

# **Appendix B**

## **Summary of 2008 Site Permit Conditions**

Grand Meadow Wind Farm 2008 Site Permit (as Amended) Conditions Summary		
Permit Condition	Condition Summary	Condition Modification Request?
Cover	Brief project description and noted expiration date for the Site Permit.	Yes. Update the nameplate capacity of the wind farm to 108 megawatts (MW) and update permit expiration date to 25 years following the date of amended Site Permit issuance.
Section I	Defines the scope of the project authorized by the Site Permit.	Yes. Update the nameplate capacity of the wind farm to 108 MW and update the acreage of the Project boundary to 8,088 acres.
Section II	Project Description	Yes. Update the nameplate capacity of the wind farm to 108 MW and individual turbine capacity.
Section III	Conditions	NA.
A. General Construction Conditions		
A1. Site Plan	Prior to commencing construction, the Permittee shall submit to the PUC a site plan for all turbines, roads, electrical equipment, collector and feeder lines and other associated facilities to be constructed and engineering drawings for site preparation, construction of the facilities, and a plan for restoration of the site due to construction.	No. Xcel will submit repowering plans to the Commission prior to project repowering.
A2. Field Representative	Prior to the start of construction and continuously throughout construction and site restoration, the Permittee shall designate a field representative responsible for overseeing compliance with the conditions of this Permit.	No. Xcel will designate a field representative.
A3. Preconstruction Meeting	Prior to the start of any construction, the Permittee shall conduct a preconstruction meeting with the person designated by the PUC to coordinate field monitoring of construction activities.	No. Xcel will conduct a preconstruction meeting, if deemed necessary by the Commission.
A4. Notice of Permit Conditions	The Permittee shall inform all employees, contractors, and other persons involved in the construction of the LWECS of the terms and conditions of this Permit.	No.
B. Mitigation Measures		
B1. Site Clearance	The Permittee shall disturb or clear the site only to the extent necessary to assure suitable access for construction, safe operation, and maintenance of the LWECS.	No. Site clearing will be minimal and only to allow for temporary workspaces at turbine pads, crane paths, staging area, access road widening, and minor road upgrades for turbine delivery.
B2. Topsoil Protection	The Permittee shall implement measures to protect and segregate topsoil from subsoil in cultivated lands unless otherwise negotiated with the affected landowner.	No.
B3. Soil Compaction	The Permittee shall implement measures to minimize soil compaction of all lands during all phases of the Project's life and shall confine compaction to as small an area as practicable.	No.
B4. Livestock Protection	The Permittee shall take precautions to protect livestock during all phases of the Project's life.	No.
B5. Fences	The Permittee shall promptly replace or repair all fences and gates removed or damaged during all phases of the Project's life unless otherwise negotiated with the affected landowner. When the Permittee installs a gate where electric fences are present, the Permittee shall provide for continuity in the electric fence circuit.	No.

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B6. Drainage Tiles	The Permittee shall take into account the location of drainage tiles during project layout and construction. The Permittee shall promptly repair or replace all drainage tiles broken or damaged during all phases of the Project's life unless otherwise negotiated with the affected landowner.	No.
B7. Equipment Storage	The Permittee shall not locate temporary equipment staging areas on lands under its control unless negotiated with landowner. Temporary staging areas shall not be located in wetlands or native prairie.	No. Staging areas will be surveyed for wetlands and native prairie prior to construction.
B8(a). Public Roads	Prior to commencement of construction, the Permittee shall identify all state, county or township roads that will be used for the LWECS Project and shall notify the PUC and the state, county or township governing body having jurisdiction over the roads to determine if the governmental body needs to inspect the roads prior to use of these roads.	No.
B8(b). Turbine Access Roads	The Permittee shall construct the smallest number of turbine access roads it can. Access roads shall be low profile roads so that farming equipment can cross them and shall be covered with Class 5 gravel or similar material.	No. No new access roads will be required.
B8(c). Private Roads	The Permittee shall promptly repair private roads or lanes damaged when moving equipment or when obtaining access to the site, unless otherwise negotiated with the affected landowner.	No.
B9. Soil Erosion and Sediment Control	The Permittee shall develop a Soil Erosion and Sediment Control Plan prior to construction and submit the Plan to the PUC.	No. A SWPPP will be prepared and submitted in accordance with the requirements of the original site permit.
B10. Cleanup	The Permittee shall remove all waste and scrap that is the product of construction, operation, restoration and maintenance from the site and properly dispose of it upon completion of each task. Personal litter, bottles, and paper deposited by site personnel shall be removed on a daily basis.	No.
B11. Tree Removal	The Permittee shall minimize the removal of trees and the Permittee shall not remove groves of trees or shelter belts without notification to the PUC and the approval of the affected landowner.	No. Only minimal, if any, tree clearing is anticipated for crane movements.
B12. Restoration	The Permittee shall, as soon as practical following construction of each turbine, considering the weather and preferences of the landowner, restore the area affected by any LWECS activities to the condition that existed immediately before construction began, to the extent possible.	No.
B13. Hazardous Waste	The Permittee shall be responsible for compliance with all laws applicable to the generation, storage, transportation, clean-up and disposal of hazardous wastes generated during any phase of the Project's life.	No.
B14. Application of Herbicides	The Permittee shall restrict herbicide use to those herbicides and methods of application approved by the Minnesota Department of Agriculture and the U.S. Environmental Protection Agency.	No.
B15. Public Safety	The Permittee shall provide educational materials to landowners within the site boundaries and, upon request, to interested persons, about the Project and any restrictions or dangers associated with the LWECS Project.	No.
B16. Fire Protection	The Permittee shall prepare a fire protection and medical emergency plan in consultation with the fire department having jurisdiction over the area prior to LWECS construction.	No.
B17. Tower Identification	All turbine towers shall be marked with a visible identification number.	No.
C. Setbacks		
C1. Wind Access Buffer	Wind turbine towers shall not be placed less than 5 rotor diameters (RD) on the prevailing wind directions and 3 RD on the non-prevailing wind directions from the perimeter of the lands where the Permittee does not hold the wind rights, without the approval of the PUC.	Yes. Xcel requests the Commission waive the wind access buffer setback for 22 turbines, including turbines: 101-104, 106, 112, 115-119, 124, 126, 129-131, 133-135, 158-159, and 165.

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C2. Residences	Wind turbine towers shall not be located closer than 500 feet from the nearest residence, or the distance required to comply with the noise standards for Noise Area Classification 1, established by the MPCA (paragraph III.E.3), whichever is greater.	No.
C3. Roads	Wind turbine and meteorological towers shall not be located closer than 250 feet from the edge of the nearest public road right-of-way.	No.
C4. Wildlife Management Areas	Wind turbines and associated facilities including foundations, access roads, underground cable, and transformers, shall not be located in Waterfowl Production Areas, State Wildlife Management Areas or Scientific and Natural Areas or in county parks.	No.
C5. Wetlands	Wind turbines and associated facilities including foundations, access roads, underground cable and transformers, shall not be placed in public waters wetlands, as defined in Minnesota Statutes section 103G.005, subp. 15a.	No. Temporary construction workspaces will be surveyed for public waters and wetlands for avoidance in summer/fall 2021.
C6. Native Prairie	Upon request of the PUC, the Permittee shall, with the advice of the DNR, PUC and any others selected by the Permittee, prepare a prairie protection and management plan and submit it to the PUC and DNR Commissioner 60 days prior to the start of Project construction.	No. Temporary construction workspaces will be surveyed for native prairies for avoidance in summer/fall 2021.
C7. Sand and Gravel Operations	Wind turbines and all associated facilities, including foundations, access roads, underground cable, and transformers shall not be located within active sand and gravel operations, unless otherwise negotiated with the landowner with notice given to the owner of the sand and gravel operation.	No.
D. Preconstruction Surveys		
D1. Biological Inventory/Survey	The Permittee, in consultation with DNR and PUC, shall conduct a pre-construction inventory of existing Bluebird Prairie Wildlife Management Area, native prairies, wetlands, Kanaranzi Creek, CRP lands, publicly owned (county, state and federal) conservation lands and any other biologically sensitive areas within the site and assess the presence of state- or federally-listed or threatened species.	No. Temporary construction workspaces will be surveyed for biological resources in summer/fall 2021.
D2. Archaeological Resources	The Permittee shall work with the State Historic Preservation Office (SHPO) at the Minnesota Historical Society and the State Archaeologist. The Permittee shall carry out a Phase 1 or 1A Archaeology survey for all proposed turbine locations, access roads, junction boxes and other areas of project construction impact to determine whether additional archaeological work is necessary for any part of the proposed Project. The Permittee will contract with a qualified archaeologist to complete such surveys, and will submit the results to the PUC, the SHPO and the State Archaeologist.	No. Temporary construction workspaces will be surveyed for cultural resources in summer/fall 2021.
D3. Interference	Prior to beginning construction, the Permittee shall submit a plan to the PUC for conducting an assessment of television signal reception and microwave signal patterns in the Project area prior to commencement of construction of the Project.	No.
E. Site Layout Restrictions		
E1. Wind Turbine Towers	Structures for wind turbines shall be self-supporting tubular towers. The towers shall not be more than 80 meters (262 feet) above grade at hub height.	No.
E2. Meteorological Towers	Permanent towers up to 100 feet high for meteorological equipment shall be free standing. Temporary meteorological towers, which are those that will be removed no more than one year after the Project’s in-service data, and all meteorological towers over 100 feet height may be guyed if that landowner has given written permission and the guys are properly marked with safety shields.	No.
E3. Noise	The wind turbine towers shall be placed such that the Permittee shall comply with noise standards established as of the date of this Permit by the Minnesota Pollution Control Agency at all times at all appropriate locations.	No.
E4. Federal Aviation Administration	Towers shall be marked as required by the Federal Aviation Administration (FAA). There shall be no lights on the towers other than what is required by the FAA. This restriction shall not apply to infrared heating devices used to protect the wind monitoring equipment.	No.
E5. Turbine Spacing	The turbine towers shall be constructed within the site boundary as shown in Attachment 1. The turbine towers shall be spaced no closer than 3 RD in the non-prevailing wind directions and 5 RD on the prevailing wind directions. If required during final micro siting of the turbine towers to account for topographic conditions, up to 20 percent of the towers may be sited closer than the above spacing but the Permittee shall minimize the need to site the turbine towers closer.	No. The Repower Project’s internal spacing is 13 percent, below the 20 percent threshold.
E6. Footprint Minimization	The Permittee shall design and construct the LWECS so as to minimize the amount of land that is impacted by the LWECS.	No.
E7. Electrical Cables	The Permittee shall place electrical lines, known as collectors, and communication cables underground when located on private property.	No.

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E8. Feeder Lines	The Permittee shall place overhead or underground electric lines, known as feeders, within public rights-of-way or on private land immediately adjacent to public rights-of-way if a public right-of-way exists, except as necessary to avoid or minimize human, agricultural, or environmental impacts.	No.
E9. Aircraft Detection Lighting System (ADLS)	The Permittee shall install and employ an FAA-approved lighting mitigation system. Such a system shall use aircraft detection (aircraft detection lighting system, ADLS), dimming (light intensity dimming solution, LIDS) or other FAA-approved mitigation method. The Permittee shall describe the lighting mitigation system used for the project in its site plan.	Yes – additional condition.
F. Studies		
F1. Wake Loss Studies	The Permittee shall provide to the PUC with the site plan required by paragraph III.A.1. the preconstruction micro siting analysis leading to the final tower locations and an estimate of total Project wake losses. The Permittee shall provide to the PUC any operational wake loss studies conducted on this Project.	No.
F2. Noise	On request of the PUC, the Permittee shall submit a proposal to the PUC for the conduct of a noise study. Upon the approval of the PUC, the Permittee shall carryout the study. The study shall be designed to determine the noise levels at various distances from the turbines at various wind directions and speeds.	Yes. The Applicant requests the language be updated consistent with other recent projects “ <i>The Permittee shall file a proposed methodology for the conduct of a post-construction noise study at least 14 days prior to the pre-construction meeting. The Permittee shall develop the post-construction noise study methodology in consultation with the Department of Commerce. The study must incorporate the Department of Commerce Noise Study Protocol to determine the operating LWECS noise levels at different frequencies and at various distances from the turbines at various wind directions and speeds. The Permittee must conduct the postconstruction noise study and file with the Commission the completed post-construction noise study within 18 months of completion of the repowering project.</i> ”
G. Decommissioning/Restoration/Abandonment		
G1. Decommissioning Plan	Prior to commercial operation, the Permittee shall submit to the PUC a Decommissioning Plan documenting the manner in which the Permittee anticipates decommissioning the Project in accordance with the requirements of Minnesota Rules part 7836.0500, subp.13.	No.
G2. Site Restoration	Upon expiration of this Permit, or upon earlier termination of operation of the LWECS, the Permittee shall have the obligation to dismantle and remove from the site all towers, turbine generators, transformers, overhead and underground cables, foundations, buildings and ancillary equipment to a depth of four feet. To the extent possible the Permittee shall restore and reclaim the site to its pre-project topography and topsoil quality. The site shall be restored in accordance with the requirements of this condition within 18 months after expiration.	No.

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G3. Abandoned Turbines	The Permittee shall advise the PUC of any turbines that are abandoned prior to termination of operation of the LWECS. The PUC may require the Permittee to decommission any abandoned turbine.	No.
H. Reporting		
H1. Project Energy Production	<p>The Permittee shall, by July 15 of each year, report to the PUC on the monthly energy production of the Project and the average monthly wind speed collected at one permanent meteorological tower selected by the PUC during the preceding year or partial year of operation.</p>	<p>The Applicant requests the language be updated consistent with other recent projects “<i>The Permittee shall, by February 1st following each complete or partial year of project operation, file a report with the Commission on the monthly energy production of the project including:</i></p> <p><i>a.the installed nameplate capacity of the permitted project;</i></p> <p><i>b.the total monthly energy generated by the project in MW hours;</i></p> <p><i>c.the monthly capacity factor of the project;</i></p> <p><i>d.yearly energy production and capacity factor for the project;</i></p> <p><i>e.the operational status of the project and any major outages, major repairs, or turbine performance improvements occurring in the previous year; and</i></p> <p><i>f.any other information reasonably requested by the Commission. This information shall be considered public and must be filed electronically.”</i></p>
H2. Wind Resource Use	<p>Beginning the first full quarter following the commercial operation of the wind farm, the Permitted shall file a quarterly report (due January 15, April 15, July 15, and October 15) with the PUC with the following average hourly data for each hour of commercial operation in printed format or electronic format capable of computerized analysis as specified by the PUC. That data entails: (a) the power output of each turbine; (b) the wind speed and direction measured at all monitored heights at any temporary and permanent meteorological towers, connected to the SCADA system, owned or operated by the Permittee, in or within three miles of the Project site boundary; and (c) temperature and any other meteorological parameters recorded at one permanent meteorological tower selected by the PUC.</p> <p>After two years of commercial operation, the PUC may reduce or eliminate the requirements of this condition. The provisions of paragraph III.K.5, shall apply to the PUC’s review of this data.</p>	<p>Yes. The Applicant requests the language be updated consistent with other recent projects “<i>The Permittee shall, by February 1st following each complete or partial calendar year of operation, file with the Commission the average monthly and average annual wind speed collected at one permanent meteorological tower during the</i></p>



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		<i>preceding year or partial year of operation. This information shall be considered public and must be filed electronically.”</i>
H3. Extraordinary Events	Within 24 hours of an occurrence, the Permittee shall notify the PUC of any extraordinary event. Extraordinary events include but shall not be limited to: fires, tower collapse, thrown blade, collector or feeder line failure, injured LWECS worker or private person, kills of migratory, threatened or endangered species, or discovery of a large number dead birds or bats of any variety on site.	The Applicant requests the language be updated consistent with other recent projects “ <i>Within 24 hours of discovery of an occurrence, the Permittee shall notify the Commission of any extraordinary event. Extraordinary events include but shall not be limited to: fires, tower collapse, thrown blade, acts of sabotage, and injured worker or private person. The Permittee shall, within 30 days of the occurrence, file a report with the Commission describing the cause of the occurrence and the steps taken to avoid future occurrences.”</i>
H4. Complaints	Prior to the start of construction, the Permittee shall submit to the PUC the company's procedures to be used to receive and respond to complaints. The Permittee shall report to the PUC all complaints received concerning any part of the LWECS in accordance with the procedures provided in Attachment 2 of this Permit.	No.
<b>I. Final Construction</b>		
I1. As-built Plans and Specifications	Within 60 days after completion of construction, the Permittee shall submit to the PUC a copy of the as-built plans and specifications. The Permittee must also submit this data in a geographic information system (GIS) compatible format so that the PUC can place it into the Land Management Information Center’s geographic data clearinghouse located in the Office of Geographic and Demographic Analysis.	No.
I2. Final Boundaries	After completion of construction, the PUC shall determine the need to adjust the final boundaries of the site required for this Project.	Yes. The Applicant requests that the Commission approve a smaller Project boundary of 8,088 acres.
I3. Expansion of Site Boundaries	No expansion of the site boundaries described in this Permit shall be authorized without the approval of the PUC.	No.
<b>J. Authority to Construction LWECS</b>		
J1. Wind Rights	The Permittee shall advise the PUC of the obtaining of exclusive wind rights within the boundaries of the LWECS authorized by this Permit within 30 days of receiving such wind rights.	No.
J2. Other Permit Applications	Nothing in this Permit shall be construed to preclude any other person from seeking a site permit to construct a large wind energy conversion system in any area within the boundaries of the Project covered by this Permit if the Permittee does not hold exclusive wind rights for such areas.	No.
J3. Preemption of Other Laws	Pursuant to Minnesota Statute 216F.07, this Site Permit shall be the only site approval required for the location of this Project, and this Permit shall supersede and preempt all zoning, building, and land use rules, regulations, and ordinances adopted by regional, county, local, and special purpose governments. Nothing in this Permit shall release the Permittee from any obligation imposed by law that is not superseded or preempted by law.	No.
J4. Power Purchase Agreement	The issuance of a Certificate of Need for the Project satisfies the terms and requirements of Minnesota Rule 7836.1100, subp. 3, therefore no Power Purchase Agreement is required.	No.

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<b>K. Miscellaneous</b>		
K1. Periodic Review	The PUC shall initiate a review of this Permit and the applicable conditions at least once every five years.	No.
K2. Failure to Commence Construction	If the Permittee has not completed the pre-construction surveys required in paragraph III.D and commenced construction of the LWECS within three years of the issuance of this Permit, the Permittee must advise the PUC of the reason construction has not commenced.	No.
K3. Modification of Conditions	After notice and opportunity for hearing, this Permit may be modified or amended for cause including but not limited to the following: (a) Violation of any condition in this Permit; (b) Endangerment of human health or the environment by operation of the facility; or (c) Existence of other grounds established by rule.	No.
K4. Revocation or Suspension of the Permit	The PUC may take action to suspend or revoke this Permit upon the grounds that: (a) A false statement was knowingly made in the application or in accompanying statements or studies required of the Permittee, and a true statement would have warranted a change in the PUC’s findings; (b) There has been a failure to comply with material conditions of this Permit, or there has been a failure to maintain health and safety standards; or (c) There has been a material violation of a provision of an applicable statute, rule or an order of the PUC.	No.
K5. Proprietary Information	Certain information required to be submitted to the PUC under this Permit, including energy production and wake loss data, may constitute trade secret information or other type of proprietary information under the Data Practices Act or other law and is not to be made available by the PUC.	No.
K6. Transfer of Permit	The Permittee may not transfer this Permit without the approval of the PUC. If the Permittee desires to transfer this Permit, the holder shall advise the PUC in writing of such desire.	No.
K7. Other Permits	The Permittee shall be responsible for acquiring any other federal, state, or local permits or authorizations that may be required to construct and operate a LWECS within the authorized site. The Permittee shall submit a copy of such permits and authorizations to the PUC upon request.	No.
K8. Site Manager	The Permittee shall designate a site manager who shall be the contact person for the PUC to contact with questions about the LWECS.	No.
K9. Notice to Local Residents	The Permittee shall, within ten working days of receipt of this Permit, send a copy of the Permit to the office of the auditor of each county in which the site is located and to the clerk of each city and township within the site boundaries. If applicable, the Permittee shall also, within 10 working days of issuance, send a copy of this Permit to each regional development commission, local fire district, soil and water conservation district, watershed district, and watershed management district office with jurisdiction in the county where the site is located. Within 30 days of issuance of this Permit, the Permittee shall send a copy of the Permit to each affected landowner within the site. In no case shall the affected landowner receive the site permit and complaint procedure less than five days prior to the start of construction on their property.	No.
K10. Right of Entry	The Permittee shall allow representatives of the PUC to perform the following, upon reasonable notice, upon presentation of credentials and at all times in compliance with the Permittee’s site safety standards: (a) To enter upon the facilities easement of the site property for the purpose of obtaining information, examining records, and conducting surveys or investigations; (b) To bring such equipment upon the facilities easement of the property as is necessary to conduct such surveys and investigations; (c) To sample and monitor upon the facilities easement of the property; and (d) To examine and copy any documents pertaining to compliance with the conditions of this Permit.	No.
K11. More Stringent Rules	The PUC’s issuance of this Site Permit does not prevent the future adoption by the PUC of rules or orders more stringent than those now in existence and does not prevent the enforcement of these more stringent rules and orders against the Permittee.	No.
<b>L. Expiration Date</b>	This Permit shall expire on December 31, 2040.	Yes. The Applicant requests that the expiration date for the permit be changed to 25 years following the date of permit amendment issuance.
<b>M. Special Conditions</b>	Special conditions shall take precedence over any of the other conditions of this Permit if there should be a conflict between the two. No special conditions have been identified.	No.