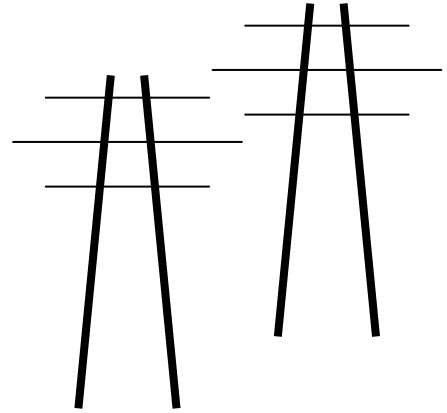


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October 16, 2018

Dan Wolf
Executive Secretary
Public Utilities Commission
121 – 7th Place East, Suite 350
St. Paul, MN 55101

eFiled and eServed

RE: Goodhue Wind Truth's Petition for Reconsideration
Possible Rulemaking to Amend Minnesota Rules Chapter 7854
PUC Docket E999/R-18-518

Dear Mr. Wolf:

Attached please find Goodhue Wind Truth's Petition for Reconsideration in the above-entitled docket.

Please let me know if you have any questions or require anything further.

Very truly yours,

Carol A. Overland
Attorney at Law

cc: Marie McNamara, Goodhue Wind Truth

BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Nancy Lange
Dan Lipschultz
Matt Schuerger
Katie Sieben
John A. Tuma

Chair
Commissioner
Commissioner
Commissioner
Commissioner

CERTIFICATE OF SERVICE

GOODHUE WIND TRUTH

**In the Matter of Possible Rulemaking to
Amend Minnesota Rules Chapter 7854**

PUC Docket No. E999/r-18-518

I, Carol A. Overland, hereby certify that I have this day eFiled the attached Petition for Reconsideration and served parties via eService.



October 16, 2018

Carol A. Overland MN #254617
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BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Nancy Lange
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Chair
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Commissioner
Commissioner
Commissioner

GOODHUE WIND TRUTH
PETITION FOR RECONSIDERATION

Goodhue Wind Truth, pursuant to Minn. R. 7829.3000, respectfully petitions the Public Utilities Commission to Reconsider its decision of September 26, 2018, rejecting the Goodhue Wind Truth Petition for Rulemaking. Goodhue Wind Truth requests that the Commission reverse its decision and grant this rulemaking Petition and comply with the legislative mandate.

The rationale Commission's decision was based on two premises, neither of which is based on facts, evidence, or law readily known to the Commission and contained in the GWT Petition. The Commission's decision referred to the timing of the petition and consensus:

The Commission currently **has an open and ongoing rulemaking proceeding** concerning power plant siting, the **outcome of which would likely inform the scope and structure** of any future rulemaking on the Commission's other siting rules.

Further, the varied comments received in this docket suggest that **there is not informed consensus** on many issues that continue to be developed in individual cases, which provide a better forum for identifying and addressing project-specific issues.

Order, p. 3 (emphasis added).

These notions are the essence of "arbitrary and capricious," and is a decision that fails to

take into consideration the mandate of the legislature which directed the Commission to promulgate rules including criteria for siting factors and the fact that there is no wind siting criteria; a decision that has entirely failed to consider an important aspect of the problem of siting LWECS without having promulgated siting rules and standards for LWECS and of siting LWECS relying on small WECS siting standards; and a decision that offered an explanation that runs counter to the evidence, and the decision, based on timing and requirement of “informed consensus on many issues that continue to be developed in individual cases, and is so implausible that it could not be ascribed to a difference in view or the product of agency expertise. See *Trout Unlimited, Inc. v. Minn. Dep’t of Agric.*, 528 N.W.2d 903, 907 (Minn. App. 1995), *review denied* (Minn. Apr. 27, 1995). An agency’s decision will be deemed arbitrary or capricious if “its determination represents its will and not its judgment.” *Id.* It will also be deemed arbitrary and capricious if the agency relied on factors which the legislature had not intended it to consider, if it entirely failed to consider an important aspect of the problem, if it offered an explanation for the decision that runs counter to the evidence, or if the decision is so implausible that it could not be ascribed to a difference in view or the product of agency expertise. *Id.*, 907.

In this case, the Commission appears to be intent on continuing its improper siting process, one without siting criteria, and continue its reliance on standards expressly developed and ordered for use by counties and in siting small wind for siting LWECS.

It appears that the Commission lacks understanding of Minnesota wind siting practice, its illegitimacy, and the lack of LWECS wind siting rules. On the other hand, it could be the Commission’s decision is a matter of looking the other way, or disavowing its expertise and long-standing mandate to promulgate rules, or a choice to improperly use and rely on standards

that are inapplicable because they were expressly developed for use by counties and for the siting of small wind projects. Minn. Stat. §216F.08; see also Order, January 11, 2008, MPUC Docket E, G999/M-07-1102. These standards were not developed for LWECS. It's undeniable.

The Commission's first rationale, that there is an ongoing rulemaking that would likely inform the scope and structure of wind rulemaking is not credible. The ongoing rulemaking is for Minn. R. 7849 and 7850, separate rule chapters based on distinct statutory chapters for Certificate of Need and Power Plant Siting. Neither of these rule chapters, nor the draft rules proposed, have any wind specific or wind related language. There is no overlap.

The Commission's second rationale is that "there is not informed consensus..." Informed consensus is not a prerequisite to rulemaking! The Commission fails to note that a primary reason there is lack of consensus is that there is no wind specific siting criteria in Minn. R. Ch. 7854, nor is there wind specific siting criteria in the applicable Power Plant Siting Criteria found in Minn. Stat. §216E.03, Subd. 7. This is further complicated by Commerce and the Commission's improper reliance on the small wind siting standards, not rules, and these agencies' failure to require compliance with existing rules, such as application requirements of decommissioning information and financial assurance, and use of arbitrary setbacks not related to standards or rules in the site permit template and permits. In the current siting process, without specific rules, there is no certainty. Without a legitimate basis for its decision, the Commission has no claim to deference based on its expertise it did not utilize.

I. THE COMMISSION AND EQB HAVE NOT COMPLIED WITH THE LEGISLATIVE MANDATE TO DEVELOP WIND RELATED RULES, INCLUDING WIND SITING CRITERIA.

The focus of the Goodhue Wind Truth Petition for Rulemaking is to spur the Commission to do its job and promulgate wind siting rules as directed by the 1995 legislative mandate. There

are no Large Wind Energy Conversion System wind specific siting criteria to be found. On one hand, the Commission and Commerce cite and utilize the Commission's county and small wind standards, and on the other, they establish arbitrary setbacks with no reference to any standard or rule and no basis in law. Where wind specific rules mandated by the legislature have been developed, the Commission and Commerce do not adhere to those rules, or sufficiently develop rules, for example, decommissioning, wind noise modeling and monitoring, and revocation or suspension of a site permit.

A. THE LEGISLATIVE MANDATE OF RULEMAKING HAS NOT BEEN SUFFICIENTLY FULFILLED.

The legislative mandate of rulemaking was specific, and its "shall adopt rules" is not optional. When passed, siting of electric generation was under the auspices of the Environmental Quality Board, which was transferred to the Public Utilities Commission in 2005. The rulemaking mandate stated:

216F.05 RULES.

The commission shall adopt rules governing the consideration of an application for a site permit for an LWECS that address the following:

- (1) criteria that the commission shall use to designate LWECS sites, which must include the impact of LWECS on humans and the environment;**
- (2) procedures that the commission will follow in acting on an application for an LWECS;
- (3) procedures for notification to the public of the application and for the conduct of a public information meeting and a public hearing on the proposed LWECS;
- (4) requirements for environmental review of the LWECS;**
- (5) conditions in the site permit for turbine type and designs; site layout and construction; and operation and maintenance of the LWECS, including the requirement to restore, to the extent possible, the area affected by construction of the LWECS to the natural conditions that existed immediately before construction of the LWECS;**

(6) revocation or suspension of a site permit when violations of the permit or other requirements occur; and

(7) payment of fees for the necessary and reasonable costs of the commission in acting on a permit application and carrying out the requirements of this chapter.

Minn. Stat. §215F.05 (**emphasis added highlighting inadequate or no compliance with legislative mandate**).

There is no LWECS specific siting criteria. In its Order, the Commission notes:

The EERA stated that the rulemaking petition inaccurately characterizes the existing rules and that to the contrary, the rules contain sufficient evaluation criteria and provide for adequate environmental review of the proposed projects. The EERA also stated that under the current rule structure, the Commission has flexibility to set forth additional conditions on a case-by-case basis, depending on the specific project at issue.

Order, p. 3. There is no citation to that “sufficient evaluation criteria.” Further, EERA comments above and wind industry comments note that there is “flexibility” and rulemaking might limit flexibility, which neglects to reference express “flexibility” in the rules:

The commission may include in a site permit conditions for turbine type and designs, site layout and construction, and operation and maintenance of the LWECS, including the requirement to restore, to the extent possible, the area affected by construction of the LWECS to the natural conditions that existed immediately before construction of the LWECS and other conditions that the commission determines are reasonable to protect the environment, enhance sustainable development, and promote the efficient use of resources.

Minn. R. 7854.1000, Subp. 4.

Commenters, Commerce, and the Commission claim there IS siting criteria, yet cannot point to anything other than one narrative sentence:

This chapter is intended to provide for the siting of large wind energy conversion systems in an orderly manner compatible with environmental preservation, sustainable development, and the efficient use of resources.

Minn. R. 7854.0200, PURPOSE. This single narrative sentence regarding purpose is not wind siting criteria.

Although commenters do not argue that the applicable PPSA siting criteria found in §216E.03, Subd. 7 fulfills the legislative mandate, one might, but to do so would be disingenuous because that criteria and its associated rules were in existence long before the legislative mandate was passed, and contain no wind specific mandate, as required by Minn. Stat. §216F.05(1).

B. APPLICANTS, COMMERCE, ADMINISTRATIVE LAW JUDGES, COMMENTERS AND COMMISSION ALL IMPROPERLY RELY ON INAPPLICABLE COUNTY AND SMALL WIND STANDARDS.

To further demonstrate this lack of mandated criteria for siting of Large Wind Energy Conversion Systems (LWECS), Applicants, the Commission, and its agent in siting, the Department of Commerce, Commenters, and Administrative Law Judge's rely on standards developed to assist counties in wind projects, as provided by Minn. Stat. §216F.08,¹ and for siting wind projects under 25MW. These are standards, not rules – they were not developed in a rulemaking process, and are not incorporated into the wind siting rule chapter, and do not have the effect of law. See Minn. R. Ch. 7854.

The standards improperly relied on by regulators, and improperly used by applicants in project design, are those in Exhibit A of the Commission's county/small wind Order of January 11, 2008.² This order contains the standards expressly Ordered for use by counties and for small wind projects under 25 MW. Regarding setbacks, however, these standards are frequently cited in LWECS Applications, LWECS Summaries and Recommendations, Commerce Comments, Staff Briefing Papers, Commission Orders, and Site Permits for **LARGE** Energy Conversion Systems. For example, the Order contains a table frequently used in LWECS proceedings, particularly the first four setback categories:

¹ See Attachment A, Small Wind Siting Standards, PUC Docket E,G-999/M-07-1102.

² Id.

Exhibit A

Minnesota Public Utilities Commission

General Wind Turbine Permit Setbacks and Standards for Large Wind Energy Conversion System (LWECS) Permitted Pursuant to Minnesota Statute 216F.08

Resource Category	General Permit Setback	Minimum Setback
Wind Access Buffer (setback from lands and/or wind rights not under permittee's control)	Wind turbine towers shall not be placed less than 5 rotor diameters (RD) from all boundaries of developer's site control area (wind and land rights) on the predominant wind axis (typically north-south axis) and 3 rotor diameters (RD) on the secondary wind axis (typically east-west axis), without the approval of the permitting authority. This setback applies to all parcels for which the permittee does not control land and wind rights, including all public lands.	3 RD (760 – 985 ft) on east-west axis and 5 RD (1280 – 1640 ft) on north-south using turbines with 78 – 100 meter rotor diameters.
Internal Turbine Spacing	The turbine towers shall be spaced no closer than 3 rotor diameters (RD) for crosswind spacing (distance between towers) and 5 RD downwind spacing (distance between strings of towers). If required during final micro siting of the turbine towers to account for topographic conditions, up to 20 percent of the towers may be sited closer than the above spacing but the permittee shall minimize the need to site the turbine towers closer.	5 rotor diameters downwind spacing 3 rotor diameters apart for crosswind spacing
Noise Standard	Project must meet Minnesota Noise Standards, Minnesota Rules Chapter 7030, at all residential receivers (homes). Residential noise standard NAC 1, L50 50 dBA during overnight hours. Setback distance calculated based on site layout and turbine for each residential receiver.	Typically 750 – 1500 ft is required to meet noise standards depending on turbine model, layout, site specific conditions.
Homes	At least 500 ft and sufficient distance to meet state noise standard.	500 feet + distance required to meet state noise standard.

In the recent Freeborn Wind docket, the Applicant cited the Small Wind Standards as the basis for its project layout, Commerce addressed these standards, and the Administrative Law Judge expressly cites these inapplicable county and small wind standards at least nine times!³

According to Freeborn Wind, the Project's layout follows the wind energy conversion facility siting criteria outlined in the Commission's Order Establishing General Wind Permit Standards, MPCU Docket No. E,G999/M-0701102 (Jan. 11, 2008), and Freeborn Wind's guidelines and best practices.

Recommendation, p. 15, referring to Application 6-12 (incorrect citation); see Application, p. 6, 5.1.1 General Setback Conditions; see Attachment B, Freeborn Application, reference to "MPUC Standards," pps. 6-10, 29, 119-120⁴. It is noteworthy that in that Recommendation, the ALJ

³ Findings of Fact, Conclusions of Law, and Recommendations, pps. 15, 23, 42 (FoF 217, fn. 331, 332, 333 & 334), 62. See PUC Docket IP-6946/WS-17-410.

⁴ Application, PUC Docket IP-6946/WS-17-410.

references that same “Standards” document in three ways:

- Commission’s Order Establishing General Wind Permit Standards, MPUC Docket No. E,G999/M-07-1102 (Jan. 11, 2008)⁵
- *In re Establishment of General Permit Standards for the Siting of Wind Generation Projects Less than 25 Megawatts*, MPUC Docket No. E,G999/M-07-1102, MPC Order Establishing General Wind Permit Standards at 3-4 (Jan. 11, 2008) (eDocket No. 4897855).⁶
- Ex. AFCL-8 (*In re Establishment of General Permit Standards for the Siting of Wind Generation Projects Less than 25 Megawatts*, MPUC Docket No. E,G999/M-07-1102, MPC Order Establishing General Wind Permit Standards at 3-4 (Jan. 11, 2008) (eDocket No. 201712-138411-06).

There no apparent recognition by Applicants, Commerce, and the Commission that these are all the same inapplicable document, and in the first citation and in the application, no acknowledgement by ALJ or Applicants that it is an order for “*the Siting of Wind Generation Projects Less than 25 Megawatts*. ”

Despite this improper use of the small wind standards, the county/small standards wind were referenced in the 2012 letter rejecting the individual Petition for Rulemaking of Carol A. Overland, acknowledging that the standards were for small wind:

We observe that the Commission’s order in MPUC docket M-07-1102 was not a rulemaking, but a statutorily mandated wind siting standards development process for wind projects 5-25MW in size, intended, as stipulated in MS 216F.08, to be applied to county and state permits for wind projects under 25MW in size.

Petition Attachment C, PUC letter rejecting Overland Petition, April 2, 2012.

A review of wind permit dockets since 2008 would reveal many references to these county/small wind siting standards in Applications, an ALJ Recommendation (if any) or ALJ Summary, Draft Site Permit, Commerce comments, Commission Order and/or Permit.

⁵ p. 15, Findings of Fact, Conclusions of Law, and Recommendations, pps. 15, 23, 42 (FoF 217, fn. 331, 332, 333 & 334), 62. PUC Docket IP-6946/WS-17-410

⁶ Id. p. 23. 62.

C. PERMITS OFTEN USE ARBITRARY SETBACKS.

The “Exhibit A” of the county and small wind standards Order cited by regulators are also supplemented by utterly arbitrary setbacks with no basis in fact or law. For example, the county/small wind setbacks for noise and from homes are:

- Noise Standard - Typically 750-1500 ft is required to meet noise standards depending on turbine model, layout, and site specific conditions.
- Homes - 500 ft + distance to meet state noise standard.

Exhibit A, *In re Establishment of General Permit Standards for the Siting of Wind Generation Projects Less than 25 Megawatts*, MPUC Docket No. E,G999/M-07-1102, MPC Order Establishing General Wind Permit Standards (Jan. 11, 2008).

A look at Commerce’s permit template and in Draft Site Permits and Site Permits shows that despite frequent references to these inapplicable county/small wind standards, rather than even improperly utilizing these inapplicable county and small wind standards, or even a “case by case” determination of setbacks, the Department of Commerce and Commission utilizes a Site Permit template with an arbitrary 1,000 foot setback from homes. In a recent evidentiary hearing, when Commerce’s project manager was asked about the origin of the 1,000 foot setback in Commerce’s template and draft site permits:

Thousand foot. I don’t know exact – the exact location of where that comes from. But in the most recent site permit applications that have been approved in the most recent site permits that have been issued by the Commission, that has been the standard distance that they’ve approved, along with the consideration of noise standards being met.

Davis, Tr. Vol. 2, p. 172-173, Freeborn Wind Site Permit Docket, IP-6946/WS-17-410. There is no explanation for this setback distance and there is a scientific basis for a larger setback.

The setback distance in the standards for county/small wind for noise is “typically 750-1,500 feet” under Exhibit A of the Order, which is inconsistent with the Commerce template setback of 1,000 feet. Use of this 1,000 foot setback is also, and more importantly, inconsistent

with the Commerce distance of documented exceedences in Bent Tree Noise Monitoring Study at 1,150 feet (Langrud) and 1,525 feet (Hagen). See p. 11, Bent Tree Noise Monitoring Study⁷.

Commerce's use and the Commission's acceptance of a wind siting template with terms that are not understood or justified and without scientific basis is not acceptable. This is not an individual issue, but rather a systemic problem in wind siting, and one covered by the legislative mandate to promulgate rules for siting LWECS. The Commission must do its job and comply with the mandate.

II. SECTIONS OF MINN. R. CH. 7854 ADOPTED OSTENSIBLY TO COMPLY WITH THE LEGISLATIVE RULE MANDATE ARE INADEQUATE AND INSUFFICIENT.

Although there are some sections of the rulemaking mandate that are arguably "addressed" in Minn. Ch. 7854, there are other sections which are obviously inadequate and insufficient, and which lead to acknowledged problems and arbitrary enforcement.

An example related to siting criteria is found in noise modeling and monitoring. Minn. Stat. §215F.05(1). Compliance with MPCA's noise regulation is required as a site permit condition, and although Commerce has adopted guidelines, there are no rules, no law, regarding wind specific pre-construction modeling and post-construction monitoring. Further, although nominal compliance with the provision that rules be promulgated regarding revocation or suspension of a site permit is evidenced in the rule stating just that, and only that, the process to get to revocation or suspension is not laid out.

Another example is that of environmental review. The legislative rulemaking mandate required "rules to address"... "criteria that the commission shall use to designate LWECS sites, which must include the impact of LWECS on humans and the environment;" and "requirements

⁷ See Bent Tree docket, PUC WS-08-573:

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for environmental review of the LWECS.” There is no environmental review of impacts of wind projects, only information provided by an applicant in the application.

Yet another example of failure of the Commission to address the rulemaking mandate is found in every LWECS site permit proceeding -- decommissioning, “including the requirement to restore, to the extent possible, the area affected by construction of the LWECS to the natural conditions that existed immediately before construction of the LWECS.” In the rule promulgated, specific decommissioning information required to be included in an application:

Decommissioning and restoration.

The applicant shall include the following information regarding decommissioning of the project and restoring the site:

- A. the anticipated life of the project;
- B. the estimated decommissioning costs in current dollars;
- C. the method and schedule for updating the costs of decommissioning and restoration;
- D. the method of ensuring that funds will be available for decommissioning and restoration; and
- E. the anticipated manner in which the project will be decommissioned and the site restored.

Minn. R. 7854.0500, Subp. 13.

The 2001 SONAR for Minn. Ch. 7854, specifically regarding Minn. R. 7854.0500, Subp. 13, states:

The EQB wants to know upfront how the developer plans to pay for removal of the turbines at the end of their useful life. Since the wind turbines may last for thirty years or more, and the ownership of the project may change over the years, some arrangements must be made from the start to provide funding for the ultimate decommissioning. In other cases wind developers have created funds specially set aside for this purpose, and the funding comes from payments made periodically from sale of the electricity. The EQB is not promulgating one specific requirement for ensuring funds are available for decommissioning, and the EQB will allow applicants to be creative provided the EQB can be assured the money will be there when needed.

SONAR, p. 21 – See GWT Petition, Attachment B.

However, contrary to this rule, the decommissioning information is not required in an application, because in practice, Commerce does not hold an applicant accountable to provide this information, and despite this information not being provided, Commerce recommends to the Commission that applications be declared complete, and applications are deemed “substantially complete” without this decommissioning information, and without a directive to provide it. During the permitting process, there is no disclosure of decommissioning information, no vetting, nothing for review and comment, nothing provided in response to information requests, no information provided in testimony or in response to cross-examination. In practice, decommissioning is a subject not addressed until after a permit has been granted, just before construction, out of public view. Instead of information disclosed up front, decommissioning plans and financial assurance are developed and approved in private, out of the public eye, with no opportunity to address adequacy of the plan and financial assurance.

The decommissioning rule is an example of an inadequate and insufficient rule which is not enforced by Commerce or the Commission, and which is in urgent need of updating.

III. TIMING IS NOT A VALID REASON TO DENY PETITION FOR RULEMAKING – IT’S BEEN OVER 20 YEARS, AND IT’S TIME!

The Commission and several commenters raise “timing” as an issue, that wind rulemaking should not begin until the rulemaking for Minn. R. Ch. 7849 and 7850 is completed, that rulemaking now would be premature. Commenters, Commission staff, and Commissioner Tuma have claimed that the ongoing Minn. R. 7849 and 7850 will inform a wind rulemaking proceeding. The Commission apparently buys into this argument, stating:

Having considered the petition and comments filed, the Commission is not persuaded that now is the time to consider possible amendments to its wind siting rules, Chapter 7854. The Commission currently has an open and ongoing rulemaking proceeding concerning power plant siting, the outcome of which would likely inform the scope and structure of any future rulemaking proceeding on the Commission’s other siting rules.

Order, p. 3.

This paragraph implies that there is overlap between the Minn. R. Ch. 7849 and 7850 rulemaking with Minn. Ch. 7854. That's a false presumption – there is no overlap. That lack of siting criteria for wind is a primary reason we need rulemaking. There is no wind specific siting criteria in the PPSA's Minn. Stat. §216E.03, Subd. 7, or Minn. R. Ch. 7850, and participants in wind siting dockets, Power Plant Siting Act Annual Hearing⁸, and even in the process of the Minn. R. 7849 and 7850 rulemaking, are constantly reminded that the Power Plant Siting Act is inapplicable to wind.⁹

Even if timing was an issue, that rulemaking is essentially completed, after over SIX years of Advisory Committee meetings and approval by the Commission for release for public comment. It is no secret or surprise what is proposed for Minn. R. Ch. 7849 and 7850, it's been a matter of public record all this time. This argument is specious because there is no overlap of these rules – anyone participating in the six years rulemaking docket, and particularly Commission staff, knows there is no overlap. For those not participating in that docket, it is available online to review the proposed rules and confirm lack of overlap. Further, because rulemaking does take so long, the Minn. R. Ch. 7849 and 7850 will be complete long before a wind siting rulemaking gets traction and has substantive proposals.

Wind projects have now been sited for 20 years with no identifiable siting criteria in the wind rule chapter. Premature? No, it's long overdue.

⁸ It is clear that Commissioners do not review the Power Plant Siting Act Annual Hearing summaries and comments. You may find them here, identified by year and docket number: [PPSA Annual Hearing – December 22, 2017, https://legalelectric.org/weblog/16493/](https://legalelectric.org/weblog/16493/) . The issues raised in GWT's Petition have been raised at PPSA Annual hearing over and over and over and over. Participants have been repeatedly told PPSA does not apply to wind, contrary to Minn. Stat. §216F.02, which identifies which parts of the PPSA are not exempted and which do apply.

⁹ Which is false, much of the Power Plant Siting Act DOES apply. See Minn. Stat. §216F.02.

Whether a decommissioning plan or provision of noise studies to demonstrate potential compliance with state rules, the process must be public, for the legislature has directed that “[t]he commission shall adopt broad spectrum citizen participation as a principal of operation. The form of public participation shall not be limited to public hearings and advisory task forces and shall be consistent with the commission's rules and guidelines as provided for in section [216E.16](#).” Minn. Stat. §216E.08.

The Commission’s decision is contrary to the legislature’s rulemaking mandate, it is unsupported by substantial evidence in this docket’s record, and it is the very essence of “arbitrary and capricious.” Minn. Stat. §14.69. Further, failure to initiate rulemaking is ignoring the lack of siting standards and the need for precautionary siting due to the difficulties of mitigation once a project is built, a known and contentious problem with wind siting. A decision of the Commission is not due any measure of deference if it does not utilize its expertise in making the decision.

IV. RULEMAKING WOULD NOT BE PREMATURE. IT’S OVERDUE!!

Commenters, Commerce, and PUC Staff argue that wind rulemaking at this time would be premature. Commissioner Tuma also made this argument in deliberations, though generally, with no specifics. Tr. at 3-4, PUC Meeting, 9/20/2018. The legislature passed the rulemaking mandate in 1995. It’s now 2018 – 1995 was 23 years ago.

A. POSTPONING RULEMAKING EXACERBATES SITING UNCERTAINTY AND NEED FOR PREVENTATIVE SITING

Some suggest we wait until Minn. R. Ch. 7849 and 7850 rulemaking is completed. That’s been six years so far in that process. We’ve been actively working on that for the entire six years, Goodhue Wind Truth’s Marie McNamara and counsel Carol A. Overland are well aware that rulemaking takes a long time. Commentors raising that issue have not been present in

the Minn. R. 7849 and 7850 rulemaking, actively participating, and apparently have no idea the content of the draft rules before the Commission. These Goodhue Wind Truth Petitioners have been present, and throughout that rulemaking have been promised that “wind rulemaking is next.”

Now is the time to start, as it appears that Minn. R. Ch. 7849 and 7850 may be completed in the foreseeable future. It might even spur that process forward! The sooner rulemaking begins for Minn. R. Ch. 7854, the sooner it will be completed... bringing us to...

B. THIS IS NOT THE FIRST WIND RULEMAKING PETITION – ACTION IS LONG OVERDUE

A wind rulemaking petition was submitted in 2012, which was rejected by the Executive Secretary, requesting it be revised for submission. This letter was included as an exhibit in the Goodhue Wind Truth 2018 Petition for Rulemaking. Our Petition noted that standards were adopted for county and small wind in MPUC Docket M-07-1102, which, as correctly noted in Mr. Wolf’s letter of April 2, 2012, was not a rulemaking. Wolf’s letter states that the Order and Standards was a:

... statutorily mandated wind siting standards development process for wind projects 5-25 MW in size, intended, as stipulated in MS 216F.08, to be applied to county and state permits for wind projects under 25MW in size.

Letter, Dan Wolf for Burl Haar, Public Utilities Commission, April 2, 2012 (Petition, Attachment C).

Yes, that is correct. The express purpose and result of that docket, M-07-1102, was NOT that it was to be used for siting LWECS, but for siting by counties and for Commission LWECS permits under 25MW.

In addition to the above-noted prior rulemaking petition, others have raised these issues and been advised to file a rulemaking petition. For example, in a discussion regarding wind

siting issues, Commission staff recommended to Kristi Rosenquist that she submit a rulemaking petition to address the issues she raised. See Comment of Kristi Rosenquist.¹⁰ The need for rulemaking is nothing new.

V. CONSENSUS ON ISSUES IS NOT A PREREQUISITE TO RULEMAKING

In its Order, the Commission states:

Further, the varied comments received in this docket suggest that there is not informed consensus on many issues that continue to be developed in individual cases, which provide a better forum for identifying and addressing project-specific issues.

Order, p. 3.

Consensus is not a prerequisite to rulemaking. If parties are not informed about issues, that is for them to address. Education would logically occur as parties participate in the rulemaking process. In rulemaking, consensus can develop on some issues, and perhaps not on others. That's how rulemaking works when an Advisory Committee is utilized. Minn. Stat. §14.101. To expect consensus at the end of a rulemaking process is a stretch, but to claim consensus as a deciding factor for a rulemaking petition is absurd and baseless.

Further, commenters conflate the systemic issues triggering this rulemaking petition with the many issues coming forward in wind siting dockets. Goodhue Wind Truth's Petition for Rulemaking is not about project-specific issues – it uses project-specific instances to demonstrate the need for broad rules. The Petition identifies systemic problems that rulemaking would, and should, address, and the overall issue that the Commission has no siting criteria rules as mandated, contemplated, by the legislature. That failure of the Commission, and before it, the

¹⁰

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Environmental Quality Board, to comply with the legislative mandate is the basis for the rulemaking petition.

Consensus is not a prerequisite to rulemaking, and Goodhue Wind Truth's Petition is broad, pertaining to the legislative mandate, and not project specific.

VI. THE COMMISSION SHOULD RECONSIDER ITS REJECTION OF GOODHUE WIND TRUTH'S RULEMAKING PETITION, AND ORDER COMMENCEMENT OF RULEMAKING AND AUTHORIZE AN ADVISORY COMMITTEE.

The rulemaking for LWECS remains to be completed, the mandated development of siting criteria remains to be completed. Goodhue Wind Truth, pursuant to Minn. R. 7829.3000, respectfully petitions the Public Utilities Commission to reconsider its decision of September 26, 2018, rejecting the Goodhue Wind Truth Petition for Rulemaking. Goodhue Wind Truth requests that the Commission reverse its decision and grant this rulemaking Petition and comply with the legislative mandate. The Commission's rationale of timing and lack of consensus do not provide a legitimate basis for rejection of the Goodhue Wind Truth Petition for Rulemaking.

If not now, when? Isn't 23 years long enough?



Date: October 16, 2018

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Attachment D - GWT Petition

**Order Establishing General Wind Permit Standards
for County Siting and Small Wind - January 11, 2008**

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

LeRoy Koppendrayner
David C. Boyd
Thomas Pugh
Phyllis A. Reha

Chair
Commissioner
Commissioner
Commissioner

In the Matter of Establishment of General
Permit Standards for the Siting of Wind
Generation Projects Less than 25 Megawatts

ISSUE DATE: January 11, 2008

DOCKET NO. E,G-999/M-07-1102

ORDER ESTABLISHING GENERAL WIND
PERMIT STANDARDS

LEGISLATIVE HISTORY

In 1995, the Minnesota Legislature enacted the Minnesota Wind Siting Act¹ which established jurisdictional thresholds and procedures to implement the state's authority to issue site permits for large wind energy conversion systems (LWECS). Permanent rules to implement the Wind Siting Act were adopted by the Minnesota Environmental Quality Board (EQB) in February 2002.²

In 2005, the Legislature transferred the site permitting authority for LWECS (with a combined nameplate capacity of 5 megawatts or more), to the Minnesota Public Utilities Commission. Site permits for wind facilities with a combined nameplate capacity of less than 5 megawatts (small wind energy conversion systems, or SWECS) are permitted by local units of government.

Amendments to the Wind Siting Act were enacted during the 2007 legislative session. The amendments:

- establish definitions and procedures requiring the commissioner of the Department of Commerce to make LWECS project size determinations for permit applications submitted by counties, and set forth that an application to a county for a LWECS permit is not complete without a project size determination from the commissioner;
- provide the option for counties to assume the responsibility for processing applications for permits required by the Wind Siting Act for LWECS facilities less than 25 MW in total nameplate capacity commencing January 15, 2008;

¹ Minnesota Statutes Chapter 216F.

² Minnesota Rules Chapter 7836.

- provide that the Commission shall establish general permit standards by January 15, 2008; and
- allow the Commission and counties to grant variances to the general permit standards and allows counties to adopt ordinance standards more restrictive than the Commission's general permit standards.

PROCEDURAL HISTORY

At its August 23, 2007 meeting, the Commission requested that the Department of Commerce's Energy Facility Permitting staff consult with stakeholders and prepare for the Commission's consideration general permit standards and setback recommendations to satisfy the legislative mandate.

On September 28, 2007, the Energy Facility Permitting staff issued a notice of comment period to all Minnesota county planning and zoning administrators, to the Power Plant Siting Act general mailing list and to persons on recent wind project mailing lists. The Energy Facility Permitting staff also made presentations about this proceeding to pertinent associations in St. Cloud, Winona, Fergus Falls, and Pope County.

The Commission received some 26 written comment letters during the comment period. Comments were submitted by:

- Wadena County
- Southwest Regional Development Commission
- Lyon County Board of Commissioners
- Dakota County
- Lyon County Public Works
- Minnesota Department of Natural Resources
- PPM Energy
- The Minnesota Project
- Community-based energy development (C-BED) project participants and supporters ³

On December 20, 2007, the Commission met to consider the matter. Michael Reese and Steve Wagner, representing Pope and Stevens County C-BED projects, appeared and made comments.

³ Seventeen persons who identified themselves as participants and advocates for C-BED projects submitted an identical form letter regarding setback issues, the wind access buffer, elimination of wind right requirements for small acreages, and capping costs of required permit studies.

FINDINGS AND CONCLUSIONS

I. The Comment Process

Through written or oral comments, most stakeholders indicated general agreement that the state wind site permitting process, standards and setbacks provide public safety protections, protect the wind rights of landowners and require permittees to conduct due diligence to avoid unforeseen impacts, which has resulted in orderly wind development.

Several of the comments recommended that the general wind permitting standards and setbacks should require that wind projects permitted by Minnesota counties be subject to the same level of pre-construction studies, due diligence, and wind access buffer setbacks as LWECS projects. Other comments focused on specific areas of concern and requested that the Commission modify certain existing LWECS permit setbacks or conditions for the general permit standard.

Some persons making comments suggested changes to some of the Commission's established standards and setbacks, which will be discussed below.

II. Commission Action

After careful consideration, the Commission herein adopts the attached "General Wind Turbine Permit Setbacks and Standards for LWECS Facilities Permitted by Counties Pursuant to Minnesota Statute 216F.08." Exhibit A. These standards and setbacks maintain most of the Commission's established LWECS permit standards and setbacks which have been in effect for the last twelve years, with the relatively minor changes set forth below.

A. Wetland Setbacks

The Minnesota Department of Natural Resources (DNR) initially recommended that the Commission establish a 1000 foot turbine setback from all wetlands, streams, rivers and lakes listed in the state Public Waters Inventory and those listed on the National Wetlands Inventory.⁴ The DNR submitted a letter on December 7 which supported deferring action on the wetland setback issue to provide time to further explore the issue.

The DNR's proposal with respect to wetlands would encompass a large and significant change from the Commission's existing standards, which prohibit placement of wind turbines in wetlands, but require no setbacks from wetlands. Were the Commission to adopt this proposal, it would exclude significant amounts of land from future wind development. As the DNR has agreed to defer the issue pending further factual development, the Commission will retain its current practice of prohibiting placement of wind turbines in wetlands, but requiring no setback from them, as an interim standard.

⁴ The DNR's proposed wetland setback would not apply to Minnesota Wetlands Conservation Act "exempt" or "farmed" wetlands.

Having determined that the Commission cannot act on the DNR's recommendation unless and until there is further record development of this issue, the Commission will request the Energy Facility Permitting staff to investigate wetland setback issues with stakeholders and develop recommendations for future Commission consideration.

B. Wind Access Buffer Setback

Seventeen C-BED participants and advocates filed comments on setback issues.⁵ They asserted that the wind access buffer setback historically applied by the Commission⁶ to protect the wind rights of landowners adjacent to, but not participating in, the permitted project is overly conservative and does not economically or efficiently utilize state wind resources. The C-BED advocates requested a reduction of the wind access buffer to a distance of two rotor diameters on the cross wind axis and four rotor diameters on the predominant axis.

The DNR requested that the Commission require the same three rotor diameter by five rotor diameter wind access buffer setback to publicly owned conservation lands, such as state wildlife management areas.

Another commentor, PPM Energy, supported the current wind access buffer setbacks, considering the prevailing wind directions in Minnesota and the wake effects, or turbulence, between wind turbines.

The Energy Facility Permitting staff informed the Commission that their own experience, as well as information from experts and practitioners in the field of wind turbine siting, has consistently affirmed that wind turbines be spaced at least four rotor diameters and up to twelve rotor diameters apart on the predominant wind axis to minimize the effects of wind turbine induced turbulence downwind.

Therefore, the Commission will maintain its current setbacks of three rotor diameters on the secondary wind axis and five rotor diameters on the predominant axis. This buffer setback has been shown to protect wind rights and future development options of adjacent rights owners. At the request of the DNR, the Commission will also apply this same setback to public lands.

⁵ The wind access buffer setback is an external setback from lands and wind rights outside of an applicant's site control, to protect the wind and property rights of persons outside the permitted project boundary and persons within the project boundary who are not participating in the project.

⁶ The Commission has historically imposed a wind access buffer of three rotor diameters on the crosswind or secondary axis (typically east-west) and five rotor diameters on the predominant or downwind axis (typically north-south).

1. Setbacks from Small Parcels

C-BED participants requested that the Commission eliminate the wind access buffer setback from non-participating property owners with land parcels less than fifteen acres in size.

The Commission declines to do so. Historically, the wind projects for which Commission review and permits have been granted have been composed of dozens of individual parcels of land and wind rights, totaling thousands of acres of land for each LWECS project. For these many years, permittees have been able to develop projects while applying the wind access setbacks from small, non-participating landowners. After consideration, the Commission finds no rationale in statute or rule to treat one person's wind rights differently from another's.

2. Internal Turbine Spacing

C-BED advocates also requested that the Commission not regulate turbine spacing within an LWECS facility, nor require wake analyses prior to construction, claiming that these provide only a snapshot of expected performance at a facility.

The Commission declines to implement this request. The purpose of the internal turbine spacing setback and requirement that wake loss studies be submitted is to ensure that LWECS projects permitted by the Commission are designed and sited in a manner that ensures efficient use of the wind resources, long term energy production, and reliability.⁷

Maintaining the Commission's three rotor by five rotor dimension internal turbine spacing setback and requirement to submit wind wake loss studies is a reasonable means by which to accomplish these goals.

3. Setbacks from Roads and Recreational Trails

The DNR and Dakota County suggested increasing setbacks from public road rights-of-way to total turbine height; the DNR proposed applying the same setback from state trails and other recreational trails.⁸

As amended, Minn. Stat. § 216F.081 allows counties to adopt more restrictive public road setback ordinances than the Commission's general permit standards. The amended statute also directs the Commission to take those more restrictive standards into consideration when permitting LWECS

⁷ See Minn. Stat. § 216F.03 and Minn. Rules Part 7836.0200.

⁸ Dakota County also proposed establishing new, unspecified setbacks where high volume roads are present or to accommodate planned transportation expansion projects. The Commission's general permit standards ensure that LWECS are sited in a manner which will not interfere with future urban developments, including taking into consideration local comprehensive plans when reviewing LWECS site permits.

within such counties. Finally, the Commission or a county may require larger road setbacks on a case-by-case basis in situations where a greater setback is justified.

Here, maintaining the existing minimum 250 foot turbine setback from the edge of public road rights-of-ways continues to be reasonable. The purpose of the setback is to prevent ice from shedding off wind turbines onto public roads. No reports of ice shed from turbines being deposited onto public roads has come to the attention of state regulators, despite inquiries made to wind developers, maintenance technicians, and local government officials about the subject.

The Commission will therefore adopt a case-by-case approach to handling issues of this type where necessary and in the public interest. The Commission will adopt this same case-by-case approach to address setbacks from high volume roads that may be widened in future transportation expansion projects.

The Commission also concludes that setbacks should be developed and applied to state trails on a case-by-case basis. State trails, which are generally multi-use recreational trails, traverse a wide variety of terrains and landscapes across the state. Setbacks are primarily to enhance the aesthetic enjoyment of the trail user; however, the needs and desires of the owner of the property through which the trail runs must also be considered.

A case-by-case analysis is best suited in recognition of many types of permanent and temporary recreational trails situated across the state.

C. Miscellaneous Issues

Finally, comments and recommendations were offered on a variety of matters as set forth below. After review, the Commission finds that no changes to the Wind Siting Rules or General Permit Standards are necessary to address these issues.

Comments and recommendations were made concerning decommissioning and facility retrofit, urging review of permits if a permittee seeks to retrofit or otherwise modify the permitted facility. The Wind Siting Rules and Commission-issued LWECS permits have always required decommissioning plans nearly identical to the language recommended by the commentor. The Commission or counties have the ability to reassess and/or amend requirements for decommissioning plans as needed throughout the life of the LWECS facility permitted. Also, a facility retrofit or expansion would require Commission siting process review and site permit action, in accordance with Minn. Rules, Chapter 7836. These comments support the need to retain such requirements in the general wind permit standards.

The Southwest Regional Development Council offered comments on transportation issues related to transporting wind project equipment to the site, bridge and weight restrictions, local road permits required and construction related road damages. Issues such as these will continue to be handled by the governmental bodies controlling each road right-of-way, as set forth in Commission wind permit conditions. These comments support the need to retain such requirements in the general wind permit standards.

The Southwest Regional Development Council requested clarification on determination of project size. Minn. Stat. § 216F.011 provides a process and standards for the Commission and the Department of Commerce to use in making LWECS size determinations. Training materials and sessions will also be provided by the Department of Commerce Energy Facility Permitting staff.

Finally, the C-BED participants requested that permit costs for the site permit and any additional studies be capped at \$1000.00. Costs associated with site permit processing by the Commission are governed by Minn. Rule, part 7836.1500, which establishes that permit applicants shall pay the actual costs in processing an application.

ORDER

1. The Commission herein adopts the Large Wind Energy Conversion System General Wind Turbine Permit Setbacks and Standards proposed by the Department of Commerce Energy Facility Permitting staff, attached as Exhibit A. The general permit standards shall apply to large wind energy conversion system site permits issued by counties pursuant to Minn. Stat. 216F.08 and to permits issued by the Commission for LWECS with a combined nameplate capacity of less than 25,000 watts.
2. The Commission requests that the Department of Commerce Energy Facility Permitting staff further investigate wetland setback issues with stakeholders and develop recommendations for Commission consideration.
3. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION



Burl W. Haar
Executive Secretary



(S E A L)

This document can be made available in alternative formats (i.e. large print or audio tape) by calling 651.201.2202 (voice). Persons with hearing or speech disabilities may call us through Minnesota Relay at 1.800.627.3529 or by dialing 711.

Exhibit A

Minnesota Public Utilities Commission

General Wind Turbine Permit Setbacks and Standards for Large Wind Energy Conversion System (LWECS) Permitted Pursuant to Minnesota Statute 216F.08

Resource Category	General Permit Setback	Minimum Setback
Wind Access Buffer (setback from lands and/or wind rights not under permittee's control)	Wind turbine towers shall not be placed less than 5 rotor diameters (RD) from all boundaries of developer's site control area (wind and land rights) on the predominant wind axis (typically north-south axis) and 3 rotor diameters (RD) on the secondary wind axis (typically east-west axis), without the approval of the permitting authority. This setback applies to all parcels for which the permittee does not control land and wind rights, including all public lands.	3 RD (760 – 985 ft) on east-west axis and 5 RD (1280 – 1640 ft) on north-south using turbines with 78 – 100 meter rotor diameters.
Internal Turbine Spacing	The turbine towers shall be spaced no closer than 3 rotor diameters (RD) for crosswind spacing (distance between towers) and 5 RD downwind spacing (distance between strings of towers). If required during final micro siting of the turbine towers to account for topographic conditions, up to 20 percent of the towers may be sited closer than the above spacing but the permittee shall minimize the need to site the turbine towers closer.	5 rotor diameters downwind spacing 3 rotor diameters apart for crosswind spacing
Noise Standard	Project must meet Minnesota Noise Standards, Minnesota Rules Chapter 7030, at all residential receivers (homes). Residential noise standard NAC 1, L50 50 dBA during overnight hours. Setback distance calculated based on site layout and turbine for each residential receiver.	Typically 750 – 1500 ft is required to meet noise standards depending on turbine model, layout, site specific conditions.
Homes	At least 500 ft <u>and</u> sufficient distance to meet state noise standard.	500 feet + distance required to meet state noise standard.
Public Roads and Recreational Trails	The turbine towers shall be placed no closer than 250 feet from the edge of public road rights-of-way. Setbacks from state trails and other recreational trails shall be considered on a case-by-case basis.	Minimum 250 ft
Meteorological Towers	Meteorological towers shall be placed no closer than 250 foot from the edge of road rights-of-way and from the boundaries of developer's site control (wind and land rights). Setbacks from state trails and other recreational trails shall be considered on a case-by-case basis.	Minimum 250 ft
Wetlands	No turbines, towers or associated facilities shall be located in public waters wetlands. However, electric collector and feeder lines may cross or be placed in public waters or public water wetlands subject to DNR, FWS and/or USACOE permits.	No setback required pending further PUC action.

Native Prairie	Turbines and associated facilities shall not be placed in native prairie unless approved in native prairie protection plan (see native prairie standard below). Native prairie protection plan shall be submitted if native prairie is present.	No setback required.
Sand and Gravel Operations	No turbines, towers or associated facilities in active sand and gravel operations, unless negotiated with the landowner.	
Aviation (public and private airports)	No turbines, towers or associated facilities shall be located so as to create an obstruction to navigable airspace of public and private airports in Minnesota or adjacent states and/or providences.	Setbacks or other limitations determined in accordance with MNDOT Department of Aviation and Federal Aviation Administration requirements.

Additional General Permit Standards

Pre-Application Project Size Determination.

Pursuant to Minnesota Statute 216F.011, applications to a county for a LWECS permit are not complete without a project size determination provided by the Commissioner of the Minnesota Department of Commerce. Requests for size determination shall be submitted on forms provided by the Department of Commerce. Upon written request of a project developer and receipt of any supplemental information requested by the commissioner, the commissioner of commerce shall provide a written size determination within 30 days. In the case of a dispute, the chair of the Public Utilities Commission shall make the final size determination.

Pursuant to Minnesota Statute 216F.011, the total size of a combination of wind energy conversion systems for the purpose of determining what jurisdiction has siting authority must be determined according to the criteria below:

The nameplate capacity of one wind energy conversion system must be combined with the nameplate capacity of any other wind energy conversion system that:

- (1) is located within five miles of the wind energy conversion system;
- (2) is constructed within the same 12-month period as the wind energy conversion system; and
- (3) exhibits characteristics of being a single development, including, but not limited to, ownership structure, an umbrella sales arrangement, shared interconnection, revenue sharing arrangements, and common debt or equity financing.

Wind Turbines Design Standards. All turbines shall be commercially available, utility scale, not prototype turbines. Turbines shall be installed on tubular, monopole design towers, and have a uniform white/off white color. All turbine towers shall be marked with a visible identification number.

Underground and Overhead Electric Collection and Feeder Lines. The permittee shall place electrical lines, known as collectors, communication cables, and associated electrical equipment such as junction boxes underground when located on private property. Collectors and cables shall also be placed within or adjacent to the land necessary for turbine access roads unless otherwise negotiated with the affected landowner. This paragraph does not apply to feeder lines.

The permittee shall place overhead or underground 34.5 kV electric lines, known as feeders within public rights-of-way or on private land immediately adjacent to public rights-of-way if a public right-of-way exists, except as necessary to avoid or minimize human, agricultural, or environmental impacts. Feeder lines may be placed on public rights-of-way only if approval or the required permits have been obtained from the governmental unit responsible for the affected right-of-way. In all cases, the permittee shall avoid placement of feeder lines in locations that may interfere with agricultural operations. Notwithstanding any of the requirements to conduct surveys before any construction can commence, the permittee may begin immediately upon issuance of a LWECS site permit to construct the 34.5 kV feeder lines that will be required as part of the project.

Any guy wires on the structures for feeder lines shall be marked with safety shields.

Topsoil and Compaction. The permittee must protect and segregate topsoil from subsoil on all lands unless otherwise negotiated with affected landowner. Must minimize soil compaction of all lands during all phases and confine soil compaction to as small area as possible.

Fences. The permittee shall promptly repair or replace all fences and gates removed or damaged during project life and provide continuity of electric fence circuits.

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

Equipment Storage. The permittee shall negotiate with landowners to locate sites for temporary equipment staging areas.

Public Roads. The permittee shall identify all state, county or township roads that will be used for the LWECS Project and shall notify the permitting authority (PUC or county) and the state, county or township governing body having jurisdiction over the roads to determine if the governmental

body needs to inspect the roads or issue any road permits prior to use of these roads. Where practical, existing roadways shall be used for all activities associated with the LWECS. 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.

Prior to construction, the permittee shall make satisfactory arrangements (including obtaining permits) for road use, access road intersections, maintenance and repair of damages with governmental jurisdiction with authority over each road. The permittee shall notify the permitting authority (PUC or county) of such arrangements upon request.

Turbine Access Roads. The permittee shall construct the smallest number of turbine access roads it can. Access roads shall be low profile roads so that farming equipment can cross them and shall be covered with Class 5 gravel or similar material. When access roads are constructed across streams and drainage ways, the access roads shall be designed in a manner so runoff from the upper portions of the watershed can readily flow to the lower portion of the watershed.

Private Roads. The permittee shall promptly repair private roads, driveways or lanes damaged unless otherwise negotiated with landowner.

Soil Erosion and Sediment Control. Prior to commencing construction, the Permittee shall submit its National Pollution Discharge Elimination System (NPDES) construction permit issued by the Minnesota Pollution Control Agency (MPCA) to the permitting authority (PUC or county).

Cleanup. The permittee shall remove all waste and scrap that is the product of construction, operation, restoration and maintenance from the site and properly dispose of it upon completion of each task. Personal litter, bottles, and paper deposited by site personnel shall be removed on a daily basis.

Tree Removal. The permittee shall minimize the removal of trees and shall not remove groves of trees or shelter belts without the approval of the affected landowner.

Site Restoration. The permittee shall, as soon as practical following construction of each turbine, considering the weather and preferences of the landowner, restore the area affected by any LWECS activities to the condition that existed immediately before construction began, to the extent possible. The time period may be no longer than eight months after completion of construction of the turbine, unless otherwise negotiated with the landowner. Restoration shall be compatible with the safe operation, maintenance, and inspection of the LWECS.

Hazardous Waste. The permittee shall be responsible for compliance with all laws applicable to the generation, storage, transportation, clean up and disposal of hazardous wastes generated during any phase of the project's life.

Application of Herbicides. Restrict use to those herbicides and methods approved by the Minnesota Department of Agriculture. The permittee must contact landowner prior to application.

Public Safety. The permittee shall provide educational materials to landowners within the site boundaries and, upon request, to interested persons, about the Project and any restrictions or dangers associated with the LWECS Project. The permittee shall also provide any necessary safety measures, such as warning signs and gates for traffic control or to restrict public access to turbine access roads, substations and wind turbines.

Fire Protection. Prior to construction, the permittee shall prepare a fire protection and medical emergency plan in consultation with the fire department having jurisdiction over the area prior to LWECS construction. The permittee shall register the LWECS in the local government's emergency 911 system.

Native Prairie. Native prairie plan must be submitted if native prairie is present and will be impacted by the project. The permittee shall, with the advice of the DNR and any others selected by the permittee, prepare a prairie protection and management plan and submit it to the county and DNR Commissioner 60 days prior to the start of construction. The plan shall address steps to be taken to identify native prairie within the Project area, measures to avoid impacts to native prairie, and measures to mitigate for impacts if unavoidable. Wind turbines and all associated facilities, including foundations, access roads, underground cable and transformers, shall not be placed in native prairie unless addressed in the prairie protection and management plan. Unavoidable impacts to native prairie shall be mitigated by restoration or management of other native prairie areas that are in degraded condition, or by conveyance of conservation easements, or by other means agreed to by the permittee, DNR and PUC or county.

Electromagnetic Interference. Prior to beginning construction, the permittee shall submit a plan for conducting an assessment of television signal reception and microwave signal patterns in the Project area prior to commencement of construction of the Project. 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 reception or microwave patterns in the event residents should complain about such disruption or interference after the turbines are placed in operation. The assessment shall be completed prior to operation of the turbines. 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 LWECS and associated facilities so as to cause microwave, television, radio, telecommunications or navigation interference contrary to Federal Communications Commission (FCC) regulations or other law. In the event the LWECS and its associated facilities or its operations cause such interference, the permittee shall take timely measures necessary to correct the problem.

Turbine Lighting. Towers shall be marked as required by the Federal Aviation Administration (FAA). There shall be no lights on the towers other than what is required by the FAA.

Pre-Construction Biological Preservation Survey: The permittee, in consultation with DNR and other interested parties, shall request a DNR Natural Heritage Information Service Database search for the project site, conduct a pre-construction inventory of existing wildlife management areas, scientific and natural areas, recreation areas, native prairies and forests, wetlands, and any other biologically sensitive areas within the site and assess the presence of state- or federally-listed or threatened species. The results of the survey shall be submitted to the permitting authority (PUC or county) and DNR prior to the commencement of construction.

Archeological Resource Survey and Consultation: The permittee shall work with the State Historic Preservation Office (SHPO) at the Minnesota Historical Society and the State Archaeologist as early as possible in the planning process to determine whether an archaeological survey is recommended for any part of the proposed Project. The permittee will contract with a qualified archaeologist to complete such surveys, and will submit the results to the permitting authority (PUC or county), the SHPO and the State Archaeologist. The SHPO and the State Archaeologist will make recommendations for the treatment of any significant archaeological sites which are identified. Any issues in the implementation of these recommendations will be resolved by permitting authority (PUC or county) in consultation with SHPO and the State Archaeologist. In addition, the permittee shall mark and preserve any previously unrecorded archaeological sites that are found during construction and shall promptly notify the SHPO, the State Archaeologist, and the permitting authority (PUC or county) of such discovery. The permittee shall not excavate at such locations until so authorized by the permitting authority (PUC or county) in consultation with the SHPO and the State Archaeologist.

If human remains are encountered during construction, the permittee shall immediately halt construction at that location and promptly notify local law enforcement authorities and the State Archaeologist. Construction at the human remains location shall not proceed until authorized by local law enforcement authorities or the State Archaeologist.

If any federal funding, permit or license is involved or required, the permittee shall notify the MHS as soon as possible in the planning process to coordinate section 106 (36 C.F.R 800) review.

Prior to construction, 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 any archaeological sites are found during construction, the permittee shall immediately stop work at the site and shall mark and preserve the site and notify the permitting authority (PUC or county) and the MHS about the discovery. The permitting authority (PUC or county) and the MHS shall have three working days from the time the agency is notified to conduct an inspection of the site if either agency shall choose to do so. On the fourth day after notification, the permittee may begin work on the site unless the MHS has directed that work shall cease. In such event, work shall not continue until the MHS determines that construction can proceed.

Project Energy Production: The permittee shall, by July 15 of each year, report to the PUC on the monthly energy production of the Project and the average monthly wind speed collected at one permanent meteorological tower selected by the PUC during the preceding year or partial year of operation.

Site Plan: Prior to commencing construction, the permittee shall submit to the permitting authority (PUC or county) a site plan for all turbines, roads, electrical equipment, collector and feeder lines and other associated facilities to be constructed and engineering drawings for site preparation, construction of the facilities, and a plan for restoration of the site due to construction. The permittee may submit a site plan and engineering drawings for only a portion of the LWECS if the permittee is prepared to commence construction on certain parts of the Project before completing the site plan and engineering drawings for other parts of the LWECS. The permittee shall have the right to move or relocate turbine sites due to the discovery of environmental conditions during construction, not previously identified, which by law or pursuant to this Permit would prevent such use. The permittee shall notify the permitting authority (PUC or county) of any turbines that are to be relocated before the turbine is constructed on the new site.

Pre-construction Meeting: Prior to the start of any construction, the permittee shall conduct a preconstruction meeting with the person designated by the permitting authority (PUC or county) to coordinate field monitoring of construction activities.

Extraordinary Events: Within 24 hours of an occurrence, the permittee shall notify the permitting authority (PUC or county) of any extraordinary event. Extraordinary events include but shall not be limited to: fires, tower collapse, thrown blade, collector or feeder line failure, injured LWECS worker or private person, kills of migratory, threatened or endangered species, or discovery of a large number of dead birds or bats of any variety on site. In the event of extraordinary avian mortality the DNR shall also be notified within 24 hours. The permittee shall, within 30 days of the occurrence, submit a report to the permitting authority (PUC or county) describing the cause of the occurrence and the steps taken to avoid future occurrences.

Complaints: Prior to the start of construction, the permittee shall submit to the permitting authority (PUC or county) the company's procedures to be used to receive and respond to complaints. The permittee shall report to the permitting authority (PUC or county) all complaints received concerning any part of the LWECS in accordance with the procedures provided in permit.

As-Built Plans and Specifications: Within 60 days after completion of construction, the permittee shall submit to the county and PUC a copy of the as-built plans and specifications. The permittee must also submit this data in a geographic information system (GIS) format for use in a statewide wind turbine database.

Decommissioning Plan. As part of its permit application, the permittee must submit a decommissioning plan describing the manner the permittee plans on meeting requirements of Minnesota Rule 7836.0500, subpart 13.

Special Conditions: Pursuant to Minnesota Statute 216F.04 and Minnesota Rule 7836.1000, the permitting authority (PUC or county) may adopt special permit conditions to LWECS site permits to address specific issues on a case-by-case basis.