDENTIFICATION OF PERMITS

The EA will include a list of permits and approvals that may be required for the Project proposers to construct this project.

Permits and Approvals	
Regulatory Authority	Permit or Approval
<b>Federal Approvals</b>	
U.S. Army Corps of Engineers	Wetland Delineation Approvals
	Jurisdictional Determination
	Federal Clean Water Act Section 404 and Section 10 Permit(s)
U.S. Fish and Wildlife Service	Review for Threatened and Endangered Species – informal coordination
Environmental Protection Agency (Region 5) in coordination with the Minnesota Pollution Control Agency	Spill Prevention Control and Countermeasure (SPCC) Plan
Lead Federal Agency	Federal Section 106 National Historic Preservation Act Review – will occur if Project triggers a federal nexus such as USACE individual permit
U.S. Department of Agriculture	Form AD-1006 Farmland Conversion Impact Rating – will occur if Project triggers a federal nexus such as USACE individual permit
U.S. Department of Agriculture	Conservation/Grassland/Wetland Easement and Reserve Program releases and consents
	Farm Services Agency Mortgage Subordination & Associated Environmental Review
Federal Energy Regulatory Commission	Exempt Wholesale Generator Self Cert. (EWG)
	Market-Based Rate Authorization
	Waiver of Open Access Transmission Tariff (OATT), Open Access Same-Time Information System (OASIS), and Standards of Conduct requirements applicable to transmission providers with respect to Seller’s ownership of generator interconnection facilities
Federal Aviation Administration	Form 7460-1 Notice of Proposed Construction or Alteration (Determination of No Hazard)
<b>State of Minnesota Approvals</b>	
Board of Water and Soil Resources	Wetland Conservation Act Approval
Minnesota Pollution Control Agency (MPCA)	Section 401 Water Quality Certification
	National Pollutant Discharge Elimination System Permit (NPDES) – MPCA General Stormwater Permit for Construction Activity – one per facility
	Very Small Quantity Generator (VSQG) License – Hazardous Waste Collection Program
	Aboveground Storage Tank (AST) Notification Form

Permits and Approvals	
Regulatory Authority	Permit or Approval
Minnesota Department of Health	Environmental Bore Hole (EBH)
	Water Supply Well Notification
	Plumbing Plan Review
Minnesota Department of Natural Resources	License to Cross Public Land and Water
Minnesota Department of Transportation (Mn/DOT)	Utility Permits on Trunk Highway Right-of- way
	Overweight Permit for State Highways – for transport of transformers, inverters
	Access Driveway Permits for Mn/DOT Roads
Minnesota Department of Labor and Industry	Building Plan Review and Permits
Minnesota Public Utilities Commission	Site Permit for Power Plant Site
	Exemption from Certificate of Need for Power Plant
Minnesota State Historic Preservation Office	Cultural and Historic Resources Review and Review of State and National Register of Historic Sites and Archeological Survey
<b>Local Approvals</b>	
Watershed District	Stormwater, drainage, floodplain permits
County	Right-of-way permits, road access permits, driveway permits for access roads and electrical collection system, Wetland Conservation Act Approval, parcel splits, platting
Township	Right-of-way permits, crossing permits, road access permits, and driveway permits for access roads and electrical collection systems, parcel splits, platting