


Staff Briefing Papers

Meeting Date	September 30, 2021	Agenda Item *1
Company	Northern States Power Company	
Docket No.	IP-6646/WS-07-839	
	In the Matter of the Site Permit Amendment Application of Northern States Power Company for the Grand Meadow Wind Farm Repower Project in Mower County, Minnesota	
Issue	Should the Commission grant the site permit amendments as requested?	
Staff	Cezar Panait	Cezar.Panait@state.mn.us 651-201-2207

 Relevant Documents	Date
Site Permit Amendment Application (20 parts)	May 27, 2021
DOC EERA Comments on Application Completeness and Draft Site Permit	June 24, 2021
PUC Sample Wind Site Permit	June 30, 2021
Notice of Public Information Meeting and Comment Period	July 2, 2021
MN DNR Comments	August 2, 2021
LIUNA Comments	August 3, 2021
MnDOT Comments	August 3, 2021
DOC EERA Recorded Public Meeting Notes (2 parts)	August 5, 2021

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The attached materials are work papers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.



Relevant Documents

Date

Xcel Energy Reply Comments

August 17, 2021

DOC EERA Comments on Permit Amendment Application

September 3, 2021

I. Statement of the Issues

Should the Commission grant the site permit amendments as requested?

II. Project Description

Northern States Power Company, doing business as Xcel Energy (Xcel or Applicant) proposes to repower the existing 100.5 megawatt (MW) Grand Meadow Wind Farm (Project) located in Mower County, Minnesota. The Applicant is proposing to repower all 67 existing turbines by installing new rotors with longer blades and replacing components within the existing nacelles (gear box, drive train, and associated parts). Xcel Energy has stated it will attempt to utilize existing infrastructure to the extent possible, but there may be changes to existing infrastructure to accommodate the repowering process, such as widening temporary and permanent access roads, crane paths, and a temporary laydown area to serve as a parking lot during construction. An additional 80 acres of land (not previously part of the permitted project boundary) located within the town of Dexter will be used for a new O & M facility and potential laydown areas.

The repowered turbines will involve increasing the rotor diameter (RD) from 77 meters (252.6 feet) to either 91 meters (298.6 feet) or 97 meters (318.2 feet). Xcel Energy is proposing to repower the 67 existing GE 1.5 MW turbines with GE 1.6 MW turbines. All repowered turbines will have a 1.6 MW generating capacity and will maintain the current hub height of 80 meters (262 feet). Xcel Energy will repower 15 turbines with 91-meter rotors and 52 turbines with 97-meter rotors. The repower involves installing rotors with longer blades and replacing components of the existing nacelles. The existing turbine towers and foundations will remain the same. The repower was developed specifically to upgrade existing turbines to a more efficient configuration, facilitate quick upgrading, and extend turbine service life. Upon repowering, the total turbine height will increase approximately by 23 feet from 389 to 412 feet for some turbines and by 33 feet from 389 to 422 for the balance of turbines. Rotor diameter will also increase approximately by 46 feet from 253 to 299 feet and by 65 feet from 253 to 318 respectively.

The Project's nameplate capacity will increase slightly from 100.5 MW to 107.2 MW but the Generation Interconnection Agreement (GIA) with MISO will remain the same at 100.5 MW. The repowering will increase the capacity factor for the Project to approximately 43.5 percent, which will result in annual average energy production of 396,865 MWh, a 23.5 percent increase from the existing GE 1.5 MW base case. The Repower Project boundary has been reduced to 8,088 acres from the 2008 Site Permit area of 16,704 acres, but Xcel Energy is negotiating with additional landowners for wind rights-only leases to accommodate the 3RD x 5RD Wind Access Buffer setback for the longer blades.

Xcel Energy has owned and operated the Project for the past 13 years, which otherwise is operating as planned and has a Site Permit set to expire on December 31, 2038. The amendment sought by Xcel Energy for the Site Permit will allow it to repower all 67 turbines which will increase energy production from the facility, improve overall reliability, and extend the service life of the turbines. Xcel Energy would like to complete the work during the 2023

construction season and is currently targeting the second quarter of 2023 for construction start. The work is anticipated to take 6-7 months, with commercial operation by December 31, 2023.

The following table (Table 5.2-1 in the application) provides a wind turbine characteristics comparison between the old turbines and the new turbines being proposed:

Table 5.2-1: Wind Turbine Characteristics Comparison			
Design Feature	Existing GE 1.5 sle Wind Turbines	Proposed Repowered GE 1.6 sle Wind Turbines	
Nameplate Capacity	1.5 MW	1.6 MW	
Hub Height (m, ft) ¹	80 m (262.5 ft)	80 m (262.5 ft)	
Total Height (m, ft) ²	118.5 m (389 ft)	125.4 m (411.7 ft)	128.5 m (421.6 ft)
Rotor Diameter	77 m (252.6 ft)	91 m (298.6 ft)	97 m (318.2 ft)
Turbine Positions	67	15	52
Design Life	Minimum 20 years	Minimum 20 years	
Cut-in Wind Speed (m/s) ³	3 m/s (6.7 mph)	3 m/s (6.7 mph)	
Power Regulation	The rotor utilized blade pitch regulation and variable speed operation to achieve optimum power output at all wind speeds. Unit is also equipped with low voltage ride through technology for demanding reliability standards.	The rotor utilized blade pitch regulation and variable speed operation to achieve optimum power output at all wind speeds. Unit is also equipped with low voltage ride through technology for demanding reliability standards.	
Power Generation	1.5 MW per turbine	1.6 MW per turbine	
Tower	Multi-coated, conical tubular steel with safety ladder to the nacelle	Multi-coated, conical tubular steel with safety ladder to the nacelle	
Nacelle Bedplate	2 part – cast iron front part; girder structure rear part	2 part – cast iron front part; girder structure rear part	
Main Bearings	Spherical roller bearings	Spherical roller bearings	
SCADA System	Each turbine equipped with SCADA controller hardware, software and database storage capability.	Each turbine equipped with SCADA controller hardware, software and database storage capability. A SCADA upgrade is planned that will help implement feathering up to cut in	

¹ Hub height=the turbine height from the ground to the top of the nacelle

² Total height = the total turbine height from the ground to the tip of the blade in an upright position

³ Cut-in wind speed = wind speed at which turbine begins operation

		speed measure and potential noise reduction operations.
FAA Lighting	Standard FAA lighting with the potential for ADLS technology	Standard FAA lighting with the potential for ADLS technology

III. Statutes and Rules

Site Permit Issuance. Under Minn. Stat. § 216F.03, the siting of a large wind energy conversion system will be done in an orderly manner compatible with environmental preservation, sustainable development, and the efficient use of resources.

Under Minn. Stat. § 216F.04 (d), the Commission may place conditions in a permit and may deny, modify, suspend, or revoke a permit. Section 13 of the Grand Meadow LWECs Site Permit provides that the “permit may be amended at any time by the Commission in accordance with Minn. R. 7854.1300, subp. 2.”

Permit Amendment. Minn. R. 7854.1300, subp. 2, provides that the Commission may amend a site permit for a large wind energy conversion system at any time if the Commission has good cause to do so.

IV. Procedural History

On May 27, 2021 Xcel Energy filed a site permit amendment application to repower the 100.5 MW Grand Meadow Wind Farm Project.

On June 24, 2001, the Department of Commerce Energy Environmental Review and Analysis (DOC EERA or Department) provided comments on application completeness, recommendations on the review process, and introduced a draft sample permit.

On June 30, 2021, Commission staff filed a sample wind site permit in the docket.

On July 2, 2001, Commission issued a Notice of Public Information Meeting and Comment Period for the in-person public meeting held on July 19, 2021 in Dexter, MN followed by a virtual public meeting on July 20, 2021.

On August 2, 2021, MN DNR submitted comments.

On August 3, 2021 LIUNA Minnesota & North Dakota submitted comments.

Also on August 3, 2021, MnDOT submitted comments.

On August 5, 2021, DOC EERA filed the meeting notes from each of the public meetings.

On August 17, 2021, Xcel Energy submitted reply comments.

On September 3, 2021, DOC EERA submitted comments and recommendations on the Permit Amendment Application.

V. Agency, Party, and Public Comments

Department of Commerce, Energy Environmental Review and Analysis

DOC EERA submitted initial comments on application completeness and the review process on June 24, 2021. The Department concluded that the site permit amendment application contained sufficient information necessary to begin the review process and recommended the Commission review the application using the “partial repowering” process as described in Table 1 of the comments.⁴ DOC EERA also submitted a Draft Sample Permit to be used by state and local agencies and the public to comment on and propose special permit conditions, where applicable.

DOC EERA staff has prepared this draft site permit based on the Commission’s LWECS site permit template and on recent permit amendments. Commission staff has modified the permit template to reflect the proposed repowering, including portions of the template where variances may be required for the project.

Minnesota Department of Natural Resources

The Minnesota Department of Natural Resources (DNR) filed comments on the Project on August 2, 2021 addressing the Mower County Management Snowmobile trail which is funded through a grant-in-aid (GIA) cost sharing program administered by DNR Parks and Trails. The site permit amendment application states that crane paths will cross this snowmobile trail during construction, resulting in temporary impacts. DNR advised that the best way to avoid impacts to snowmobile trails is to avoid construction activity from December 1 through April 1. If this timeframe is not feasible, the applicant will need to coordinate with the appropriate trail contact(s) early on to allow time to accommodate any trail route changes.

DNR also stated the site permit amendment application also acknowledges that Turbine 157 is within 165 feet of the Mower County Management Snowmobile Trail. This distance is less than the 250-foot setback established by the Public Utilities Commission (Commission) from recreational trails. Although snowmobilers have safely used this trail during the operation of the existing Grand Meadow Wind Farm, DNR cautioned that there is a potential for snowmobiler injury due to ice throw.

Minnesota Department of Transportation

MnDOT submitted comments on the Project on August 3, 2021 indicating that any temporary roadway signage used during project construction should be made and placed in a way that can

⁴ DOC EERA Comments, pg. 3, Document ID# [20216-175357-01](#)

withstand winter wear, if applicable. MnDOT has been made aware of failing/falling signage during winter months on several large energy projects within the state. MnDOT's District Traffic Engineers can assist the Applicant with this process when construction coordination efforts commence. Also, MnDOT indicated that if the Applicant finds that changes/upgrades to the existing collection system crossing I-90 or Trunk Highway (TH) 16 need to be made, appropriate permit applications would need to be submitted in a timely manner. Because MnDOT's highway construction activities could impact the Applicant's plans to haul oversize loads to the proposed site, the Applicant will need to coordinate with MnDOT when planning such loads. MnDOT District Specialists should be given the opportunity to participate in pre-construction meetings as they apply to MnDOT owned property.

Lastly, should the PUC issue an amended Site Permit for this project, early coordination with MnDOT staff is strongly encouraged. Any MnDOT permits applied for as a part of the Grand Meadow Wind Farm Project will not be issued until the PUC has issued an approved, amended Site Permit for this project. All applicable permitting, traffic control and construction coordination efforts should be made through MnDOT's District 6 Engineering Specialists.

LIUNA Minnesota & North Dakota

On August 3, 2021, LIUNA submitted comments stating it was their belief that this repower project will provide significant benefits to ratepayers, as well as to the regional economy by maximizing the use of local labor and utilizing skilled local tradesmen and women to build the project. The project will help Xcel meet its carbon reduction goals and efficiently use existing interconnection rights, while minimizing risks associated with operations and decommissioning.

Xcel's proposal to use local union labor for the Grand Meadow Wind Farm Repower Project will guarantee significant socio-economic benefits to the region. This commitment maximizes the positive socio-economic benefits of this project.

VI. Reply Comments

Xcel Energy

On August 17, 2021, Xcel Energy submitted reply comments.

Responding to DNR comments

Xcel indicated that the current plan does not include construction over the winter months, but they will coordinate with trail contacts should that be necessary.

MnDOT response

Xcel Energy indicated they have reviewed MnDOT's comments regarding signage and additional permitting coordination and will engage with MnDOT to ensure early coordination on these issues prior to construction.

Response to Public Comments received at the public meeting

Two members of the public spoke at the public meeting on July 19, 2021 and expressed concerns regarding trash left on the construction site at a neighboring wind project. As noted at the hearing, Xcel Energy indicated they take these concerns very seriously. Section 5.3.24 of the Draft Site Permit addresses this issue and requires daily clean-up of personal litter and proper disposal of other construction waste. Xcel Energy has already communicated with its construction team regarding these concerns.

DOC-EERA Response

In its Comments and Recommendations on Application Completeness, DOC-EERA requested that Xcel Energy and its noise consultant, RSG, provide documentation into the record describing their standards and documented guidance. As requested, Xcel provided as Attachment A⁵ to their reply comments, a memo prepared by RSG describing the assumptions used in the noise modeling for Grand Meadow and the supporting standards and guidance related to those assumptions.

Concluding, Xcel Energy indicated they appreciated the participation and comments provided by the public and agencies in this docket and believed the issues raised are adequately addressed in the Draft Site Permit efiled on June 24, 2021. Xcel Energy requested that the Commission approve its request to amend the Grand Meadow site permit with the conditions set forth in the Draft Site Permit.

Department of Comments, Energy Environmental Review and Analysis

On September 3, 2021, EERA staff submitted comments and recommendations on the Permit Amendment Application. On July 19, 2021 commission and EERA staff held an in-person public meeting, followed by a virtual meeting on July 20. Approximately 10 interested participants attended the in-person meeting.

Two oral comments were made at the July 19, 2021, meeting: One person expressed his concerns over bad worksite management in the past; and another person requested information on the reason for 91m RD and 97m RD replacement blades (smaller RD used on certain turbines due to noise modeling) and the anticipated location of the Aviation Detection Lighting System (ADLS) radar tower (not finally determined at this point). No other members of the public presented comments or questions. No parties unaffiliated with the applicant attended the virtual meeting on July 20, 2021.

EERA staff indicated that the applicant has essentially addressed the comments of the agencies and individuals who brought up issues during the comment period. The Department addressed the remaining issues below:

Waiver of Wind Access Buffer Setbacks

⁵ Xcel Energy Reply Comments, August 17, 2021, Document ID [20218-177213-01](#)

With larger blades, the 3x5 RD is naturally larger, in some cases expanding beyond where the applicant has established wind project participation agreements. In some instances, the applicant has been able to enter into new agreements with landowners. In other cases, the applicant has not been able to obtain an agreement and is requesting waivers from the turbine wind access buffer. The application contained a request for the Commission to waive the wind access buffer for 22 of the 67 turbines.⁶ The Commission has recently granted conditional waivers in similar repowering dockets, such as the Nobles Wind Farm Repower Project.⁷

EERA considers the logic in granting waivers in this repowering project as follows:

1. The concept of turbine buffer setback is simply to protect the applicant and the development rights of nonparticipating landowners.
2. The particular of a 3 RD x 5 RD setback has evolved over the last 20 years as the best, conservative estimate to achieve that protection; it is not a legal precedent of “wind rights.”
3. The larger RD size may or may not have a greater impact on that protection, based on wakeloss studies.
4. EERA supports Xcel extending payments to non-participants who may now experience a technically larger impact due to the larger RD.
5. EERA also believes the Commission has a right to waive that condition in its own permits, based on their best assessment of actual impact.

EERA believed the applicant has shown the impact to be de minimis. The effect of extending the existing setbacks by the length of the larger rotor would not impede the non-participating landowners from developing their own parcels in any manner or from exercising their own wind development where they hold sufficient land and rights to do so. Given that, EERA would expect the applicant to continue to attempt to reach agreement with non-participating landowners up to and through construction. However, at this point EERA would support the requested waivers as included in the Draft Site Permit.⁸

EERA is supporting a permit condition using the updated Wind Access Buffer waiver language included in the Nobles Wind Repower Amended Permit, in Section 4.1:

These variances are granted on the condition that the permittee shall extend a final offer to the remaining landowners for the same amount and terms agreed to by other landowners in similar circumstances or their last offer, whichever is higher. At least 14 days before the preconstruction meeting, the permittee must make a compliance filing describing in detail the results of the negotiation. If no wind rights agreement is reached, the permittee acknowledges that this property will not be foreclosed from installing wind turbine generators on such property at a later date, even if such turbine

⁶ Amendment Application, Section 1.4

⁷ Nobles Wind Farm Repower Order and Amended Permit, Commission, July 26, 2021, eDockets Number [20217-176460-01](#), eDockets Number [20218-177505-01](#)

⁸ Draft Site Permit, Section 4.1

generators cannot be installed on such property in compliance with the setbacks set forth in this section.⁹

Further, EERA indicated if the Commission does include such an order point or permit condition, EERA requested further instruction on compliance review or enforcement. EERA is not clear on the nature of the required compliance review. Furthermore, EERA is not confident it has the qualifications in-house to review the contracts and transactions between a utility and landowners.

Shadow Flicker

Recent Commission LWECS decisions have been establishing 30 hours of shadow flicker as an unofficial standard for considering mitigation for both participants and nonparticipants in new and repowering LWECS projects.¹⁰ Since new orders have included new language to address this, EERA recommends the Draft Site Permit be amended to read:

7.2 Shadow Flicker

At least 14 days prior to the pre-construction meeting, the Permittee shall provide data on shadow flicker for each residence of non-participating landowners and participating landowners within and outside of the project boundary potentially subject to turbine shadow flicker exposure. Information shall include the results of modeling used, assumptions made, and the anticipated levels of exposure from turbine shadow flicker for each residence. The Permittee shall provide documentation on its efforts to avoid, minimize and mitigate shadow flicker exposure. The results of any modeling shall be filed with the Commission at least 14 days prior to the pre-construction meeting to confirm compliance with conditions of this permit.

The Permittee shall develop a project wide Shadow Flicker Management Plan that reduces shadow flicker exposure to less than 30 hours per year for all occupied residences. The Permittee may exclude from the Shadow Flicker Management Plan residences that exceed 30 hours per year by providing documentation that the landowners have reached an alternative agreement as it relates to shadow flicker. If agreement is reached with a landowner regarding shadow flicker after the pre-construction meeting the Permittee may remove that residence from coverage under the plan.

Noise Modeling Methodology

RSG (the applicant's technical consultant) filed a response with Xcel Energy's reply comments¹¹ to EERA's request for additional information. EERA had requested further information on their methodology and sources for the standards and guidance that they indicated supported their

⁹ Nobles Amended Permit Section 4.1, or review Plum Creek Wind, August 12, 2021 Agenda Meeting

¹⁰ Nobles Wind Farm Order, et al.

¹¹ Xcel Reply Comments, Attachment

methodology. EERA is reviewing the response. This is part of EERA's continuing evaluation of noise modeling in relation to post-construction monitoring. EERA will continue discussions with RSG to refine noise modeling standards. EERA sees this as separate from the Grand Meadow review and doesn't recommend further study in this docket. No additional permit conditions are recommended.

Pre-construction Waste Disposal

EERA indicated support for an order item such as was included in the Nobles Wind Farm repowering permit amendment:¹²

Required a compliance filing at least 14 days before the pre-construction meeting outlining the method for disposal or reuse of the existing turbine blades and other components, providing the estimated cost, options considered, evaluation conducted, option selected or rejected, and the timing for disposal or reuse. Additionally, required an update to the disposal compliance filing after repowering has been completed describing actual costs, timing, and methods for disposal or reuse.

EERA Staff Recommendation

EERA staff recommended approval of the Grand Meadow Wind Farm Site Permit Amendment as it is compatible with environmental preservation, sustainable development and the efficient use of resources. EERA recommended the applicant provide information on compliance of other downstream permits or approvals, such as road agreements and MnDOT approvals. EERA recommended that the Commission waive the standard wind access buffers for the 22 turbines mentioned above, and further recommended the Permittee continue to seek agreements with non-participants newly affected by the larger buffer sizes.

VII. Staff Analysis

Based on a review of the information in Xcel Energy's permit amendment application, the public comments received, the comments and recommendations of the DOC EERA, the state agencies, and other evidence in the record; staff provides the following discussion and recommendations:

Regarding comments received from state agencies, staff notes these state agencies provided helpful information to inform this docket, as well as most recent similar new energy facility proposed projects and believes that a good working relationship exists between this applicant and state agencies. The Applicant has indicated that it plans on complying with all state agency requirements. Staff also believes there are no outstanding issues the Commission need resolve with respect to their comments.

With regard to the public comments received expressing concerns about the construction practices at a neighboring wind project and maintaining the worksite clean in general, staff agrees that language in Section 5.3.24 of the Draft Site Permit addresses this issue and requires

¹² Nobles Wind Farm Repowering Order

daily clean-up of personal litter and proper disposal of other construction waste. There is no reason to believe Xcel Energy will not comply with this requirement, if issued a permit.

Site Permit Conditions

For the site permit, the record contains two specific areas where there are proposed changes from the Draft Site Permit language. Namely in Section 4.1 (access buffer) and in Section 7.2 (shadow flicker) as described by the Department and agreed to by the Applicant.

With regard to the request for wind access buffer waivers for up to 22 of the 67 turbines, including turbines 101-104, 106, 112, 115-119, 124, 126, 129-131, 133-135, 158-159, and 165, staff agrees with DOC EERA, and the Applicant that granting a waiver for the reasons provided in the May 27, 2021 Application, and the reasons outlined by EERA staff combined with the language in section 4.1 of the permit, is appropriate.

With regard to Shadow Flicker, staff supports adding the additional paragraph in section 7.2 Shadow Flicker, as proposed by the Department in their September 3, 2021 comments and as set out in these briefing papers.

Lastly, Commission staff supports updating the site permit to reflect the new project capacity of up to 108 MW, with the understanding that this project will still be capped at 100.5 MW capacity for the interconnection with MISO's grid, as described in the interconnection agreement.

Commission staff will finalize the attached site permit after the Commission has decided these issues and any other matters, prior to order issuance.

VIII. Decision Options

A. Site Permit Amendment for the up to 108 MW Grand Meadow Wind Farm Repower Project in Mower County, Minnesota.

1. Turbines 101-104, 106, 112, 115-119, 124, 126, 129-131, 133-135, 158-159, and 165.
 - a. Grant a waiver to Xcel Energy of the wind rights access buffer as requested in its May 27, 2021 filing.
 - b. Deny the wind rights access buffer waiver.
 - c. Direct Xcel Energy to continue negotiations to obtain wind rights.
2. Issue an amended Site Permit for the up to 108 MW Grand Meadow Wind Farm Project in Mower County, Minnesota incorporating the revisions to Sections 4.1 and 7.2 as proposed by the DOC EERA.
3. Issue an amended Site Permit as proposed by the DOC EERA and include any additional permit conditions deemed appropriate.
4. Take some other action deemed appropriate.

B. Permit Conditions

1. Include the additional language proposed by EERA in sections 4.1 and 7.2 of the site permit:

4.1 Wind Access Buffer

These variances are granted on the condition that the permittee shall extend a final offer to the remaining landowners for the same amount and terms agreed to by other landowners in similar circumstances or their last offer, whichever is higher. At least 14 days before the preconstruction meeting, the permittee must make a compliance filing describing in detail the results of the negotiation. If no wind rights agreement is reached, the permittee acknowledges that this property will not be foreclosed from installing wind turbine generators on such property at a later date, even if such turbine generators cannot be installed on such property in compliance with the setbacks set forth in this section.

7.2 Shadow Flicker

The Permittee shall develop a project wide Shadow Flicker Management Plan that reduces shadow flicker exposure to less than 30 hours per year for all occupied residences. The Permittee may exclude from the Shadow Flicker Management Plan residences that exceed 30 hours per year by providing documentation that the landowners have reached an alternative agreement as it relates to shadow flicker. If agreement is reached with a landowner regarding shadow flicker after the pre-construction meeting the Permittee may remove that residence from coverage under the plan.

2. Propose some other language.
3. Deny including additional special permit conditions in sections 4.1 and 7.2.

C. Ordering Paragraph

1. Include the following paragraph in the order:

Require a compliance filing at least 14 days before the pre-construction meeting outlining the method for disposal or reuse of the existing turbine blades and other components, providing the estimated cost, options considered, evaluation conducted, option selected or rejected, and the timing for disposal or reuse. Additionally, require an update to the disposal compliance filing after repowering has been completed describing actual costs, timing, and methods for disposal or reuse.

2. Do not include this compliance paragraph.

D. Administrative Consistency

1. Authorize Commission staff to make further refinements to the permit conditions as necessary to ensure consistency with the record, the language of recently issued permits, and the Commission's decision in this matter.

Staff Recommendation: A.1(a), A.2, B.1, C.1, and D.1

STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

**AMENDED SITE PERMIT FOR A
LARGE WIND ENERGY CONVERSION SYSTEM**

**IN
MOWER COUNTY**

**ISSUED TO
NORTHERN STATES POWER COMPANY**

PUC DOCKET No. IP-6646/WS-07-839

In accordance with the requirements of Minnesota Statutes Chapter 216F and Minnesota Rules Chapter 7854 this site permit is hereby issued to:

NORTHERN STATES POWER COMPANY (D/B/A XCEL ENERGY)

The Permittee is authorized by this site permit to construct and operate the Grand Meadow Wind Farm, a Large Wind Energy Conversion System of up to 108 megawatts (MW) consisting of 67 turbines. The Large Wind Energy Conversion System and associated facilities shall be built within the site identified in this permit and as portrayed on the site maps and in compliance with the conditions specified in this permit.

This site permit shall expire twenty-five (25) years from the date of this approval.

Approved and adopted this ____ day of _____

BY ORDER OF THE COMMISSION

Will Seuffert, Executive Secretary

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ATTACHMENTS

- Attachment 1 – Complaint Handling Procedures for Permitted Energy Facilities
- Attachment 2 – Compliance Filing Procedure for Permitted Energy Facilities
- Attachment 3 – Site Map
- Attachment 4 – DNR Flyers

1 SITE PERMIT

The Minnesota Public Utilities Commission (Commission) hereby issues this site permit to Northern States Power Company (Permittee) pursuant to Minnesota Statutes Chapter 216F and Minnesota Rules Chapter 7854. This permit authorizes the Permittee to construct and operate the Grand Meadow Wind Farm, an up to 108 megawatt (MW) nameplate capacity Large Wind Energy Conversion System (LWECS) and associated facilities in Mower County. The LWECS and associated facilities shall be built within the site identified in this permit and as identified in the attached site maps, hereby incorporated into this document.

1.1 Preemption

Pursuant to Minn. Stat. § 216F.07, this permit shall be the sole site approval required for the location, construction, and operation 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.

2 PROJECT DESCRIPTION

The project is a repowering of the existing Grand Meadow Wind Farm's GE 1.5 sle wind turbines to 1.6 sle turbines. The repowering includes (1) replacing 52 turbines with 97-meter rotors and 15 turbines with 91-meter rotors; (2) replacing equipment within the turbine nacelles; and (3) installing a lighting mitigation system.

There are no changes to existing turbine locations, turbine towers, meteorological towers, the underground electrical connection system, or the project substation. The nameplate capacity of the wind farm increases from 100.5 MW to 107.2 MW (up to 108 MW), but generation at the interconnection point remains at 100.5 MW per MISO agreement.

The project area includes approximately 8,088 acres of land, and the Permittee currently holds easements and participation agreements on up to XX,XXX acres of land within the project area. Upon completion of Project construction and restoration, the project site will include no more than XXX acres of land converted to wind turbines and associated facilities approved by this site permit. (*Update prior to permitting following continuing negotiations.*)

2.1 Associated Facilities

Associated facilities include the following:

- a. gravel access roads
- b. underground collection lines
- c. underground communication line system
- d. one permanent meteorological tower
- e. a Project substation facility
- f. an operations and maintenance (O&M) facility
- g. a lighting mitigation system

Temporary disturbance areas to allow for the construction of the Project will include, crane paths, pull sites, access roads, a concrete batch plant, and a laydown yard.

2.2 Project Location

The project is located in the following:

County Name	Township Name	Township	Range	Sections
Grand Meadow	Clayton	102N	15W	5, 6
	Dexter	103N	16W	24-25, 36
	Grand Meadow	103N	15W	7-9, 17-21, 28-33
	Dexter (city)	103N	16W	24

3 DESIGNATED SITE

The site designated by the Commission for the Grand Meadow Wind Farm is the site depicted on the site maps attached to this permit. The project area encompasses approximately **8,088** acres. Within the project boundary, the LWECS and associated facilities shall be located on lands for which the Permittee has obtained wind rights. (*Update prior to permitting following continuing negotiations.*)

3.1 Turbine Layout

The wind turbine and associated facilities layout is shown on the site maps attached to this permit. The layout represents the location of wind turbines and associated facilities within the

project boundary and identifies a layout that minimizes the overall potential human and environmental impacts of the project.

4 SETBACKS AND SITE LAYOUT RESTRICTIONS

4.1 Wind Access Buffer

Wind turbine towers shall not be placed less than five rotor diameters on the prevailing wind directions and three rotor diameters on the non-prevailing wind directions from the perimeter of the property where the Permittee does not hold the wind rights, without the approval of the Commission. This section does not apply to public roads and trails.

[The Commission authorizes a variance of the wind access buffer setback for the following turbine locations: 22 turbines, including turbines: 101-104, 106, 112, 115-119, 124, 126, 129-131, 133-135, 158-159, and 165. Update prior to permitting following continuing negotiations.]

These variances are granted on the condition that the permittee shall extend a final offer to the remaining landowners for the same amount and terms agreed to by other landowners in similar circumstances or their last offer, whichever is higher. At least 14 days before the preconstruction meeting, the permittee must make a compliance filing describing in detail the results of the negotiation. If no wind rights agreement is reached, the permittee acknowledges that this property will not be foreclosed from installing wind turbine generators on such property at a later date, even if such turbine generators cannot be installed on such property in compliance with the setbacks set forth in this section.

4.2 Residences

Wind turbine towers shall not be located closer than 1,000 feet from all residences or the distance required to comply with the noise standards pursuant to Minn. R. 7030.0040, established by the Minnesota Pollution Control Agency (MPCA), whichever is greater.

4.3 Noise

The wind turbine towers shall be placed such that the Permittee shall, at all times, comply with noise standards established by the MPCA as of the date of this permit and at all appropriate locations. The noise standards are found in Minnesota Rules Chapter 7030. Turbine operation shall be modified, or turbines shall be removed from service if necessary to comply with these noise standards. The Permittee or its contractor may install and operate turbines as close as the

minimum setback required in this permit, but in all cases shall comply with MPCA noise standards. The Permittee shall be required to comply with this condition with respect to all homes or other receptors in place as of the time of construction, but not with respect to such receptors built after construction of the towers.

4.4 Roads

Wind turbines and meteorological towers shall not be located closer than 250 feet from the edge of the nearest public road right-of-way.

4.5 Public Lands

Wind turbines and associated facilities including foundations, access roads, underground cable, and transformers, shall not be located in publicly-owned lands that have been designated for recreational or conservation purposes, including, but not limited to, Waterfowl Production Areas, State Wildlife Management Areas, Scientific and Natural Areas or county parks, except in the event that the public entity owning those lands enters into a land lease and easement with the Permittee. Wind turbines towers shall also comply with the setbacks of Section 4.1.

4.6 Wetlands

Wind turbines and associated facilities including foundations, access roads, underground cable and transformers, shall not be placed in public waters wetlands, as shown on the public water inventory maps prescribed by Minnesota Statutes Chapter 103G, except that electric collector or feeder lines may cross or be placed in public waters or public waters wetlands subject to permits and approvals by the Minnesota Department of Natural Resources (DNR) and the United States Army Corps of Engineers (USACE), and local units of government as implementers of the Minnesota Wetlands Conservation Act.

4.7 Native Prairie

Wind turbines and associated facilities including foundations, access roads, collector and feeder lines, underground cable, and transformers shall not be placed in native prairie, as defined in Minn. Stat. § 84.02, subd. 5, unless addressed in a prairie protection and management plan and shall not be located in areas enrolled in the Native Prairie Bank Program. Construction activities, as defined in Minn. Stat. § 216E.01, shall not impact native prairie unless addressed in a Prairie Protection and Management Plan.

The Permittee shall prepare a Prairie Protection and Management Plan in consultation with the DNR if native prairie, as defined in Minn. Stat. § 84.02, subd. 5, is identified within the site boundaries. The Permittee shall file the plan 30 days prior to submitting the site plan required by Section 10.3 of this permit. The plan shall address steps that will be taken to avoid impacts to native prairie and mitigation to unavoidable impacts to native prairie by restoration or management of other native prairie areas that are in degraded condition, by conveyance of conservation easements, or by other means agreed to by the Permittee, the DNR, and the Commission.

4.8 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.

4.9 Wind Turbine Towers

Structures for wind turbines are self-supporting tubular towers. The wind turbine specifications in the table below were provided in the Permittee's May 27, 2021, Site Permit Amendment Application:

Design Feature	GE 1.6 sle	GE 1.6 sle
Capacity	1.6 MW	1.6 MW
Number of Turbines	15	52
Total Height (ground to tip)	125.5 m (411.7 ft)	128.5 m (421.6 ft)
Hub Height	80 m (262 .5 ft)	80 m (262.5 ft)
Rotor Diameter	91 m (298.6 ft)	97 m (318.2 ft)

4.10 Turbine Spacing

The turbine towers shall be constructed within the site boundary as shown on the site maps. The turbine towers shall be spaced no closer than three rotor diameters in the non-prevailing wind directions and five rotor diameters on the prevailing wind directions. If required, 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.

4.11 Meteorological Towers

Permanent towers for meteorological equipment shall be free standing. Permanent meteorological towers shall not be placed less than 250 feet from the edge of the nearest public road right-of-way and from the boundary of the Permittee's site control, or in compliance with the county ordinance regulating meteorological towers in the county the tower is built, whichever is more restrictive. Meteorological towers shall be placed on property the Permittee holds the wind or other development rights.

Meteorological towers shall be marked as required by the Federal Aviation Administration (FAA). There shall be no lights on the meteorological 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.

4.12 Aviation

The Permittee shall not place wind turbines or associated facilities in a location that could create an obstruction to navigable airspace of private and public airports (as defined in Minn. R. 8800.0100, subp. 24(a) and 24(b)) in Minnesota, adjacent states, or provinces. The Permittee shall apply the minimum obstruction clearance for private airports pursuant to Minn. R. 8800.1900, subp. 5. Setbacks or other limitations shall be followed in accordance with the Minnesota Department of Transportation (MnDOT), Department of Aviation, and the FAA. The Permittee shall notify owners of all known airports within six miles about the project's anticipated construction start date at least 14 days prior to the pre-construction meeting.

4.13 Footprint Minimization

The Permittee shall design and construct the LWECS so as to minimize the amount of land that is impacted by the LWECS. Associated facilities in the vicinity of turbines such as electrical/electronic boxes, transformers, and monitoring systems shall, to the greatest extent feasible, be mounted on the foundations used for turbine towers or inside the towers unless otherwise negotiated with the affected landowner.

5 GENERAL CONDITIONS

The Permittee shall comply with the following conditions during construction and operation of the LWECS and associated facilities over the life of this permit.

5.1 Permit Distribution

Within 30 days of permit issuance, the Permittee shall send a copy of the permit and the complaint procedures to any regional development commission, county auditor and environmental office, and city and township clerk in which any part of the site is located.

Within 30 days of permit issuance, the Permittee shall provide all affected landowners with a copy of this permit and the complaint procedures. In no case shall the landowner receive this site permit and complaint procedures less than five days prior to the start of construction on their property. An affected landowner is any landowner or designee that is within or adjacent to the permitted site.

5.2 Access to Property

The Permittee shall contact landowners prior to entering private property or conducting maintenance within the project site, unless otherwise negotiated with the affected landowner.

5.3 Construction and Operation Practices

The Permittee shall comply with the construction practices, operation and maintenance practices, and material specifications described in the May 27, 2021, Site Permit Amendment Application, and the record of the proceedings unless this permit establishes a different requirement in which case this permit shall prevail.

5.3.1 Field Representative

The Permittee shall designate a field representative responsible for overseeing compliance with the conditions of this permit during construction of the project. This person shall be accessible by telephone or other means during normal business hours throughout site preparation, construction, cleanup, and restoration.

The Permittee shall file with the Commission the name, address, email, phone number, and emergency phone number of the field representative 14 days prior to the pre-construction meeting. The Permittee shall provide the field representative's contact information to affected landowners, residents, local government units and other interested persons 14 days prior to commencing construction. The Permittee may change the field representative at any time upon notice to the Commission, affected landowners, LGUs and other interested persons.

5.3.2 Site Manager

The Permittee shall designate a site manager responsible for overseeing compliance with the conditions of this permit during the commercial operation and decommissioning phases of the project. This person shall be accessible by telephone or other means during normal business hours for the life of this permit.

The Permittee shall file with the Commission the name, address, email, phone number, and emergency phone number of the site manager 14 days prior to commercial operation of the facility. The Permittee shall provide the site manager's contact information to affected landowners, residents, local government units and other interested persons 14 days prior to commercial operation of the facility. The Permittee may change the site manager at any time upon notice to the Commission, affected landowners, local government units and other interested persons.

5.3.3 Employee Training and Education of Permit Terms and Conditions

The Permittee shall inform and educate all employees, contractors, and other persons involved in the construction and ongoing operation of the LWECS of the terms and conditions of this permit.

5.3.4 Public Services and Public Utilities

During construction, the Permittee shall minimize any disruption to public services and public utilities. To the extent disruptions to public services or public utilities occur these will be temporary, and the Permittee will restore service promptly. Where any impacts to utilities have the potential to occur the Permittee will work with both landowners and local agencies to determine the most appropriate mitigation measures if not already considered as part of this permit.

5.3.5 Topsoil Protection

The Permittee shall implement measures to protect and segregate topsoil from subsoil on all lands unless otherwise negotiated with the affected landowner.

5.3.6 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. Soil decompaction measures shall be utilized on all lands utilized for project construction and

travelled on by cranes, heavy equipment, and heavy trucks; even when soil compaction minimization measures are used.

5.3.7 Soil Erosion and Sediment Control

The Permittee shall implement those erosion prevention and sediment control practices recommended by the MPCA Construction Stormwater Program. If construction of the facility disturbs more than one acre of land, or is sited in an area designated by the MPCA as having potential for impacts to water resources, the Permittee shall obtain a National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit from the MPCA that provides for the development of a Stormwater Pollution Prevention Plan (SWPPP) that describes methods to control erosion and runoff.

The Permittee shall implement reasonable measures to minimize erosion and sedimentation during construction and shall employ perimeter sediment controls, protect exposed soil by promptly planting, seeding, using erosion control blankets and turf reinforcement mats, stabilizing slopes, protecting storm drain inlets, protecting soil stockpiles, and controlling vehicle tracking. Contours shall be graded as required so that all surfaces provide for proper drainage, blend with the natural terrain, and are left in a condition that will facilitate re-vegetation and prevent erosion. All areas disturbed during construction of the facilities shall be returned to pre-construction conditions.

5.3.8 Wetlands and Water Resources

Construction in wetland areas shall occur during frozen ground conditions to minimize impacts, to the extent feasible. When construction during winter is not possible, wooden or composite mats shall be used to protect wetland vegetation. Soil excavated from the wetlands and riparian areas shall be contained and managed in accordance with all applicable wetland permits. Wetlands and riparian areas shall be accessed using the shortest route possible in order to minimize travel through wetland areas and prevent unnecessary impacts.

Wetland and water resource areas disturbed by construction activities shall be restored to pre-construction conditions in accordance with the requirements of applicable state and federal permits or laws and landowner agreements. All requirements of the U.S. Army Corps of Engineers, Minnesota Department of Natural Resources, Minnesota Board of Water and Soil Resources, and local units of government shall be met.

5.3.9 Vegetation Removal

The Permittee shall disturb or clear vegetation on the project site only to the extent necessary to assure suitable access for construction, and for safe operation and maintenance of the project. The Permittee shall minimize the number of trees removed in selecting the site layout specifically preserving to the maximum extent practicable windbreaks, shelterbelts, living snow fences, and other vegetation, to the extent that such actions do not violate sound engineering principles.

5.3.10 Application of Pesticides

The Permittee shall restrict pesticide use to those pesticides and methods of application approved by the Minnesota Department of Agriculture (MDA), DNR, and the U.S. Environmental Protection Agency (EPA). Selective foliage or basal application shall be used when practicable. All pesticides shall be applied in a safe and cautious manner so as not to damage adjacent properties including crops, orchards, tree farms, apiaries, or gardens. The Permittee shall contact the landowner or designee to obtain approval for the use of pesticide at least 14 days prior to any application on their property. The landowner may request that there be no application of pesticides on any part of the site within the landowner's property. The Permittee shall provide notice of pesticide application to affected landowners and known beekeepers operating apiaries within three miles of the project site at least 14 days prior to such application.

5.3.11 Invasive Species

The Permittee shall employ best management practices to avoid the potential introduction and spread of invasive species on lands disturbed by project construction activities. The Permittee shall develop an Invasive Species Prevention Plan to prevent the introduction and spread of invasive species on lands disturbed by project construction activities and file with the Commission 14 days prior to the pre-construction meeting.

5.3.12 Noxious Weeds

The Permittee shall take all reasonable precautions against the spread of noxious weeds during all phases of construction. When utilizing seed to establish temporary and permanent vegetative cover on exposed soil, the Permittee shall select site appropriate seed certified to be free of noxious weeds. The Permittee shall consult with landowners on the selection and use of seed for replanting. To the extent possible, the Permittee shall use native seed mixes.

5.3.13 Public Roads

At least 14 days prior to the pre-construction meeting, the Permittee shall identify all state, county, or township roads that will be used for the project and shall notify the Commission 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. Where practical, existing roadways shall be used for all activities associated with the project. Where practical, all-weather roads shall be used to deliver cement, turbines, towers, assembled nacelles, and all other heavy components to and from the turbine sites.

The Permittee shall, prior to the use of such roads, make satisfactory arrangements (approved permits, written authorizations, road use agreements, development agreements, etc.) with the appropriate state, county, or township governmental body having jurisdiction over roads to be used for construction of the project, for maintenance and repair of roads that may be subject to increased impacts due to transportation of equipment and project components. The Permittee shall notify the Commission of such arrangements upon request.

5.3.14 Turbine Access Roads

The Permittee shall construct the least number of turbine access roads necessary to safely and efficiently operate the project and satisfy landowner requests. 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. Access roads shall not be constructed across streams and drainage ditches without required permits and approvals. When access roads are constructed across streams, drainage ways, or drainage ditches, the access roads shall be designed and constructed in a manner so runoff from the upper portions of the watershed can readily flow to the lower portion of the watershed. Any access roads that are constructed across streams or drainage ditches shall be designed and constructed in a manner that maintains existing fish passage.

Access roads that are constructed across grassed waterways, which provide drainage for surface waters that are ephemeral in nature, are not required to maintain or provide fish passage. Access roads shall be constructed in accordance with all necessary township, county or state road requirements and permits.

5.3.15 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.

5.3.16 Archaeological and Historic Resources

The Permittee shall make every effort to avoid impacts to identified archaeological and historic resources when constructing the facility. In the event that a resource is encountered, the Permittee shall consult with the State Historic Preservation Office (SHPO) and the State Archaeologist. Where feasible, avoidance of the resource is required. Where not feasible, mitigation must include an effort to minimize project impacts on the resource consistent with SHPO and State Archaeologist requirements.

Prior to construction, workers shall be trained about the need to avoid cultural properties, how to identify cultural properties, and procedures to follow if undocumented cultural properties, including gravesites, are found during construction. If human remains are encountered during construction, the Permittee shall immediately halt construction at such location and promptly notify local law enforcement and the State Archaeologist. Construction at such location shall not proceed until authorized by local law enforcement and the State Archaeologist.

5.3.17 Interference

At least 14 days prior to the pre-construction meeting, the Permittee shall submit to the Commission an assessment of television and radio signal reception, microwave signal patterns, and telecommunications in the project area. The assessment shall be designed to provide data that can be used in the future to determine whether the turbines and associated facilities are the cause of disruption or interference of television or radio reception, microwave patterns, or telecommunications in the event residents should complain about such disruption or interference after the turbines are placed in operation. The Permittee shall be responsible for alleviating any disruption or interference of these services caused by the turbines or any associated facilities.

The Permittee shall not operate the project so as to cause microwave, television, radio, telecommunications, or navigation interference in violation of Federal Communications Commission (FCC) regulations or other law. In the event the project or its operations cause such interference, the Permittee shall take timely measures necessary to correct the problem.

5.3.18 Livestock Protection

The Permittee shall take precautions to protect livestock during all phases of the project's life.

5.3.19 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.

5.3.20 Drainage Tiles

The Permittee shall take into account, avoid, promptly repair or replace all drainage tiles broken or damaged during all phases of project's life unless otherwise negotiated with the affected landowner.

5.3.21 Equipment Storage

The Permittee shall not locate temporary equipment staging areas on lands under its control unless negotiated with affected landowner. Temporary equipment staging areas shall not be located in wetlands or native prairie as defined in Sections 4.6 and 4.7.

5.3.22 Restoration

The Permittee shall, as soon as practical following construction of each turbine, restore the areas affected by construction to the condition that existed immediately before construction began, to the extent possible. The time period to complete restoration may be no longer than 12 months after the completion of construction, unless otherwise negotiated with the affected landowner. Restoration shall be compatible with the safe operation, maintenance and inspection of the project. Within 60 days after completion of all restoration activities, the Permittee shall advise the Commission in writing of the completion of such activities.

5.3.23 Cleanup

All waste and scrap that is the product of construction shall be removed from the site and all premises on which construction activities were conducted and properly disposed of upon completion of each task. Personal litter, including bottles, cans, and paper from construction activities shall be removed on a daily basis.

5.3.24 Pollution and Hazardous Waste

All appropriate precautions to protect against pollution of the environment shall be taken by the Permittee. The Permittee shall be responsible for compliance with all laws applicable to the generation, storage, transportation, clean up and disposal of all wastes generated during construction, site restoration and operation of the facility.

5.3.25 Damages

The Permittee shall fairly restore or compensate landowners for damage to crops, fences, private roads and lanes, landscaping, drain tile, or other damages sustained during construction.

5.3.26 Public Safety

The Permittee shall provide educational materials to landowners adjacent to the site and, upon request, to interested persons about the project and any restrictions or dangers associated with the project. The Permittee shall also provide any necessary safety measures such as warning signs and gates for traffic control or to restrict public access. The Permittee shall submit the location of all underground facilities, as defined in Minn. Stat. § 216D.01, subd. 11, to Gopher State One Call following the completion of construction at the site.

5.3.27 Tower Identification

All turbine towers shall be marked with a visible identification number.

5.3.28 Federal Aviation Administration Lighting

Towers shall be marked as required by the 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.

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.

5.4 Communication Cables

The Permittee shall place all communication and supervisory control and data acquisition cables underground and within or adjacent to the land necessary for turbine access roads unless otherwise negotiated with the affected landowner.

5.5 Electrical Collector and Feeder Lines

Collector lines that carry electrical power from each individual transformer associated with a wind turbine to an internal project interconnection point shall be buried underground. Collector lines shall be placed within or adjacent to the land necessary for turbine access roads unless otherwise negotiated with the affected landowner.

Feeder lines that carry power from an internal project interconnection point to the project substation or interconnection point on the electrical grid may be overhead or underground. Feeder line locations shall be negotiated with the affected landowner. Any overhead or underground feeder lines that parallel public roads shall be placed within the public rights-of-way or on private land immediately adjacent to public roads. If overhead feeder lines are located within public rights-of-way, the Permittee shall obtain approval from the governmental unit responsible for the affected right-of-way.

Collector and feeder line locations shall be located in such a manner as to minimize interference with agricultural operations including, but not limited to, existing drainage patterns, drain tile, future tiling plans, and ditches. Safety shields shall be placed on all guy wires associated with overhead feeder lines. The Permittee shall submit the engineering drawings of all collector and feeder lines in the site plan pursuant to Section 10.3.

5.6 Other Requirements

5.6.1 Safety Codes and Design Requirements

The LWECS and associated facilities shall be designed to meet or exceed all relevant local and state codes, Institute of Electrical and Electronics Engineers, Inc. (IEEE) standards, the National Electric Safety Code (NESC), and North American Electric Reliability Corporation (NERC) requirements. The Permittee shall report to the Commission on compliance with these standards upon request.

5.6.2 Other Permits and Regulations

The Permittee shall comply with all applicable state rules and statutes. The Permittee shall obtain all required permits for the project and comply with the conditions of those permits unless those permits conflict with or are preempted by federal or state permits and regulations. A list of the permits known to be required is included in the permit application. At least 14 days prior to the pre-construction meeting, the Permittee shall submit a filing with a detailed status update of all permits, authorizations, and approvals that have been applied for specific to the project. The detailed status update shall include the permitting agency or authority, the name of the permit, authorization, or approval being sought, contact person and contact information for the permitting agency or authority, brief description of why the permit, authorization, or approval is needed, application submittal date, and the date the permit, authorization, or approval was issued or is anticipated to be issued.

The Permittee shall demonstrate that it has obtained all necessary permits, authorizations, and approvals by filing an affidavit stating as such, prior to commencing project construction. The Permittee shall provide a copy of any such permits, authorizations, and approvals upon Commission request.

The Permittee shall comply with all terms and conditions of permits or licenses issued by the counties, cities, and municipalities affected by the project that do not conflict with or are not preempted by federal or state permits and regulations.

6 SPECIAL CONDITIONS

Special conditions shall take precedence over other conditions of this permit should there be a conflict.

6.1 Soil and Water Conservation District (SWCD) and Landowner Review of Plans

The Permittee shall provide the local SWCD and participating landowners with the opportunity to review and comment on detailed access roads, and all other infrastructure plans and designs in order to minimize the potential to pond and/or divert water creating gully erosion or the potential to cause damage or failure to existing conservation practices, such as terrace(s), sediment control basin(s) or diversion(s) prior to finalization and installation. The Permittee shall file documentation that condition 6.1 of this permit has been complied with at least two weeks prior to the pre-construction meeting.

7 SURVEYS AND REPORTING

7.1 Biological and Natural Resource Inventories

The Permittee shall file with the Commission, any biological surveys or studies conducted for the repowering of the Grand Meadow Wind Farm, other than those studies included in the May 27, 2021, Site Permit Amendment Application, including those not required under this permit.

7.2 Shadow Flicker

At least 14 days prior to the pre-construction meeting, the Permittee shall provide data on shadow flicker for each residence of non-participating landowners and participating landowners within and outside of the project boundary potentially subject to turbine shadow flicker exposure. Information shall include the results of modeling used, assumptions made, and the anticipated levels of exposure from turbine shadow flicker for each residence. The Permittee shall provide documentation on its efforts to avoid, minimize and mitigate shadow flicker exposure. The results of any modeling shall be filed with the Commission at least 14 days prior to the pre-construction meeting to confirm compliance with conditions of this permit.

The Permittee shall develop a project wide Shadow Flicker Management Plan that reduces shadow flicker exposure to less than 30 hours per year for all occupied residences.
The Permittee may exclude from the Shadow Flicker Management Plan residences that exceed 30 hours per year by providing documentation that the landowners have reached an alternative agreement as it relates to shadow flicker. If agreement is reached with a landowner regarding shadow flicker after the pre-construction meeting the Permittee may remove that residence from coverage under the plan.

7.3 Wake Loss Studies

At least 14 days prior to the pre-construction meeting, the Permittee shall file with the Commission its wake loss analysis for the repowering and an estimate of total project wake losses. As part of the annual report on project energy production required under Section 10.8 of this permit, the Permittee shall file with the Commission any operational wake loss studies conducted on this project during the calendar year preceding the report.

7.4 Noise Studies

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 post-construction noise study and file with the Commission the completed post-construction noise study within 18 months of completion of the repowering project.

7.5 Avian and Bat Protection

7.5.1 Operational Phase Fatality Monitoring

The Permittee shall utilize a qualified third party to conduct a minimum of two full years of avian and bat fatality monitoring following the commencement of the operational phase of the project. Monitoring activities and results will be coordinated directly with the Minnesota Department of Natural Resources, U.S. Fish and Wildlife Service, and the Commission. Detailed monitoring protocols, agency coordination, and any avoidance and minimization measures will be detailed in the project's Bird and Bat Conservation Strategy (BBCS).

7.5.2 Avian and Bat Protection Plan

The Permittee shall comply with the provisions of the April 2021, Bird and Bat Conservation Strategy submitted for this project as part of the May 27, 2021, Site Permit Amendment Application, and all necessary revisions that occur during the permit issuance process will be incorporated into a Permit Version. The Permit Version of the BBCS will be filed with the Commission 14 days before the preconstruction meeting and revisions will include any updates associated with final construction plans. The BBCS must address steps to be taken to identify and mitigate impacts to avian and bat species during the construction phase and the operation phase of the project. The BBCS shall also include formal and incidental post-construction fatality monitoring, training, wildlife handling, documentation (*e.g.*, photographs), and reporting protocols for each phase of the project.

The Permittee shall, by the 15th of March following each complete or partial calendar year of operation, file with the Commission an annual report detailing findings of its annual audit of BBCS practices. The annual report shall include summarized and raw data of bird and bat fatalities and injuries and shall include bird and bat fatality estimates for the project using agreed upon estimators from the prior calendar year. The annual report shall also identify any

deficiencies or recommended changes in the operation of the project or in the BBCS to reduce avian and bat fatalities and shall provide a schedule for implementing the corrective or modified actions. The Permittee shall provide a copy of the report to the Minnesota Department of Natural Resources (DNR) and to the U.S. Fish and Wildlife Service (USFWS) at the time of filing with the Commission.

7.5.3 Quarterly Incident Reports

The Permittee shall submit quarterly avian and bat reports to the Commission. Quarterly reports are due by the 15th of January, April, July, and October commencing the day following commercial operation and terminating upon the expiration of this permit. Each report shall identify any dead or injured avian and bat species, location of find by turbine number, and date of find for the reporting period in accordance with the reporting protocols. If a dead or injured avian or bat species is found, the report shall describe the potential cause of the occurrence (if known) and the steps taken to address future occurrences. The Permittee shall provide a copy of the report to the DNR and to the USFWS at the time of filing with the Commission.

7.5.4 Immediate Incident Reports

The Permittee shall notify the Commission, EERA, the USFWS, and the DNR within 24 hours of the discovery of any of the following:

- (a) five or more dead or injured birds or bats, at an individual turbine location, within a five day reporting period;;
- (b) twenty or more dead or injured birds or bats, across the entire facility, within a five day reporting period;;
- (c) one or more dead or injured state threatened, endangered, or species of special concern
- (d) one or more dead or injured federally listed species, including species proposed for listing; or
- (e) one or more dead or injured bald or golden eagle(s).

In the event that one of the four discoveries listed above should be made, the Permittee must file with the Commission within seven days, a compliance report identifying the details of what

was discovered, the turbine where the discovery was made, a detailed log of agencies and individuals contacted, and current plans being undertaken to address the issue.

7.5.5 Turbine Operational Curtailment

The Permittee shall operate all facility turbines so that all turbines are locked or feathered up to the manufacturer's standard cut-in speed from one-half hour before sunset to one-half hour after sunrise of the following day from April 1 to October 31 of each year of operation. All operating turbines at the facility must be equipped with operational software that is capable of allowing for adjustment of turbine cut-in speeds.

8 AUTHORITY TO CONSTRUCT LWECS

8.1 Wind Rights

At least 14 days prior to the pre-construction meeting, the Permittee shall demonstrate that it has obtained the wind rights and any other rights necessary to construct and operate the project within the boundaries authorized by this permit. Nothing in this permit shall be construed to preclude any other person from seeking a permit to construct a 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.

8.2 Power Purchase Agreement

In the event the Permittee does not have a power purchase agreement or some other enforceable mechanism for sale of the electricity to be generated by the project at the time this permit is issued, the Permittee shall provide notice to the Commission when it obtains a commitment for purchase of the power. This permit does not authorize construction of the project until the Permittee has obtained a power purchase agreement or some other enforceable mechanism for sale of the electricity to be generated by the project. In the event the Permittee does not obtain a power purchase agreement or some other enforceable mechanism for sale of the electricity to be generated by the project within two years of the issuance of this permit, the Permittee must advise the Commission of the reason for not having such commitment. In such event, the Commission may determine whether this permit should be amended or revoked. No amendment or revocation of this permit may be undertaken except in accordance with Minn. R. 7854.1300.

8.3 Failure to Commence Construction

If the Permittee has not completed the pre-construction surveys required under this permit and commenced construction of the project within two years of the issuance of this permit, the Permittee must advise the Commission of the reason construction has not commenced. In such event, the Commission shall make a determination as to whether this permit should be amended or revoked. No revocation of this permit may be undertaken except in accordance with applicable statutes and rules, including Minn. R. 7854.1300.

9 COMPLAINT PROCEDURES

Fourteen (14) days prior to the pre-construction meeting,, the Permittee shall submit to the Commission the procedures that will be used to receive and respond to complaints. The procedures shall be in accordance with the requirements of Minn. R. 7829.1500 or Minn. R. 7829.1700, and as set forth in the complaint procedures attached to this permit.

Upon request, the Permittee shall assist the Commission with the disposition of unresolved or longstanding complaints. This assistance shall include, but is not limited to, the submittal of complaint correspondence and complaint resolution efforts.

10 COMPLIANCE REQUIREMENTS

Failure to timely and properly make compliance filings required by this permit is a failure to comply with the conditions of this permit. Compliance filings must be electronically filed with the Commission.

10.1 Pre-Construction Meeting

Prior to the start of any construction, the Permittee shall participate in a pre-construction meeting with the Department of Commerce and Commission staff to review pre-construction filing requirements, scheduling, and to coordinate monitoring of construction and site restoration activities. Within 14 days following the pre-construction meeting, the Permittee shall file with the Commission, a summary of the topics reviewed and discussed and a list of attendees. The Permittee shall indicate in the filing the construction start date.

10.2 Site Plan

At least 14 days prior to the pre-construction meeting, the Permittee shall provide the Commission, the Department of Commerce, and the Mower County Environmental Services

Office with a site plan that includes specifications and drawings for site preparation and grading; specifications and locations of all turbines and other structures to be constructed including all electrical equipment, collector and feeder lines, pollution control equipment, fencing, roads, and other associated facilities; and procedures for cleanup and restoration. The documentation shall include maps depicting the site boundary and layout in relation to that approved by this permit. The Permittee shall document, through GIS mapping, compliance with the setbacks and site layout restrictions required by this permit, including compliance with the noise standards pursuant to Minnesota Rules Chapter 7030. At the same time, the Permittee shall notify affected landowners and city and town clerks that the site plan is on file with the Commission and the Mower County Environmental Services Office. The Permittee may submit a site plan and engineering drawings for only a portion of the project if the Permittee intends to commence construction on certain parts of the project before completing the site plan and engineering drawings for other parts of the project.

The Permittee may not commence construction until the Commission has advised the Permittee in writing that it has completed its review of the documents and determined that the planned construction is consistent with this permit. If the Permittee intends to make any significant changes to its site plan or the specifications and drawings after submission to the Commission, the Permittee shall notify the Commission, the Department, the Mower County Environmental Services Office, city and town clerks, and the affected landowners at least five days before implementing the changes. No changes shall be made that would be in violation of any of the terms of this permit.

10.3 Status Reports

The Permittee shall file status reports with the Commission on progress regarding site construction. The Permittee need not report more frequently than monthly. Reports shall begin with the commencement of site construction and continue until completion of restoration. Reports shall describe construction activities and progress and activities undertaken in compliance with this permit. Reports shall include text and photographs.

10.4 Labor Statistic Reporting

The Permittee shall file quarterly reports with the Commission within 45 days of the end of the quarter regarding construction workers that participated in the construction of the project. The reports shall (a) detail the Permittee's efforts and the site contractor's efforts to hire Minnesota workers, and (b) provide an account of: (i) the gross number of hours worked by or full-time equivalent workers who are Minnesota residents, as defined in Minn. Stat. § 290.01, subd. 7; (ii)

the gross number of hours worked by or full-time equivalent workers who are residents of other states, but maintain a permanent residence within 150 miles of the project; and (iii) the total gross hours worked or total full-time equivalent workers. Permittee shall work with its contractor to determine the suitable reporting metric. The report may not include personally identifiable data.

10.5 In-Service Date

At least three days before the final, repowered turbine is placed into service, the Permittee shall notify the Commission of the date on which the final, repowered turbine will be placed into service and the date on which construction was completed.

10.6 As-Builts

Within 90 days after completion of construction, the Permittee shall submit copies of all final as-built plans and specifications developed during the project.

10.7 GPS Data

Within 90 days after completion of construction, the Permittee shall submit to the Commission, in the format requested by the Commission, geo-spatial information (*e.g.*, ArcGIS compatible map files, GPS coordinates, associated database of characteristics) for all structures associated with the LWECS.

10.8 Project Energy Production

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:

- (a) the installed nameplate capacity of the permitted project;
- (b) the total monthly energy generated by the project in MW hours;
- (c) the monthly capacity factor of the project;
- (d) yearly energy production and capacity factor for the project;

- (e) the operational status of the project and any major outages, major repairs, or turbine performance improvements occurring in the previous year; and
- (f) any other information reasonably requested by the Commission.

The permittee shall file this information in a format recommended in the Department's guidance on energy production reporting. This information shall be considered public and must be filed electronically. This information shall be considered public and must be filed electronically.

10.9 Wind Resource Use

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 preceding year or partial year of operation. This information shall be considered public and must be filed electronically.

10.10 Emergency Response

The Permittee shall prepare an Emergency Response Plan in consultation with the emergency responders having jurisdiction over the facility prior to project construction. The Permittee shall submit a copy of the plan, along with any comments from emergency responders, to the Commission at least 14 days prior to the pre-construction meeting and a revised plan, if any, at least 14 days prior to the pre-operation meeting.

The Permittee shall provide as a compliance filing confirmation that the Emergency Response Plan was provided to the emergency responders and Public Safety Answering Points (PSAP) with jurisdiction over the facility prior to commencement of construction. The Permittee shall obtain and register the facility address or other location indicators acceptable to the emergency responders and PSAP having jurisdiction over the facility.

10.11 Extraordinary Events

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, collector or feeder line failure, 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.

11 DECOMMISSIONING, RESTORATION, AND ABANDONMENT

11.1 Decommissioning Plan

The Permittee shall comply with the provisions of the most recently filed and accepted Decommissioning Plan. The initial version of the Decommissioning Plan was submitted for this project as part of the May 27, 2021, Site Permit Amendment Application. The Permittee shall file an updated decommissioning plan, incorporating comments and information from the permit issuance process and any updates associated with the final construction plans, with the Commission 14 days before the pre-construction meeting. The decommissioning plan shall be updated every five years following the commercial operation date.

The plan shall provide information identifying all surety and financial securities established for decommissioning and site restoration of the project in accordance with the requirements of Minn. R. 7854.0500, subp. 13. The decommissioning plan shall provide an itemized breakdown of costs of decommissioning all project components, which shall include labor and equipment. The plan shall identify cost estimates for the removal of turbines, turbine foundations, underground collection cables, access roads, crane pads, substations, and other project components. The plan may also include anticipated costs for the replacement of turbines or repowering the project by upgrading equipment.

The Permittee shall also submit the decommissioning plan to the local unit of government having direct zoning authority over the area in which the project is located. The Permittee shall ensure that it carries out its obligations to provide for the resources necessary to fulfill its requirements to properly decommission the project at the appropriate time. The Commission may at any time request the Permittee to file a report with the Commission describing how the Permittee is fulfilling this obligation.

11.2 Site Restoration

Upon expiration of this permit, or upon earlier termination of operation of the project, or any turbine within the project, the Permittee shall have the obligation to dismantle and remove from the site all towers, turbine generators, transformers, overhead and underground cables and lines, foundations, buildings, and ancillary equipment to a depth of four feet. Any agreement for removal to a lesser depth or no removal shall be recorded with the county and

shall show the locations of all such foundations. To the extent feasible, the Permittee shall restore and reclaim the site to pre-project conditions, including topography and topsoil conditions. All access roads shall be removed unless written approval is given by the affected landowner requesting that one or more roads, or portions thereof, be retained. All such agreements between the Permittee and the affected landowner shall be submitted to the Commission prior to completion of restoration activities. The site shall be restored in accordance with the requirements of this condition within 18 months of termination.

11.3 Abandoned Turbines

The Permittee shall advise the Commission of any turbines that are abandoned prior to termination of operation of the project. The project, or any turbine within the project, shall be considered abandoned after one year without energy production and the land restored pursuant to Section 11.2 unless a plan is submitted to and approved by the Commission outlining the steps and schedule for returning the project, or any turbine within the project, to service.

12 COMMISSION AUTHORITY AFTER PERMIT ISSUANCE

12.1 Final Boundaries

After completion of construction, the Commission shall determine the need to adjust the final boundaries of the site required for this project in accordance with Minn. R. 7854.1300, subp. 1.

12.2 Expansion of Site Boundaries

No expansion of the site boundaries described in this permit shall be authorized without the approval of the Commission. The Permittee may submit to the Commission a request for a change in the boundaries of the site for the project. The Commission will respond to the requested change in accordance with applicable statutes and rules.

12.3 Periodic Review

The Commission shall initiate a review of this permit and the applicable conditions at least once every five years. The purpose of the periodic review is to allow the Commission, the Permittee, and other interested persons an opportunity to consider modifications in the conditions of this permit. No modification may be made except in accordance with applicable statutes and rules.

12.4 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 project; or
- (c) existence of other grounds established by rule.

12.5 More Stringent Rules

The issuance of this permit does not prevent the future adoption by the Commission 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.

12.6 Right of Entry

The Permittee shall allow Commission designated representatives 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 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.
- (d) To examine and copy any documents pertaining to compliance with the conditions of this permit.

12.7 Proprietary Information

Certain information required to be filed with the Commission under this permit may constitute trade secret information or other type of proprietary information under the Data Practices Act or other law. The Permittee must satisfy requirements of applicable law to obtain the protection afforded by the law.

13 PERMIT AMENDMENT

This permit may be amended at any time by the Commission in accordance with Minn. R. 7854.1300, subp. 2. Any person may request an amendment of the conditions of this permit by submitting a request to the Commission in writing describing the amendment sought and the reasons for the amendment. The Commission will mail notice of receipt of the request to the Permittee. The Commission may amend the conditions after affording the Permittee and interested persons such process as is required.

14 TRANSFER OF PERMIT

The Permittee may request at any time that the Commission transfer this permit to another person or entity. The Permittee shall provide the name and description of the person or entity to whom the permit is requested to be transferred, the reasons for the transfer, a description of the facilities affected, and the proposed effective date of the transfer. The person to whom the permit is to be transferred shall provide the Commission with such information as the Commission shall require to determine whether the new permittee can comply with the conditions of the permit. The Commission may authorize transfer of the permit after affording the Permittee, the new permittee, and interested persons such process as is required. The Commission may impose additional conditions on any new permittee as part of the approval of the transfer.

Within 20 days after the date of the in-service notice provided in Section 10.5, the Permittee shall file a notice describing its ownership structure, identifying, as applicable:

- (a) the owner(s) of the financial and governance interests of the Permittee;
- (b) the owner(s) of the majority financial and governance interests of the Permittee's owners; and
- (c) the Permittee's ultimate parent entity (meaning the entity which is not controlled by any other entity).

The Permittee shall immediately notify the Commission of:

- (a) a change in owner(s) of the majority* financial or governance interests in the Permittee;
- (b) a change in owner(s) of the majority* financial or governance interests of the Permittee's owners; or

- (c) a sale which changes the parent entity of the Permittee.

**When there are only co-equal 50/50 percent interests, any change shall be considered a change in majority interest.*

The Permittee shall notify the Commission of:

- (a) the sale of a parent entity or a majority interest in the Permittee;
- (b) the sale of a majority interest of the Permittee's owners or majority interest of the owners; or
- (c) a sale which changes the entity with ultimate control over the Permittee.

15 REVOCATION OR SUSPENSION OF PERMIT

The Commission 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 Commission'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;
- (c) there has been a material violation of a provision of an applicable statute, rule, or an order of the Commission; or
- (d) the Permittee has filed a petition with the Commission requesting that the permit be revoked or terminated.

In the event the Commission determines that it is appropriate to consider revocation or suspension of this permit, the Commission shall proceed in accordance with the requirements of Minn. R. 7854.1300 to determine the appropriate action. Upon a finding of any of the above, the Commission may require the Permittee to undertake corrective measures in lieu of having this permit suspended or revoked.

16 EXPIRATION DATE

This permit shall expire 25 years after the date this permit was approved and adopted.

Proposed

Attachment 1

Complaint Handling Procedures for Permitted Energy Facilities

Proposed

**MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLAINT HANDLING PROCEDURES FOR
PERMITTED ENERGY FACILITIES**

A. Purpose

To establish a uniform and timely method of reporting and resolving complaints received by the permittee concerning permit conditions for site preparation, construction, cleanup, restoration, operation, and maintenance.

B. Scope

This document describes complaint reporting procedures and frequency.

C. Applicability

The procedures shall be used for all complaints received by the permittee and all complaints received by the Minnesota Public Utilities Commission (Commission) under Minn. R. 7829.1500 or Minn. R. 7829.1700 relevant to this permit.

D. Definitions

Complaint: A verbal or written statement presented to the permittee by a person expressing dissatisfaction or concern regarding site preparation, cleanup or restoration or other route and associated facilities permit conditions. Complaints do not include requests, inquiries, questions or general comments.

Substantial Complaint: A written complaint alleging a violation of a specific permit condition that, if substantiated, could result in permit modification or suspension pursuant to the applicable regulations.

Unresolved Complaint: A complaint which, despite the good faith efforts of the permittee and a person, remains unresolved or unsatisfactorily resolved to one or both of the parties.

Person: An individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

E. Complaint Documentation and Processing

1. The permittee shall designate a representative responsible for filing complaints to the Commission's eDocket system. This person's name, phone number and email address shall accompany all complaint submittals. The name and contact information for the representative shall be kept current in eDockets.
2. A person presenting the complaint should to the extent possible, include the following information in their communications:
 - a. name, address, phone number, and email address;
 - b. initial date of complaint;
 - c. tract, parcel number, or address of the complaint;
 - d. a summary of the complaint; and
 - e. whether the complaint relates to a permit violation, a construction practice issue, or other type of complaint.
3. The permittee shall document all complaints by maintaining a record of all applicable information concerning the complaint, including the following:
 - a. docket number and project name;
 - b. name of complainant, address, phone number and email address;
 - c. precise description of property or parcel number;
 - d. name of permittee representative receiving complaint and date of receipt;
 - e. nature of complaint and the applicable permit condition(s);
 - f. activities undertaken to resolve the complaint; and
 - g. a statement on the final disposition of the complaint.

F. Reporting Requirements

The permittee shall commence complaint reporting at the beginning of project construction and continue through the term of the permit, unless otherwise required below. The permittee shall report all complaints to the Commission according to the following schedule:

Immediate Reports: All substantial complaints shall be reported to the Commission the same day received, or on the following working day for complaints received after working hours. Such reports are to be directed to the Commission's Public Advisor at 1-800-657-3782 (voice messages are acceptable) or publicadvisor.puc@state.mn.us. For e-mail reporting, the email subject line should read "PUC EFP Complaint" and include the appropriate project docket number.

Monthly Reports: During project construction, restoration, and operation, a summary of all complaints, including substantial complaints received or resolved during the preceding month, shall be filed by the 15th of each month to Will Seuffert, Executive Secretary, Public Utilities

Commission, using the eDockets system. The eDockets system is located at: <https://www.edockets.state.mn.us/EFiling/home.jsp>. If no complaints were received during the preceding month, the permittee shall file a summary indicating that no complaints were received.

If a project has submitted twelve consecutive months of complaint reports with no complaints, monthly reports can terminate by a letter to eDockets notifying the Commission of such action. If a substantial complaint is received (by the company or the Commission) following termination of the monthly complaint report, as noted above, the monthly reporting should commence for a period of one year following the most recent complaint or upon resolution of all pending complaints.

If a permittee is found to be in violation of this section, the Commission may reinstate monthly complaint reporting for the remaining permit term or enact some other commensurate requirement via notification by the Executive Secretary or some other action as decided by the Commission.

G. Complaints Received by the Commission

Complaints received directly by the Commission from aggrieved persons regarding site preparation, construction, cleanup, restoration, operation and maintenance shall be promptly sent to the permittee.

The permittee shall notify the Commission when the issue has been resolved. The permittee will add the complaint to the monthly reports of all complaints. If the permittee is unable to find resolution, the Commission will use the process outlined in the Unresolved Complaints Section to process the issue.

H. Commission Process for Unresolved Complaints

Complaints raising substantial and unresolved permit issues will be investigated by the Commission. Staff will notify the permittee and appropriate persons if it determines that the complaint is a substantial complaint. With respect to such complaints, the permittee and complainant shall be required to submit a written summary of the complaint and its current position on the issues to the Commission. Staff will set a deadline for comments. As necessary, the complaint will be presented to the Commission for consideration.

I. Permittee Contacts for Complaints and Complaint Reporting

Complaints may be filed by mail or email to the permittee's designated complaint representative, or to the Commission's Public Advisor at 1-800-657-3782 or publicadvisor.puc@state.mn.us. The name and contact information for the permittee's designated complaint representative shall be kept current in the Commission's eDocket system.

Attachment 2

Compliance Filing Procedures for Permitted Energy Facilities

Proposed

**MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLIANCE FILING PROCEDURE FOR
PERMITTED ENERGY FACILITIES**

A. Purpose

To establish a uniform and timely method of submitting information required by Commission energy facility permits.

B. Scope and Applicability

This procedure encompasses all known compliance filings required by permit.

C. Definitions

Compliance Filing: A filing of information to the Commission, where the information is required by a Commission site or route permit.

D. Responsibilities

1. The permittee shall file all compliance filings with Daniel P. Wolf, Executive Secretary, Public Utilities Commission, through the eDockets system. The eDockets system is located at: <https://www.edockets.state.mn.us/EFiling/home.jsp>

General instructions are provided on the eDockets website. Permittees must register on the website to file documents.

2. All filings must have a cover sheet that includes:

- a. Date
- b. Name of submitter/permittee
- c. Type of permit (site or route)
- d. Project location
- e. Project docket number
- f. Permit section under which the filing is made
- g. Short description of the filing

2. Filings that are graphic intensive (e.g., maps, engineered drawings) must, in addition to being electronically filed, be submitted as paper copies and on CD. Paper copies and CDs should be sent to: 1) Will Seuffert, Executive Secretary, Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN 55101-2147, and 2) Department of Commerce, Energy Environmental Review and Analysis, 85 7th Place East, Suite 280, St. Paul, MN 55101-2198.

The Commission may request a paper copy of any electronically filed document.

PERMIT COMPLIANCE FILINGS¹**PERMITTEE:** NORTHERN STATES POWER COMPANY**PERMIT TYPE:** LARGE WIND ENERGY CONVERSION SYSTEM**PROJECT LOCATION:** GRAND MEADOW COUNTY**PUC DOCKET NUMBER:** WS-09-584

Filing Number	Permit Section	Description of Compliance Filing	Due Date
1	4.7	Prairie Protection and Management Plan	30 days prior to submitting site plan, as necessary
2	4.12	Notification to Airports	Prior to project construction
3	5.1	Distribution of Permit and Complaint Procedures	Within 30 days of permit issuance
4	5.3.1	Field Representative	14 days prior to pre-construction meeting
5	5.3.2	Site Manager	14 days prior to pre-construction meeting
6	5.3.7	NPDES/SDS and SWPPP Permits	In accordance with the Minnesota Pollution Control Agency
7	5.3.10	Landowner Notification of Pesticide Application	14 days prior to application
8	5.3.10	Invasive Species Protection Plan	14 days prior to pre-construction meeting
9	5.3.13	Identification of Roads and Road Agreement	14 days prior to pre-construction meeting
10	5.3.17	Assessment of Interference with Electronic Communications	14 days prior to pre-construction meeting
11	5.3.22	Site Restoration	60 days after completion of restoration
12	5.3.26	Public Safety / Education Materials	Upon request
13	5.6.2	Other Permits and Regulations	14 days prior to pre-construction meeting

¹This compilation of permit compliance filings is provided for the convenience of the permittee and the Commission. It is not a substitute for the permit; the language of the permit controls.

Filing Number	Permit Section	Description of Compliance Filing	Due Date
14	6.1	Lighting Mitigation	With site plan; 14 days prior to pre-construction meeting
15	7.1	Biological and Natural Resource Inventories	Upon completion
16	7.2	Shadow Flicker Data	14 days prior to pre-construction meeting
17	7.3	Wake Loss Studies	14 days prior to pre-construction meeting and with annual report
18	7.4	Post-Construction Noise Methodology	14 days prior to pre-construction meeting
19	7.4	Post-Construction Noise Study	Within 18 months of completion of the repowering project
20	7.5.1	Avian and Bat Fatality Monitoring Results	Upon completion of monitoring
21	7.5.1	Avian and Bat Protection Plan Audits	14 days prior to pre-construction meeting, and 15th of March each year or partial year
22	7.5.3	Quarterly Incident Reports	15th of January, April, July and October
23	7.5.4	Immediate Incident Reports	Within 24 hours of discovery and a report within 7 days
24	8.1	Demonstration of Wind Rights	14 days prior to pre-construction meeting
25	8.2	Power Purchase Agreement Notification	Within 60 days of the expiration of the PPA
26	9.0	Complaint Procedures	14 days prior to pre-construction meeting
27	10.1	Pre-Construction Meeting Summary	Within 14 days following the meeting
28	10.3	Site Plan	14 days prior to pre-construction meeting

Filing Number	Permit Section	Description of Compliance Filing	Due Date
29	10.3	Construction Status Reports	Monthly
30	10.4	Labor Statistic Reporting	Within 45 days of the end of each quarter
31	10.5	Notice of In-Service Date	3 days before final, repowered turbine is placed into service
32	10.6	As-Builts	Within 90 days of completion of construction
33	10.7	GPS Data	Within 90 days of completion of construction
34	10.8	Project Energy Production	February 1st of each year
35	10.9	Wind Resource Use	February 1st of each year
36	10.1	Emergency Response Plan	14 days prior to pre-construction meeting
37	10.11	Extraordinary Event	Within 24 hours of discovery
38	11.1	Decommissioning Plan	14 days prior to pre-construction meeting
39	14	Ownership Structure	Within 20 days of in-service notice

Attachment 3
Map

Proposed

Attachment 4
DNR Erosion Control and Invasive Species Prevention

Proposed