

4 Alternative Sites

In developing the Project, Aurora considered constructing a single 100 MW solar facility, but rejected that alternative in favor of the perceived advantages of a distributed solar generation project. In its proposal submitted in the 2013 Competitive Resource Bid Geronimo identified 31 potential locations for solar facilities. As development of the Project continued, Aurora selected the proposed 24 facilities to move forward as part of the proposed Project.³⁵

The Aurora project is unique in several ways that potentially limit the range of alternative sites for the proposed project:

- Aurora does not have the right of eminent domain and must reach agreement with a willing landowner;
- Aurora has proposed use of PV) installations that follow the movement of the sun from through the day by using a tracking system. These types of installations require an amount of land that is relatively large compared to thermal energy generation; and
- The Aurora project has been designed to feed into Xcel Energy substations at a distribution level interconnect. Prior to submission of its proposal in the Competitive Resource Bid, Aurora identified Xcel Energy substations with available capacity and has applied to Xcel Energy for interconnection to the identified substations.

As discussed in Section 2.3, as part of the scoping process individuals, local governmental units, state and federal agencies and other organizations were provided the opportunity to request that specific alternative sites be included in the scope of the EA. Given the particular requirements of the Aurora project, EERA staff tried to solicit information on alternative sites by providing guidance to commenters as shown in Question 4 of the questionnaire sent to local governments:

Are there specific alternative locations for the proposed project or modification to the footprint of a proposed location that you believe should be evaluated in the Environmental Assessment prepared for this project? If proposing a specific alternative location, please consider some of the factors Aurora used in identifying the facility locations proposed in their application: (a) a landowner willing to sell or lease the parcel to Aurora; (b) an agricultural or undeveloped parcel with no known environmental constraints (e.g. wetlands, a Scientific and Natural Area) located within approximately 2 miles of an Xcel Energy substation; and (c) 7-10 acres of relatively flat terrain per megawatt of photovoltaic installation, with a minimum size of 13 acres.³⁶

³⁵ Application, at p. 19

³⁶ EERA, *Letter to Local Governments* August 29, 2014, eDocket Document ID: [20148-102675-01](#)

While several commenters expressed a desire for individual facilities to be sited in different locations, only one specific alternative site was identified for one facility.³⁷ Despite the lack of specific site alternatives, many commenters identified issues they believe should preclude construction of certain proposed facilities. Several of the local governments responding the survey indicated that the solar development proposed may be better suited to other unspecified areas in the general vicinity of the proposed location.³⁸

No landowners came forward during the scoping process to offer their land as an alternative site. Absent that information, EERA staff is unable to identify landowners who may be willing to make their land available to Aurora.

In developing alternative routes or route segments to transmission lines, EERA staff often works with commenters to identify and map potential routes that avoid or minimize anticipated impacts to be evaluated in comparison to the proposed route in an environmental review document. With the Aurora project, EERA staff did not believe it was appropriate to identify specific alternative sites for at least two reasons:

- Unlike transmission routes which would potentially limit the use a strip of property for the landowner, a solar facility would potentially remove up to 100 acres from the existing land use for several decades. Without the identification of a willing landowner, showing such an area on a map could understandably alarm some landowners; and
- As Aurora does not have the power of eminent domain, EERA staff did not believe that analysis of an alternative site where there is no indication of a willing landowner would assist the Commission in determining the best site for the proposed facility.

Given the difficulty in identifying alternative sites for evaluation this EA only addresses the human and environmental impacts associated with the facility locations identified in Aurora's Site Permit Application.

EERA staff used ARC GIS software to better visualize how each facility compares to a study area surrounding the Xcel Substation where the energy would be delivered. The study area

³⁷ One comment proposed moving the Chisago facility to the nearby Carlos Avery WMA.

³⁸ Oral Comments Received During Scoping, eDocket Document ID: [201410-103536-01](#), [103536-02](#), [201410-103536-03](#), [201410-103536-04](#), [201410-103536-05](#), [201410-103536-06](#); Local Government Scoping Comments, eDocket Document ID: [201410-103823-01](#), [201410-103823-02](#)[20147-101783-01](#), [20148-101994-01](#), [20148-102165-01](#), [20151-106839-01](#). Agency Scoping Comments, eDocket Document ID: [201410-103539-03](#); *EERA Comments to Commission on Site Alternatives*, October 14, 2014, eDocket ID: [201410-103827-01](#)

represents Minnesota land within 2.5 miles around each Xcel Substation.³⁹ The facility descriptions in Section 6 show the location of each facility within the study area, showing land cover, prime farmland and areas that, because of land use, land ownership or environmental constraints may be considered undesirable for development of solar facilities. EERA staff identified the following categories as generally undesirable for development of solar facilities:

- Public Lands including Scientific and Natural Areas (SNAs), Wildlife Management Areas (WMAs) and Waterfowl Production Areas (WPAs)'
- National Wetland Inventory (NWI) wetlands; and
- Areas classified as open water, developed, forest and wetland in the National Land Cover Database (NLCD).

It is important to note that siting of solar facilities is not necessarily precluded in these areas. Identification of these "Generally Incompatible Areas" is intended to serve as a very high level screening tool to better visualize how the proposed facility locations compare with the study area generally.

The analysis of the approximately 19.6 square mile study area for each facility does not identify any specific alternative sites for consideration in this proceeding, but is intended to inform the record as to the relative merits of particular facility locations.

³⁹ The potential development area is limited to Minnesota. The Hastings and Lawrence Creek facilities, because of their proximity to Wisconsin, have a slightly smaller potential development area.