

6.6 Dodge Center

The proposed Dodge Center facility has a capacity of 6.5 MW AC and is located in Section 32 of Wasioja Township in Dodge County. The site is located approximately one mile west of the city of Dodge Center, southwest of the intersection of 635th Street and 180th Avenue. Aurora anticipates that the facility will be accessed through a newly constructed drive off of 180th Avenue, just south of County Road H. Preliminary plans anticipate a development area of approximately 60 acres within the 68.5 acres of Aurora’s site control. Electricity from the facility will be delivered to Xcel Energy’s Dodge Center Substation, located approximately 1.1 miles east of the facility.

The facility is located within the Minnesota and Northeastern Iowa Morainal Section of the Eastern Broadleaf Forest Province. Land cover within the preliminary development area (Table 20) is dominated by cultivated crops (84 percent). While the study area around the Dodge Center Substation is also largely agricultural, the preliminary development area avoids the developed area located near Dodge Center, northeast of the city and the forested, wetland, and grassland areas located north and west of the facility (Figure 27).

Table 20: Dodge Center Facility Land Cover

Land Cover	Control Area		Development Area		Study Area	
	Acres	Percent	Acres	Percent	Acres	Percent
Open Water	-	-	-	-	21.8	0.2%
Developed, Open Space	3.4	4.9%	2.6	4.4%	1,090.9	8.7%
Developed, Low Intensity	1.8	2.7%	1.9	3.2%	712.4	5.7%
Developed, Medium Intensity	-	-	-	-	296.9	2.4%
Developed, High Intensity	-	-	-	-	103.4	0.8%
Barren Land	-	-	-	-	0.9	-
Deciduous Forest	1.7	2.5%	0.07	0.1%	580.7	4.6%
Evergreen Forest	-	-	-	-	4.5	-
Mixed Forest	-	-	-	-	-	-
Shrub/Scrub	-	-	-	-	14.7	0.1%
Grassland Herbaceous	5.2	7.5%	5.1	8.5%	868.7	6.92%
Pasture/Hay	0.7	1.0%	0.1	0.2%	517.4	4.1%
Cultivated Crops	55.7	81.4%	50.1	83.5%	7,897.1	62.9%
Woody Wetlands	-	-	-	-	421.1	3.4%
Emergent Herbaceous Wetlands	-	-	-	-	21.7	0.2%
Totals	68.5	100.0%	60.0	100.0%	12,552.2	100.0%

6.6.1 Effects on Human Settlement

The facility is located on a largely cultivated parcel with areas of grassland in a predominantly agricultural area with scattered rural residences. The nearest home is located approximately 50 feet north of the preliminary development area; based on the preliminary design the nearest home to the location of the PV arrays is approximately 230

feet to the northwest. Construction of the facility will not result in displacement of any homes or businesses. The facility is located in an area zoned as Urban Expansion District by Dodge County. Solar farms would be allowed as a conditional use in the Urban Expansion Zoning District.¹⁰⁵ The western edge of the parcel is a watercourse with Shoreland and Floodplain Overlays; county zoning requirements do not permit construction within a floodplain. The *Dodge County Comprehensive Plan (2001)* identifies the area as planned for unspecified future growth.¹⁰⁶

There is a snowmobile trail east of the proposed facility location. Construction and operation of the facility would not impact the use of nearby recreational resources.

No mitigation measures beyond those described in Section 5.2 are identified for the Dodge Center facility.

6.6.2 Effects on Land Based Economies

The proposed facility would remove approximately 50 acres of farmland from agricultural use. EERA staff is unaware of other solar facilities announced in the area of the proposed facility, so there is no indication that the conversion of land from agricultural uses would be part of a cumulative reduction of available land for crops or pasture.

Within the preliminary development area, 44 acres (73 percent) is considered to be prime farmland and 12 acres (20 percent) is considered to be prime farmland if drained (Table 13). Within the study area surrounding the Dodge Center Substation, approximately 53 percent qualifies as prime farmland and 39 percent qualifies as prime farmland if drained (Table 13). In order to avoid the developed area around Dodge Center, it is likely that any alternate locations would also be sited on prime farmland or prime farmland if drained (Figure 29).

The proposed project would not impact tourism, mining or mineral extraction activity, or forest resources of economic importance.

No mitigation measures beyond those described in Section 5.3 are identified for the Dodge Center facility.

6.6.3 Effects on Archaeological and Historic Resources

No archaeological sites were identified in a survey of the Dodge Center facility. No mitigation measures beyond those described in Section 5.4 are identified.

¹⁰⁵ Dodge County, Dodge County Zoning Ordinance, http://www.co.dodge.mn.us/departments/land_use.php, see Chapters 8 and 10.

¹⁰⁶ Dodge County comments

6.6.4 Effects on Natural Environment

There are no rivers, streams or lakes within the area of facility site control. Field delineations performed in the summer of 2014 show approximately 13.1 acres of wetlands within the area of land control; 0.18 acres of Type 2 (wet meadow) and 2.95 acres of Type 7 (wooded swamp).¹⁰⁷ As discussed in Section 6.6.5, impacts to the Southern Wet-Mesic Hardwood Forest in the southwestern portion of the facility are not permissible under Minnesota's Wetland Conservation Act.

The preliminary design for the facility anticipates grading of approximately 53.0 acres of the site during construction.¹⁰⁸

No mitigation measures beyond those described in Section 5.5 are identified for the Dodge Center facility.

6.6.5 Effects on Rare and Unique Natural Resources

A review of the NHIS database did not identify any documented instances of federally listed endangered or threatened species within the land control boundary of the Dodge Center facility. The NHIS database review did show records for two state-listed threatened species (Jointed Sedge (*Carex conjuncta*) and Wood Turtle (*Glyptemys insculpta*)) and one state-listed special concern species (Creek Heelsplitter (*Lasmigona compressa*)) within one mile of the area of site control for the facility.¹⁰⁹

Additionally, the southwestern portion of the facility's preliminary development area appears to overlap a mapped native community, Southern Wet-Mesic Hardwood Forest.¹¹⁰ Minnesota's Wetland Conservation Act would preclude development of the Southern Wet-Mesic Hardwood Forest of the preliminary development area.¹¹¹

As described in Section 5.6, a field survey of the Dodge Center facility would identify potentially impacted rare or unique natural resources.

As described in Section 5.5, the use of wildlife friendly mesh for erosion control can reduce the potential for reptiles becoming entangled that occurs with more typical types of erosion control mesh and ensuring that open trenches are inspected and trapped turtles are removed would minimize impacts to identified species.

¹⁰⁷ Appendix C

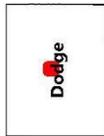
¹⁰⁸ Application, at Appendix F

¹⁰⁹ Application, at p. 81, Appendix I

¹¹⁰ Application, at p. 75

¹¹¹ MN Rule 8420.0515, Subp. 3, <https://www.revisor.mn.gov/rules/?id=8420.0515>

Figure 26: Dodge Center Project Detail



- Residence Location
- Proposed Inverter
- Proposed
- Proposed Road
- Proposed Grading Area
- Preliminary Development Area
- Facility Land Control
- Municipal Boundary



Figure 27: Dodge Center Land Cover Overview

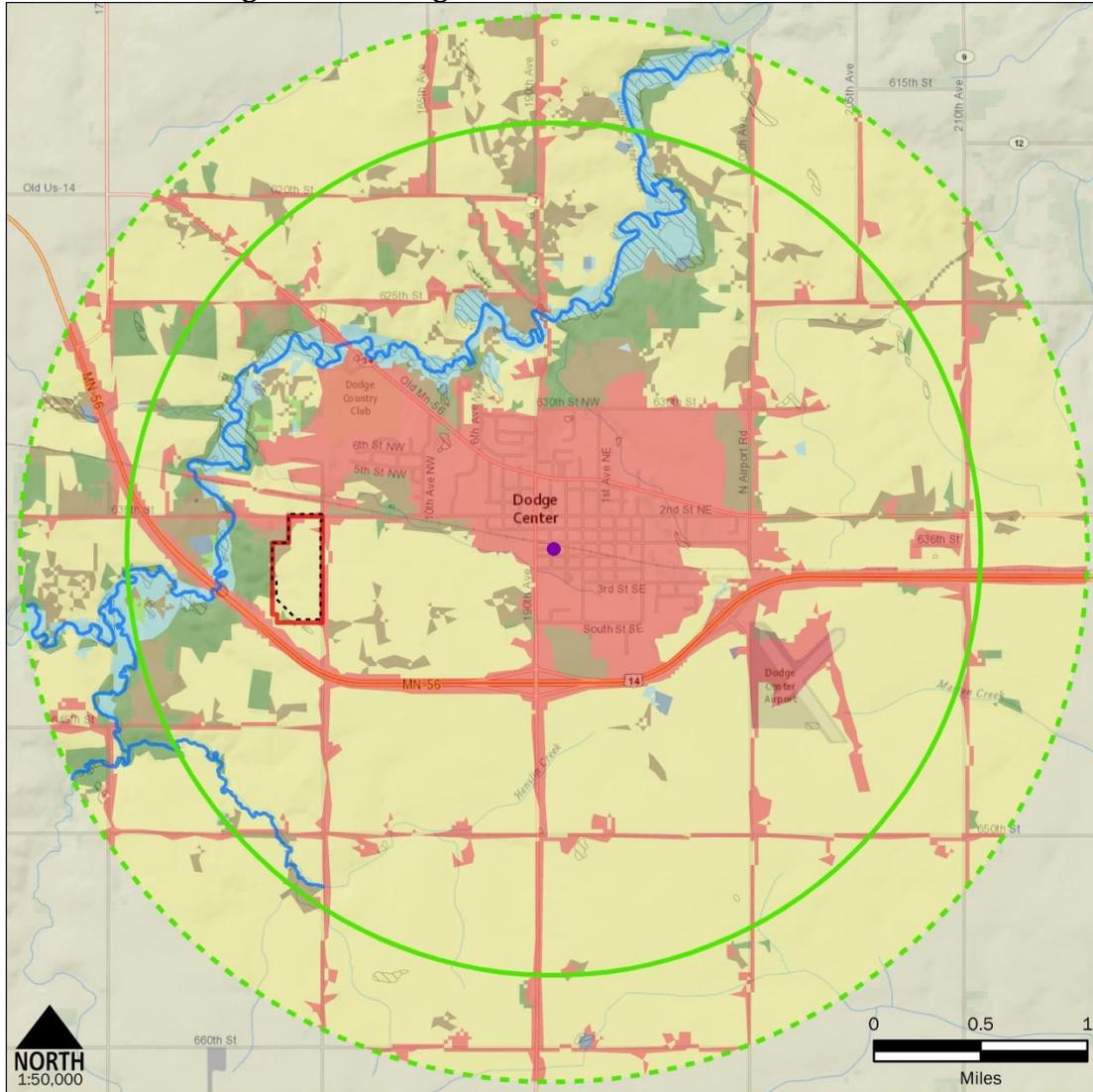
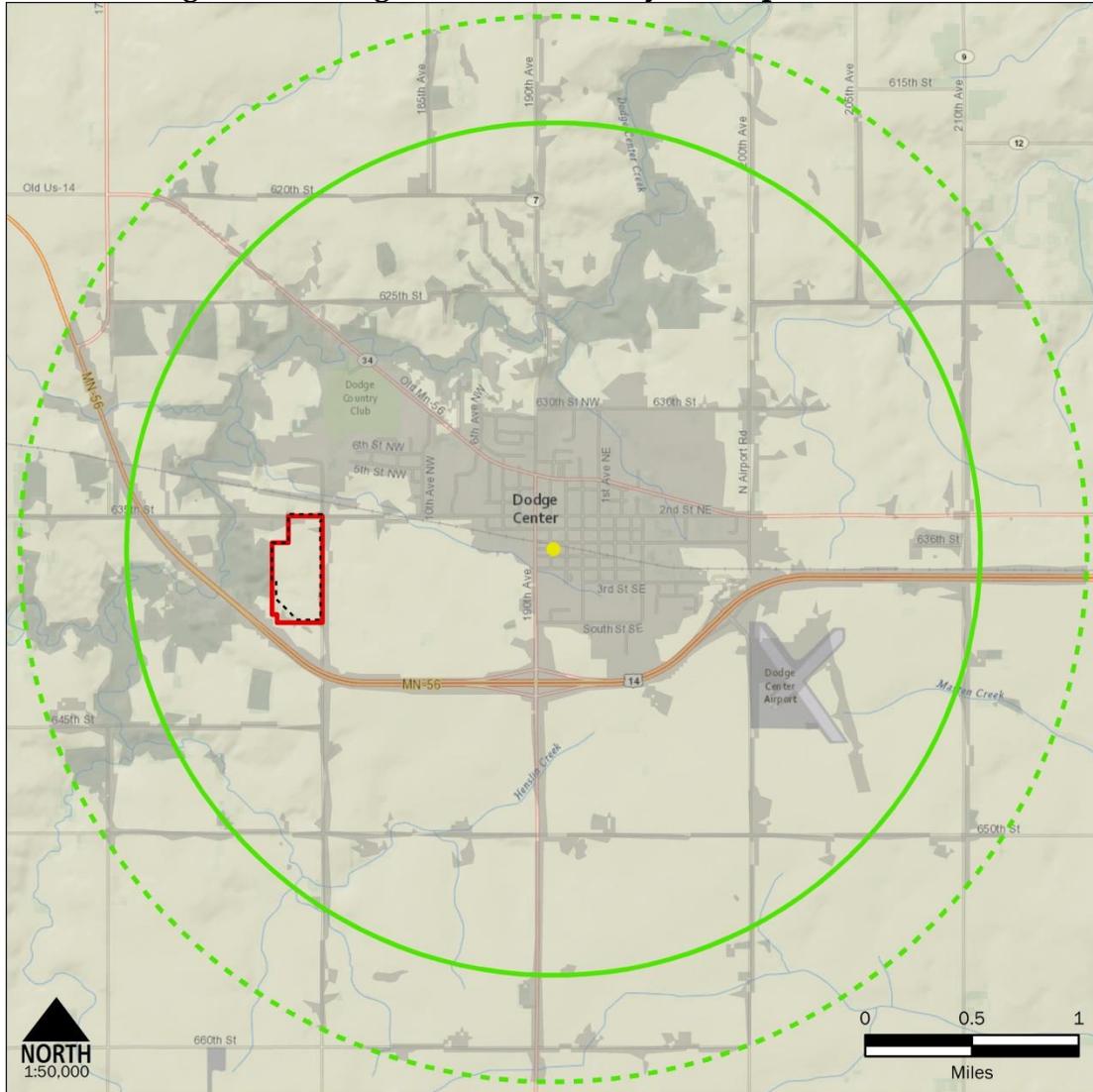


Figure 28: Dodge Center Generally Incompatible Areas



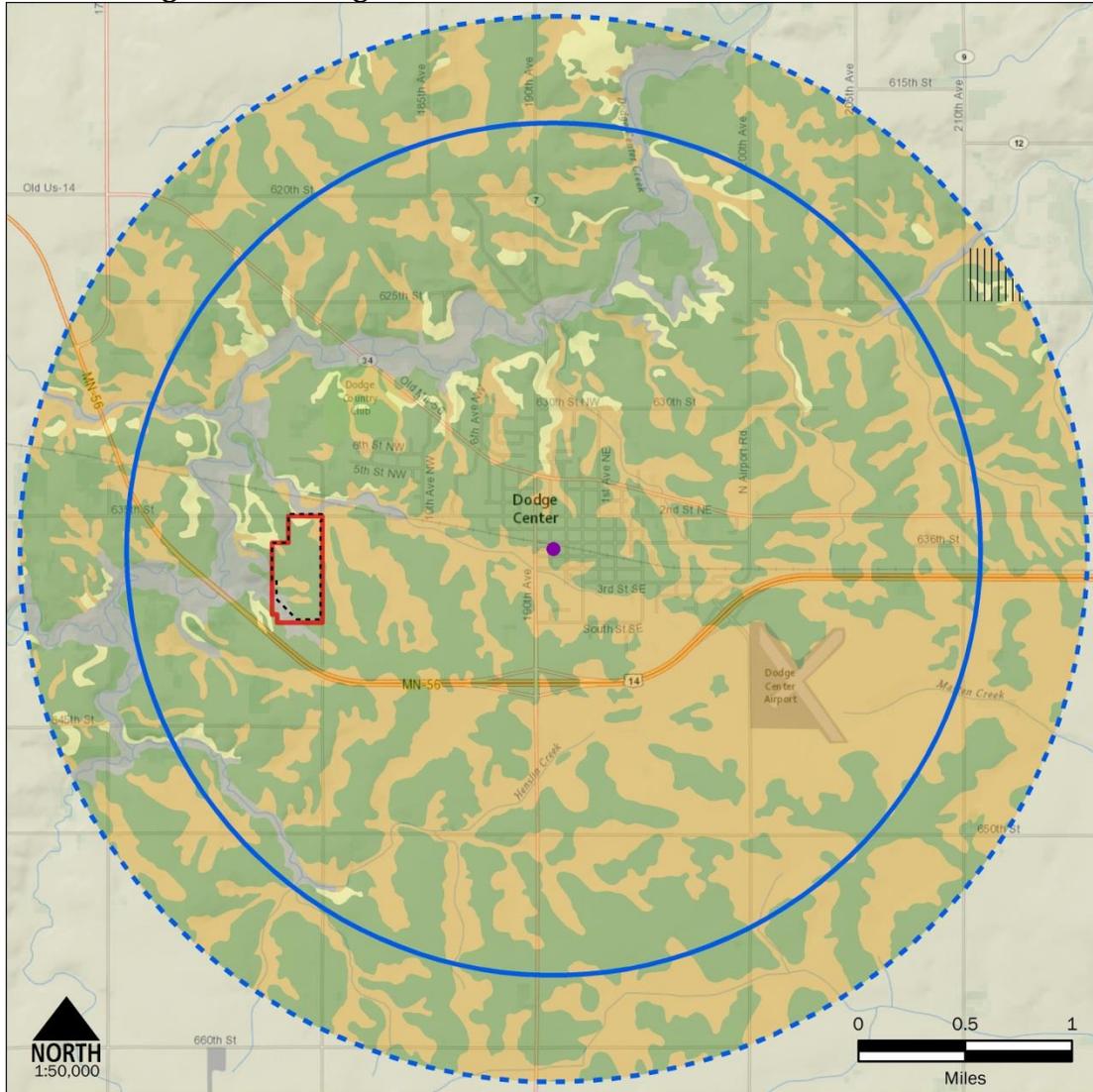
Dodge Center Facility Generally Incompatible Areas

- Substation
- Preliminary Development Area
- Facility Control Area
- 2-mile Analysis Buffer
- 2.5-mile Analysis Buffer
- Generally Incompatible Areas

“Generally Incompatible Areas” include: Minnesota Scientific and Natural Areas; Minnesota Wildlife Management Areas; US Fish and Wildlife Service Waterfowl Production Areas; the National Wetland Inventory; and areas classified as open water, developed, forest, and wetland in the National Land Cover Database.



Figure 29: Dodge Center Prime Farmland and Other Areas



**Dodge Center Facility
 Prime Farmland and Other Areas**

- Substation
- Preliminary Development Area
- Facility Control Area
- 2-mile Analysis Buffer
- 2.5-mile Analysis Buffer
- MN Wildlife Management Area
- Prime Farmland
- Prime Farmland if Drained
- Farmland of Statewide Importance
- Not Prime Farmland
- Other Farmland

