OAH 3-2500-21662-2
PUC IP-6701/WS-08-1233

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE PUBLIC UTILITIES COMMISSION

In the Matter of the Application of AWA Goodhue Wind, LLC, for a Large Wind Energy Conversion System Site Permit For the 78 MW Goodhue Wind Project in Goodhue County, Minnesota

GOODHUE COUNTY'S EXCEPTIONS TO FINDINGS OF FACT, CONCLUSIONS, AND RECOMMENDATIONS

This matter came on for hearing before Administrative Law Judge Kathleen D. Sheehy on March 15-17, 2011, at the Offices of the Minnesota Public Utilities Commission, 350 Metro Square Building, 121 Seventh Place East, St. Paul, Minnesota. The OAH record closed on April 8, 2011.

Todd J. Guerrero and Christina Brusven, Fredrickson & Byron, PA, 200 South Sixth Street, Suite 4000, Minneapolis, MN 55402-1425, appeared for AWA Goodhue Wind, LLC (Applicant).

Karen Finstad Hammel, Assistant Attorney General, 445 Minnesota Street, Suite 1400, St. Paul, MN 55101, appeared for the Department of Commerce, Office of Energy Security, Energy Facility Permitting Staff (Department or OES/EFP). OES/EFP did not appear as a party in this case; its participation was limited to the filing of comments and questioning of witnesses.[1]

Stephen Betcher, County Attorney, and Carol Lee, Assistant County Attorney, 454 West Sixth Street, Red Wing, MN 55066, appeared for Goodhue County.

Patrick J. Hynes, Strobel & Hanson, PA, 406 West Third Street, Suite 200, Red Wing, MN 55066, appeared for Belle Creek Township.

Carol Overland, Attorney at Law, P.O. Box 176, Red Wing, MN 55066, appeared for Goodhue Wind Truth.

Daniel S. Schleck, Mansfield Tanick & Cohen, PA, 1700 US Bank Plaza South, 220 South Sixth Street, Minneapolis, MN 55402-4511, appeared for the Coalition for Sensible Siting.[2]

[1] See Comments filed December 21, 2010.

[2] Mr. Schleck filed a Notice of Appearance indicating that he represented the City of Zumbrota, the City of Goodhue, and the Coalition for Sensible Siting. At the hearing, Mr. Schleck clarified that he was appearing only on behalf of the Coalition for Sensible Siting. See Tr. 1:12.

Commission staff members Tricia DeBleeckere, Bob Cupit, and Bret Eknes attended the hearing.

0.1 Goodhue County's Exception to Omission of Witnesses:

Witnesses who testified are as follows:

Witnesses for Applicant:
Charles Burdick, Senior Wind Energy Developer, National Wind, LLC
Pete Malamen, Consulting Engineers Group-Vice President & Senior Project Manager at CEG in Farmington, Minnesota
Chris Kalass, owns farm in wind project-participating – Minneola Township Treasurer
Mark Ward, Co-Manager Mesa Power Group's Renewable Energy Business
Lee (Cole) Robertson. BP Capital, Mesa Power Group-Co Manager of Activities of Mesa Power
Tim Casey, Senior Environmental Scientist & National Acoustics Program Manager-HDR Engineering
Dr. Mark Roberts, Principal Scientist and Director of Center for Occupational & Environmental Health for Exponent, a scientific research & consulting company
Ronald Peterson, Director of Environmental Services, Westwood Professional Services
Scott Zilka, Environmental Scientist-HDR Engineering; BS in Meteorology

Intervenor Goodhue County:
Lisa Hanni, Goodhue County Land Use Management Director, Surveyor & County Recorder
Michael Wozniak, Goodhue County Planning & Zoning Administrator

Intervenor Belle Creek Township:
Chad Ryan, Chairman, Belle Creek Township Board

Intervenor Goodhue Wind Truth:
Marie McNamara, Co-Founder, Goodhue Wind Truth

Bill O'Reilly, Resident, Belle Creek Township

Based on all the files, records, and proceedings herein, the Administrative Law Judge makes the following:

0.2 Goodhue County's Exception to Findings of Fact, Conclusions of Law and Recommendations:

Exceptions to the Administrative Law Judge's Findings of Fact, Conclusions and Recommendations are submitted to the Public Utilities Commission pursuant to the Commission's Rules of Practice and Procedure, Minn. R. 7829.0100 to 7829.3200. The

following sections on procedural posture will also be incorporated numerically into the numbered Findings where relevant.

Procedural Posture

The Administrative Law Judge stated that the issues for hearing as set out by the Public Utilities Commission (PUC) are as follows:

- Development of a record on every standard in Article 18 of the Goodhue County Ordinance on Wind Energy Conversion Systems that is more stringent than what the Commission has heretofore applied to large wind energy conversion systems (LWECS), for the purpose of making recommendations regarding whether the standard should be adopted for LWECS in Goodhue County;

- Development of a record on the question of "good cause" as that term appears in Minn. Stat. § 216F.081, for the purpose of making recommendations on whether there is good cause for the Commission to not apply the standard to LWECS in Goodhue County; and

- Development of a record to determine whether there is sufficient evidence regarding health and safety to support two specific portions of Article 18: the 10 rotor diameter setback for non-participating residents, contained in section 4, and the stray voltage requirements, contained in section 6. pp. 8-9, no. 34.

This assignment by the PUC to the Administrative Law Judge was noted to be a "Contested Hearing". Certificate of Need Docket, Order Deferring Consideration of Application for Certificate of Need (Nov. 5, 2010).

Minn. R. 7854.0900, Public Participation, at subpart 5, sets out the requirements of a contested case hearing. One requirement is that a material issue of fact has been raised. A second requirement is that the hearing must be conducted according to the rules of the Office of Administrative Hearings. The rule finally provides as follows:

> "For a contested case hearing, the Commission shall identify the issue to be resolved and limit the scope and conduct of the hearing according to applicable law, due process, and fundamental fairness."

Alternatively, the Commission may request the Administrative Law Judge to identify the issues and determine the appropriate scope and conduct of the hearing according to applicable law, due process and fundamental fairness.

Minn. R. 1400.7300, Rules of Evidence, provide, in part, as follows:

> "Subp. 2 Evidence part of record. All evidence to be considered in the case, including all records and documents, in the possession of the agency or a true and accurate photocopy, shall be offered and made a part of the record in the case. No other factual information or evidence shall be considered in the determination of the case."
>
> "Subp. 4 Official Notice of Facts. The Judge may take notice of judicially cognizable facts but shall do so on the record and with the opportunity for any party to contest the facts or notices."
>
> "Subp. 5 Burden of Proof. The party proposing that certain actions be taken must prove the facts at issue by a preponderance of the evidence, unless the substantive law provides a different burden or standard…."

In the Administrative Law Judge's First Prehearing Order dated December 8, 2010, the Court stated at number 10 as follows:

> "For any disputed issues of material fact, the Administrative Law Judge has determined that the Applicant would have the burden of proof."

At number 11 of the same Order, the Judge stated, in part:

> "The Administrative Law Judge concludes that "good cause" is a legal standard to be applied based on the factual record to be developed in this case."

At number 14 of the same Order, the Judge states, in part:

> "This contested case is not a due process challenge to the validity of the Ordinance."

The Judge did not clarify whether she referred to procedural or substantive due process or both.

In its Second Prehearing Order at number 5 dated January 4, 2011, the Court states, in part:

> "It does not appear from the prehearing submissions of the parties that there are any genuine issues of material fact at this time, <u>although there are open factual questions about the impact of applying the ordinance standards that should be developed at hearing.</u>" (emphasis added)

The Court goes on to set up the order of hearing for Applicant and Intervenors, provides that Applicant will submit direct testimony and Intervenors' rebuttal testimony, and sets out an order for discovery. Consequently, at the time this Order was issued, discovery was just commencing.

"Material fact" is defined as a determination of whether there is an absence of a factual issue as to a material fact <u>after</u> a careful scrutiny of the pleadings, depositions, admissions, and

any affidavits on file. A material fact that will preclude issuance of a summary judgment is one that will affect the outcome of the case. The material facts need to be both disclosed and undisputed. See Granell v. VFW Milton Barber Post No. 3871, 357 NW2d., 431 (Mn. Ct. App. 1984); Carl v. Pennington, 364 NW2d., 455 (Mn. Ct. App. 1985), 40 Minn. L. Rev. 608 (1956).

Consistent with the Judge's statement that there were open factual questions in dispute, at this time, the Prehearing Order Submittal of Belle Creek Township dated December 20, 2010, notes a number of facts in dispute, the Goodhue Wind Truth Prehearing Memorandum dated December 3, 2010, contains a section entitled "Material Issues of Fact to Address in this Docket.", the Prehearing Memorandum of AWA Goodhue, LLC, dated December 20, 2010, states that "Even if there are issues of material fact, AWA is prepared to demonstrate an abundance of reasons why there is good cause for the Commission not to follow the County standards. The Administrative Law Judge denied the Applicant's request to hear evidence or argument concerning a Motion for Summary Disposition focusing on the factual questions in dispute over the application of the Ordinance.

In the Findings of Fact, Conclusions and Recommendations of the Administrative Law Judge dated April 29, 2011, the first mention about burden of proof comes at Finding # 92. The Court states:

> "Some of the parties appear to take the position that they are not obligated to direct the Commission's attention to any evidence regarding health and safety to support the setback, as this would constitute an "impermissible shift of the burden of proof" onto them and away from the Applicant. The Administrative Law Judge advised these parties at the outset of this proceeding that this contested case is not a due process challenge to the ordinance. … Rather, this is a contested case proceeding for the purpose of developing the record as directed by the Commission, so that the Commission may determine for itself its obligation to consider and apply the ordinance under Minn. Stat. § 216F.081 and to determine, if appropriate, whether there is good cause not to apply any provision of the ordinance."

The County has reviewed Transcript Vol. 1, p.p. 7-24 and finds no statement of the Administrative Law Judge on the burden of proof prior to the commencement of the hearing. The County asserts that regulations contained its Wind Ordinance are a valid exercise of statutory authority. As such, the standards are presumptively valid and should be applied by the PUC unless the Applicant demonstrates by a preponderance of the evidence that there is "good cause" for the PUC not to apply them. Although the ALJ has acknowledged the PUC presumption that the Ordinance is valid and, therefore, not subject to a procedural due process challenge, she has referred in her findings to wording or definitions she feels are "ambiguous". This is essentially a substantive due process challenge to the ordinance and Goodhue County maintains that an entity challenging the substantive due process of a validly adopted regulation must show that the regulation is either arbitrary or capricious to have the regulation declared unconstitutional. Consequently, for the PUC to find good cause not to apply a section of the Goodhue County Ordinance, the proponent would have to show by a fair preponderance of the evidence that the regulation in question is arbitrary or capricious.

Good Cause

The Administrative Law Judge was tasked by the PUC to develop a record on "good cause" as that appears in Minn. Stat. § 216F.081, for the purpose of making recommendations on whether there is good cause for the Commission to not apply the standard to LWECS in Goodhue County.

In its First Prehearing Order dated December 8, 2010, the Administrative Law Judge stated at number 13, in part:

> "In particular, the Administrative Law Judge would like the parties to brief the issue whether Minn. Stat. § 216F.081 (2008) is intended to apply only to counties that have assumed the responsibility to process applications and issue permits for LWECS with a combined nameplate capacity of less than 25 MW, pursuant to Minn. Stat. § 216F.08."

A review of the November 2, 2010, PUC order indicates that this evaluation was not ordered. A review of the Applicant's Petition for Rehearing and Reconsideration of Decision Remanding these Matters to the Office of Administrative Hearings for Additional Hearing dated November 4, 2010, and the resulting PUC Notice and Order for Hearing dated November 20, 2010, does not task the Administrative Law Judge with the interpretation of Minn. Stat. § 216F.081.

Prior to commencing the formal ordinance drafting process, Goodhue County, through two of its legislators, solicited an opinion on the extent of its authority to regulate LWECS pursuant to Minn. Stat. § 216F.081. The opinion provided by PUC staff was summarized by legislators and presented to Goodhue County by them. The letter of Representatives Tim Kelly and Steve Drazkowski, dated March 15, 2010, reads as follows:

> "To whom it may concern:
>
> In respect to the Wind Energy Conversion project proposed in Goodhue County we would like to clarify our position.
>
> As Representatives for district 28A and 28B, we were asked by many constituents what the role of the county board was in regards to siting requirements of a wind turbine. Specifically, could the county board establish different standards than current guidelines set by the Public Utilities Commission?
>
> In order to answer that question, we both testified at a PUC hearing and asked for specific clarification from the board. The following statement is the response by the commission:
>
> 'The Commission and Commission staff have reviewed Statutes 216F.08 and 216F.081. After consultation with counsel, staff has come to the conclusion that these two Statutes are read independently.

> Statute 216F.08 indicates that counties may assume permitting authority for projects sized between 5 and 25 MW and Statute 216F.081 indicates that counties may adopt more stringent standards for LWECS which shall be considered by the Commission when permitting projects in the respective counties. Both Statute 216F.08 and 216F.081 read plainly; staff believes they should be interpreted as such.'
>
> The specific question was asked in regards to whether that meant the county would have to take over the permitting and regulation of the entire project. The answer to this question was also clear. The answer was no.
>
> Our intent on clarifying the role of the County Board was not an affirmation or opposition to wind energy. We believe that the proper place to have a discussion and get input on any wind project should first take place at the local level. This does not circumvent the PUC process and the Commission will have the ultimate control and oversight of all projects." Ex. 24A, p. 000976

Subsequently, a copy of the opinion was obtained and is quoted as follows:

> "The Commission and Commission staff have reviewed Statutes 216F.08 and 216F.081. After consultation with counsel, staff has come to the conclusion that these two Statutes are read independently.
>
> Statute 216F.08 indicates that counties may assume permitting authority for projects sized between 5 and 25 MW and Statute 216F.081 indicates that counties may adopt more stringent standards for LWECS which shall be considered by the Commission when permitting projects in the respective counties.
>
> Both Statute 216F.08 and 216F.081 read plainly; staff believes they should be interpreted as such."

On December 20, 2010, the Office of Energy Security replied to this request with "Comments" and the affidavits of employees Deborah Pile and Ingrid Bjorklund, dated December 20, 2010. In her affidavit, Ms. Pile states:

> "No. 15. OES EFP continued to advise that counties must first assume jurisdiction over LWECS up to 25 MW before adopting more stringent standards under section 216F.081 until we became aware that Commission staff had interpreted section 216F.081 during the course of processing the AWA Goodhue application to mean that any county, regardless of assuming jurisdiction for LWECS up to 25 MW in size, could adopt more stringent standards which the Commission would be required to consider under 216F.081."

At number 16 of her Affidavit Mr. Pile states that:

> "…the November 2, 2010, Order referring this matter to the Office of Administrative Hearings may (underlining added) imply a request for the ALJ to provide a recommendation regarding the interpretation of 216F.081."

A review of the Commission's Order of November 2, 2010, finds that there is no explicit order for the Administrative Law Judge to interpret the statute.

In regard to an "implicit" order, Minn. R. 7854.0900, subd. 5(D) states in part:

> "Alternatively, the Commission may request the Administrative Law Judge to identify the issues and determine the appropriate scope and conduct of the hearing according to applicable law, due process, and fundamental fairness."

The Affidavit of Ms. Ingrid E. Bjorklund reviewed the "legislative history" of Minn. Stat. § 216F.081 and reached conclusions at number 22 and number 23. At number 22 Ms. Bjorklund states that:

> "I conclude that committee members did not intend Minn. Stat. § 216F.081 to apply to counties that did not undertake permitting responsibility of LWECS up to 25 MW. It is my opinion that Committee members did not perceive a difference between combining or separating the provisions in Minn. Stat. §§ 216F.08 and .081."

On December 1, 2010, Ms. Bjorklund submitted Comments and Recommendations in Docket no. IP-6605/WS-06-1445 regarding Kenyon Wind, LLC. At page 5, "Goodhue County Ordinance" Ms. Bjorklund states:

> "Many commentators expressed that the standards under the Goodhue County ordinance should apply to this project.…The Goodhue County ordinance would be considered if Kenyon Wind applied for a new site permit because its existing permit expired or was revoked by the Commission. Alternatively, the Commission could choose to amend Kenyon Wind's existing permit to include all or parts of the ordinance."

Goodhue County and intervenors entered the entire record collected in its planning and ordinance development procedures to establish the factual basis on which county decisions were made. That record is cited throughout these findings as the basis for the ALJ's own conclusions and as the basis for exceptions by the intervenors.

FINDINGS OF FACT

I. Statutory Background.

1. Wind energy developments are governed by the Minnesota Wind Siting Act, Minnesota Statutes Chapter 216F. The chapter defines a large wind energy conversion system

(LWECS) as any combination of wind energy conversion systems with a combined nameplate capacity of 5 megawatts (5,000 kilowatts) or more. A small wind energy conversion system (SWECS) means any combination with combined nameplate capacity of less than 5 megawatts.[3] It is the policy of the state to site LWECS in an orderly manner compatible with environmental preservation, sustainable development, and the efficient use of resources.[4]

Exception to Number 1:

> LWEC site permits are subject to Minnesota Rules Chapter 7854, Public Utilities Commission Site Permit; Large Wind Energy System. LWECS up to 25 MW are also subject to Commissioner's Order "In The Matter of Establishment of General Permit Standards for the Siting of Wind Generation Projects Less Than 25 Megawatts, Order Establishing General Wind Permit Standards, Docket No. E,G-999/M-07-1102 (Jan. 11, 2008)."

2. No person may construct a LWECS without a site permit from the Public Utilities Commission.[5] A permit under Chapter 216F is the only site approval required for the location of an LWECS. The site permit supersedes and preempts all zoning, building, or land use rules, regulations, or ordinances adopted by regional, county, local, and special purpose governments.[6] Local governments may establish requirements for the siting and construction of SWECS.[7]

3. In 2007, chapter 216F was amended by the Next Generation Energy Act of 2007. The amendments provided in relevant part that a county board may assume responsibility for processing applications for permits for LWECS with a combined nameplate capacity of less than 25 megawatts, if the board takes such action by resolution and provides written notice to the Public Utilities Commission.[8] The legislature required the Commission to establish, by order, general permit standards (including property line setbacks) for LWECS under this section. The statute further provides that the order must consider existing and historic commission standards for wind permits issued by the commission. These general permit standards "shall apply to permits issued by counties and to permits issued by the commission for LWECS with a combined nameplate capacity of less than 25,000 kilowatts." The commission or a county may grant a variance from a general permit standard if the variance is found to be in the public interest.[9]

4. Included in the 2007 amendments was the following provision:

> A county may adopt by ordinance standards for LWECS that are more stringent than standards in commission rules or in the commission's permit standards. The commission, in considering a permit application for LWECS in a county that has

[3] Minn. Stat. § 216F.01, subds. 2 & 3.
[4] Minn. Stat. § 216F.03.
[5] Minn. Stat. § 216F.04.
[6] Minn. Stat. § 216F.07.
[7] Minn. Stat. §216F.02(c).
[8] Minn. Stat. §216F.08(a).
[9] Minn. Stat. §216F.08(c).

adopted more stringent standards, shall consider and apply those more stringent standards, unless the commission finds good cause not to apply the standards.[10]

5. In response to these amendments, the Commission opened a docket to establish general wind permit standards that would be applicable to permits issued by counties and to permits issued by the commission for LWECS with a combined nameplate capacity of less than 25 megawatts. After notice and a comment period, the Commission issued an order establishing general wind turbine permit setbacks and standards for LWECS facilities permitted by counties pursuant to Minn. Stat. § 216F.08. As stated in the Order, these standards and setbacks maintain most of the Commission's established LWECS permit standards and setbacks that had been in effect for the previous 12 years, with some minor changes.[11]

Exception to Number 5:

These rules apply only to LWECS with a combined nameplate capacity of less than 25 megawatts. No official standards have been adopted for LWECS 25 MW or larger. The OES/EFP develops recommendations for each permit individually. Staff at the OES/EFP relies on their knowledge of past permits and conversations with the applicant to develop permit requirements for each new project. Footnote No. 1 on Pg. 2 of Judge Sheehy's Second Prehearing Order acknowledges that:

"The recommended standards appear to be based (emphasis added) on the Commission's order establishing general wind permit standards, as modified by the Applicant's agreement in this case to increase the setback from non-participating dwellings. See *In the Matter of Establishment of General Permit Standards for the Siting of Wind Generation Projects Less than 25 Megawatts*, Order Establishing General Wind Permit Standards, Docket No. E,G-999/M-07-1102 (Jan. 11, 2008)."

The title of the Order limits its authority to "Projects Less than 25 Megawatts" while the language of the Order itself reiterates this limitation.

"**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

[10] Minn. Stat. §216F.081.

[11] In the Matter of Establishment of General Permit Standards for the Siting of Wind Generation Projects Less than 25 Megawatts, Docket No. E,G-999/M-07-1102, Order Establishing General Wind Permit Standards (Jan. 11, 2008) (General Wind Permit Standards Order). For ease of reference, a copy of this Order and its attached Ex. A was received in evidence as Ex. 21.

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."

Page 7 of *In the Matter of Establishment of General Permit Standards for the Siting of Wind Generation Projects Less than 25 Megawatts*, Order Establishing General Wind Permit Standards, Docket No. E,G-999/M-07-1102 (Jan. 11, 2008).

No citation is provided in this Order or in any of the OES permit documents associated with PUC Dockets in this matter, to broader general performance permit standards, rules or orders currently adopted by MNPUC and enforced by the OES EFP. No such minimum standards currently exist in binding policy to inform local governments, the public or the applicant what performance standards will be applied to evaluate, permit and regulate large wind energy conversion systems 25 MW or greater in size. The OES EFP staff did provide a chart summarizing their assessment of variations between the Goodhue County Wind Regulations and the requirements typically imposed as part of the PUC permitting process. These common permit requirements for LWECS 25 MW or larger are not part of a PUC Order, Rule, or Minnesota Statute. See also Minn. Stat. § 14.05 for requirements for rule making..

6. The Commission's *General Wind Permit Standards Order* contains setbacks and standards for LWECS that are permitted by counties under Minn. Stat. § 216F.08. Those standards are essentially the same as the permit standards the Commission had developed in other dockets and had previously applied to all LWECS, prior to the 2007 amendments.[12]

Exception to Number 6:

The record of the contested hearing does not contain a citation or recitation of previous permit requirements imposed by the PUC. Also see Bent Tree Wind Project, PUC Docket No. ET-6657/W5-08-573, for the proposition that permits are not precedent.

Existing rules apply only to LWECS with a combined nameplate capacity of less than 25 megawatts. No official standards have been adopted for LWECS 25 MW or larger. The OES/EFP develops recommendations for each permit individually. Staff at the OES/EFP relies on their knowledge of past permits and conversations

[12] Ex. 21 at 3 and Attachment A. See also Ex. 24A at 514 (commission permit standards developed in generic dockets and individual project dockets).

with the applicant to develop permit requirements for each new project. Footnote No. 1 on Pg. 2 of Judge Sheehy's Second Prehearing Order acknowledges that:

"The recommended standards appear to be based (emphasis added) on the Commission's order establishing general wind permit standards, as modified by the Applicant's agreement in this case to increase the setback from non-participating dwellings. See *In the Matter of Establishment of General Permit Standards for the Siting of Wind Generation Projects Less than 25 Megawatts*, Order Establishing General Wind Permit Standards, Docket No. E,G-999/M-07-1102 (Jan. 11, 2008)."

The title of the Order limits its authority to "Projects Less than 25 Megawatts" while the language of the Order itself reiterates this limitation.

"**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."

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No citation is provided in this Order or in any of the OES permit documents associated with PUC Dockets in this matter, to broader general performance permit standards, rules or orders currently adopted by MNPUC and enforced by the OES EFP. No such minimum standards currently exist in binding policy to inform local governments, the public or the applicant what performance standards will be applied to evaluate, permit and regulate large wind energy conversion systems 25 MW or greater in size. The OES EFP staff did provide a chart summarizing their assessment of variations between the Goodhue County Wind Regulations and the requirements typically imposed as part of the PUC permitting process. These common permit requirements for LWECS 25 MW or larger are

not part of a PUC Order, Rule, or Minnesota Statute. See also Minn. Stat. § 14.05 for requirements for rule making.

7. As of January 2010, six counties had assumed responsibility to permit wind projects: Lyon, Murray, Freeborn, Lincoln, Stearns, and Meeker counties.[13]

8. As of January 2010, there were more than 1,400 wind turbines in Minnesota with a nameplate capacity of more than 1,800 megawatts. Of those turbines, approximately 1,058 were permitted by the MPUC, and 361 were permitted by local governments.[14]

Exception to Number 8:

There were more than 1,400 wind turbines in Minnesota with a total nameplate capacity of more than 1,800 megawatts. See Ex. 24A at 503.

II. The Applicant.

9. The Applicant, AWA Goodhue, LLC, is the developer of a proposed 78 MW wind farm in Goodhue County. The project as proposed consists of 50 1.5- or 1.6-MW GE xle wind turbine generators, gravel access roads, an underground electrical collection system, two permanent meteorological towers, an operation and maintenance facility, two project substations, and step-up transformers at the base of each turbine. The expected cost to design and construct the project is $179 million.[15]

Exception to Number 9:

Judge Sheehy noted on March 16, 2010, that financial impacts were marginally relevant. Transcript Vol. 2, p. 157-158, line 19-3.

10. The Applicant owns National Wind, LLC, a development company headquartered in Minneapolis.[16] American Wind Alliance, LLC, owns the Applicant; Mesa Power Group owns American Wind Alliance; and Thomas Boone Pickens, Jr., owns Mesa Power Group. Upon commercial operation, the Applicant will be owned jointly by American Wind Alliance (99%) and Ventem Energy, LLC, a group of about 20 Minnesota investors (one percent).[17]

Exception to Number 10:

Mesa Power Group, which owns American Wind Alliance, is not a Minnesota Corporation (Transcript, Vol. 2, p. 68, l. 19-21).

[13] Ex. 24A at 510.
[14] Ex. 24A at 503, 505.
[15] Ex. 1, Ward Direct at 3-4; Ex. 2, Robertson Direct at 2.
[16] Ex. 3, Burdick Direct at 1.
[17] Ex. 1, Ward Direct at 4; Tr. 2:68-69 (Ward).

11. The project permit boundary includes 32,684 acres in Belle Creek, Minneola, Goodhue, Vasa, and Zumbrota Townships in Goodhue County.[18]

12. On October 15, 2009, the Applicant filed an application for a certificate of need with the Commission.[19]

13. On October 19, 2009, the Applicant filed an amended application for a site permit with the Commission.[20]

14. In October 2009, the Applicant entered into two Power Purchase Agreements (PPAs) with Xcel Energy representing purchases of the full expected output of the project.[21] On April 28, 2010, the Commission approved Xcel Energy's petitions for approval of these PPAs.[22]

15. On May 3, 2010, the Commission issued an order denying Goodhue Wind Truth's request for a contested case hearing in this docket, concluding that there were no material issues of fact that would require a contested case hearing. The Commission expanded the scope of the public hearings in the certificate of need docket, however, to include siting and permitting issues. The Commission also approved for distribution and comment a draft site permit.[23]

Exception to Number 15:

> On November 2, 2010, the PUC found that it could not satisfactorily resolve on the record before it all questions regarding the applicability of an ordinance adopted by the Goodhue County Board on October 5, 2010, and referred the matter to the Office of Administrative Hearings, Docket 6701/WS-08-1233 (Nov. 2, 2010). Please see number 39 p. 8 of the Findings of Fact, Conclusions and Recommendations wherein the Commission changed its position following the adoption of the Wind Regulations Amendments to Article 18 of the Goodhue County Zoning Ordinance.

16. Public hearings were held on July 21-22, 2010. The hearings were well attended, and a summary of public testimony was provided to the Commission in September 2010.[24]

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[18] Ex. 3, Burdick Direct at 2-3.
[19] *In the Matter of the Application of AWA Goodhue Wind, LLC, for a Certificate of Need for a 78 Megawatt Wind Project and Associated Facilities in Goodhue County*, Docket No. IP-6701/CN-09-1186 (Certificate of Need Docket).
[20] *In the Matter of the Application of AWA Goodhue Wind, LLC, for a Large Wind Energy Conversion System Site Permit for the 78 Megawatt Goodhue Wind Project in Goodhue County*, Docket No. IP-6701/WS-08-1233 (Site Permit Docket).
[21] Ex. 1, Ward Direct at 3.
[22] *In the Matter of Northern States Power Company's Request for Approval of Power Purchase Agreements with Goodhue Wind, LLC*, Docket Nos. E-002/M-09-1349, E-002/M-09-1350, Order Approving Power Purchase Agreements, Approving Contract Amendments, and Requiring Further Filings (Apr. 28, 2010) (copy included in Ex. 24A at 138-47).
[23] *Certificate of Need Docket and Site Permit Docket*, Order Approving Distribution of Draft Site Permit and Denying Contested Case (May 3, 2010).
[24] *Certificate of Need Docket and Site Permit Docket*, Summary of Public Testimony (Sept. 7, 2010).

Exception to Number 16:

> Public hearings were held on July 21-22, 2010, in Goodhue, Minnesota, by the Honorable Eric Lipman. (emphasis added)
>
> These hearings before the Honorable Eric Lipman consisted largely of individuals testifying against the proposed project.

17. The Applicant has negotiated easements, leases, and participation agreements with approximately 200 persons who own land in the project area. Through these agreements, approximately 12,000 acres of land are available to site wind turbines and provide setbacks of 1,500 feet from non-participating residences and a minimum of 1,000 feet for participants.[25]

Exception to Number 17:

> Testimony and documents vary on the number of individual persons or separate entities participating. Some property is held in family trusts and others by multiple owners of single parcels. Clearly, there are less than 200 individual participant ownership interests controlling the property in footprint. Some participants are absentee land owners. See Ryan Testimony, Transcript Vol. 3B, p. 103, lines 14-25, through p. 104, line 1:
> "Q You've indicated in your testimony that some of the individuals who signed participation agreements actually don't live on their property. Can you give us an example of that?
> A I know of two different people. One is my neighbor, they own several – 300 – I'd say roughly 300 acres. They do not preside on that property at all.
> Q Do you know of any other individuals that don't reside on the property?
> A There's another individual on the southeast corner of our township that I know does not reside at his acreage that he owns."
> See also the discussion by Mr. Burdick in Ex. 3 Burdick Cross at p. 42 lines 9-15 and through p. 44.
> "Q How many parcels? Owned by separate owners?"
> "A I don't have that number offhand. As you know, Mr. Betcher, title for any individual parcel is held sometimes very differently, even within the same family."…
> "Again, I don't have a number offhand, and it's sometimes difficult to distinguish. Sometimes a brother and brother own a parcel, sometimes a husband and wife own a parcel, sometimes a trust owns a parcel, and I don't know whether you would want me to consider all of them in the same family group or three separate groups."

18. At present, the Applicant proposes to site all the turbines in Belle Creek and Minneola Townships. These townships are not significantly different, in terms of housing

[25] Ex. 3, Burdick Direct at 2-3.

density, than townships that are hosting other wind turbine projects in Dodge and Mower Counties.[26]

Exception to Number 18:

> No evidence is cited in support of this assertion. Minn. R. 1400-7300 provides that no factual information shall be considered in the case which is not part of the record. Goodhue County is more densely populated than any area industrial wind turbines have previously been sited. While two to three more residences per square mile may be considered insignificant in an urban area, two to three more houses per square mile in Goodhue County's rural farm environment represents a population density two to three times more dense than the areas used for comparison in other counties.

19. The Applicant has invested approximately $7.5 million in acquisition and development costs for the project.[27]

Exception to Number 19:

> Judge Sheehy noted on March 16, 2010, that financial impacts were marginally relevant to the contested case hearing. Transcript Vol. 2 p. 157-158, lines 19-3.

20. The Applicant anticipates that the project will generate $768,000 per year to participating landowners, or about $20 million over the life of the Power Purchase Agreements negotiated with Xcel Energy.[28] In addition, the Applicant anticipates that local governments (the County and Townships) would receive $302,000 per year in energy production tax payments, or about $6 million over the life of the Power Purchase Agreements.[29]

Exception to Number 20:

> See Exception to Number 19.

21. On October 20, 2010, OES/EFP recommended approval of the site permit application with conditions. The proposed site permit was attached to its recommendation.[30]

III. Other Parties.

22. Goodhue County is located approximately one hour southeast of the metropolitan Twin Cities area. It is bordered generally by Dakota County on the north, Dodge and Olmsted

[26] Ex. 3, Burdick Direct at 20.
[27] Ex. 2, Robertson Direct at 2.
[28] Ex. 2, Robertson Direct at 9.
[29] Ex. 2, Robertson Direct at 9.
[30] *Site Permit Docket*, Comments and Recommendations of the Minnesota Office of Energy Security Energy Facility Permitting Staff (Oct. 13, 2010); Supplemental Comments and Recommendations (Oct. 20, 2010). These documents were re-filed as Attachments 2 and 3 to OES Comments filed on December 20, 2010.

Counties on the south, Rice County on the west, and Wabasha County and the Mississippi River on the east. It has approximately 46,000 residents.[31]

Exception to Number 22:

> Minn. R. 1400-7300 provides that no factual information shall be considered in the case which is not part of the record. No acknowledgment of the intent to take judicial notice of the Goodhue County website was made in the hearing.

23. The land within the project boundary is zoned under a variety of different agricultural zoning classifications.[32]

24. The Goodhue County Comprehensive Plan explicitly supports the development of "innovative industrial agricultural" land uses such as ethanol production and wind generation.[33]

Exception to Number 24:

> Michael Wozniak testified that the County "…defines commercial and wind energy conversion systems as over one megawatt and commercial wind turbines are restricted entirely from some of the zoned districts. And in other zoned districts, such as the agriculture districts, they are listed as conditional use, and that would apply, of course, to projects that are within the County's authority to permit. Transcript Vol. 3B, p. 81-82, lines 21-6.

25. The County Board passed a resolution supporting the project as a community-based energy development project.[34]

Exception to Number 25:

> Proponents and Intervenors were precluded from inquiring into the C-Bed Resolution of support by the Goodhue County Board as C-Bed was not part of the PUC charge to the ALJ. The county resolution applied to the previously constituted proposal by National Wind prior to the sale to Mesa Power and Mr. Pickens. See p. 3 at 1.1.2 of Goodhue Wind Project Amended Application for a Site Permit for a large Wind Energy Conversion System MPUC Docket No. IP6701/WS-08-1233.

26. The County negotiated a Development Agreement with the Applicant that addresses the Applicant's obligations to comply with the State Building Code, obtain building permits, repair any damage to roads caused by construction traffic, restore roads to preconstruction surface condition, repair any damage to underground drainage systems, and pay

[31] http://www.co.goodhue.mn.us/visitors/about_ghc.aspx.
[32] Tr. 1:180-81 (Burdick). See also Ex. 3, Burdick Direct at 3 & Attachment 3A.
[33] Ex. 24A at 881. See also Tr. 2:314-15 (Hanni).
[34] Ex. 24A at 143; Tr. 1:54.

all reasonable costs incurred by the County in connection with the project. The negotiations were completed and the County Board approved it on October 5, 2010, but the Development Agreement has not been executed.[35]

27. On October 5, 2010, Goodhue County adopted amendments to Article 18 of its zoning ordinance for wind projects.[36] The County did not assume responsibility to process applications or permit LWECS. In section 1, the ordinance provides:

> This ordinance is established to regulate the installation and operation of Wind Energy Conversion Systems (WECS) within Goodhue County that have a total nameplate capacity of 5 Megawatts or less (Small Wind Energy Conversion Systems – SWECS) and are not otherwise subject to siting and oversight by the State of Minnesota pursuant to Minnesota Statutes, Chapter 216F, Wind Energy Conversion Systems, as amended. For LWECS, the county does not assume regulatory responsibility or permit authority under MS 216F.08, but any standards more stringent than those of the MPUC are to be considered and applied to LWECS per MS 216F.081.[37]

Exception to Number 27:

> Michael Wozniak testified that the process of the County prior to the passage of the ordinance included consideration by the Goodhue County Planning Advisory Commission on October 5, 2010, its subcommittee and the Goodhue County Board. These meetings included extensive public testimony and comments. Transcript Vol. 3B, p.p. 9-15.

28. The ordinance has no standards that specifically regulate LWECS. The setback provisions for commercial WECS, which are defined as "a WECS of 1 megawatt to 5 megawatts in total nameplate generating capacity," include setbacks of 750 feet from participating dwellings and ten rotor-diameters (RD) from non-participating dwellings, unless an owner has agreed to a reduced setback (in no event less than 750 feet).[38] The ordinance also contains provisions requiring the application for a commercial WECS to include offers of two pre-construction stray voltage tests at all registered feedlots within the proposed project boundary and within one mile of the proposed project.[39]

Exception to Number 28:

> The ordinance standards for WECS and LWECS are equivalent even though the County did not assume the responsibility for permitting LWECS.

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[35] Ex. 1, Ward Direct at Attachment B; Ex. 3, Burdick Direct at 23.
[36] Ex. 24B.
[37] Ex. 24B, Art. 18, § 1.
[38] Ex. 24B, Art. 18, § 2, subd. 5; § 4, subd. 1.
[39] Ex. 24B, Art. 18, § 3, subd. 2 G; § 6, subds. 1-3.

29. The City of Goodhue, which has a population of approximately 925 people, and the City of Zumbrota intervened in this matter but did not participate in the contested case hearing. On August 12, 2009, the Goodhue City Council passed a resolution calling for a two-mile setback from the City of Goodhue "to prevent any Large Wind Energy Conversion System (LWECS) of being constructed."[40]

30. Belle Creek Township is an agricultural community of fewer than 450 people within Goodhue County.[41] The township board has held about one dozen meetings to discuss the project. Approximately 40-50 people have consistently attended these meetings to oppose the project.[42]

31. Goodhue Wind Truth is an informal association that is not legally organized and has no membership other than Marie and Bruce McNamara, who live in section 11 within the project area. The turbine site proposed to be closest to their address appears to be at least one-half mile away. They use the name Goodhue Wind Truth for purposes of providing information regarding this project and other wind projects generally. They have established a website, bought newspaper advertisements and billboards, printed flyers, and hosted meetings in the community regarding county and state permitting issues for wind development.[43]

32. The Coalition for Sensible Siting is organized as a non-profit corporation in Minnesota to provide facts and information on wind energy projects to the public. Steve Groth and Ann Buck are members of the Board of Directors. Steve Groth lives in Zumbrota, outside the project area. Ann Buck owns property in section 24 within the project area. The turbine site proposed to be closest to her property appears to be about three-quarters of a mile away. The Coalition for Sensible Siting has no members or shareholders.[44]

33. Goodhue Township and Zumbrota Township passed resolutions on March 9, 2010, providing that LWECS could be sited no closer than one-half mile from non-participating residences.[45] The resolutions were based on the "possible health and safety effects" associated with LWECS. Neither Goodhue Township nor Zumbrota Township petitioned to intervene in this matter, nor did they participate in the hearing.

IV. Issues for Hearing.

34. On October 21, 2010, approximately two weeks after the County adopted its amended wind ordinance, the Commission met to consider the site permit application. The

[40] Ex. 24A at 448. The same document appears at 451, 855, and 1194.
[41] Ex. 31, Ryan Direct at 2.
[42] Ex. 31, Ryan Direct at 4.
[43] Ex. 32, McNamara Direct at 2; Affidavit of Marie McNamara (Feb. 8, 2011), efiled in connection with Goodhue Wind Truth's Motion for Reconsideration (Feb. 11, 2011) (contains address); Ex. 3, Burdick Direct at Attachment B (contains turbine locations).
[44] Affidavit of Steve Groth (Feb. 8, 2011), efiled in connection with Goodhue Wind Truth's Motion for Reconsideration (Feb. 11, 2011) (contains property locations); Ex. 3, Burdick Direct at Attachment B (contains turbine locations).
[45] Ex. 24A at 935 (and 2503 and 5289) (Zumbrota Township); 1094-95 (Goodhue Township).

Commission concluded that it could not satisfactorily resolve, on the basis of the record before it, all questions regarding the applicability of the County's ordinance, including whether there was good cause for the Commission not to apply any ordinance standards that are more stringent than the standards currently applied to LWECS by the Commission.[46] The matter was referred to the Office of Administrative Hearings for a contested case proceeding to develop the record as follows:

- Development of a record on every standard in Article 18 of the Goodhue County Ordinances on Wind Energy Conversion Systems that is more stringent than what the Commission has heretofore applied to large wind energy conversion systems (LWECS), for the purpose of making recommendations regarding whether the standard should be adopted for LWECS in Goodhue County;

- Development of a record on the question of "good cause" as that term appears in Minn. Stat. § 216F.081, for the purpose of making recommendations on whether there is good cause for the Commission to not apply the standard to LWECS in Goodhue County; and

- Development of a record to determine whether there is sufficient evidence regarding health and safety to support two specific portions of Article 18: the 10-rotor diameter setback for nonparticipating residents, contained in Section 4, and the stray voltage requirements, contained in Section 6.[47]

Exception to Number 34:

The actual charge of the PUC to the Administrative Law Judge is worded as follows:

"1. The ALJ assigned to this matter is requested to develop a record on every standard in Article 18 that is more stringent than what the Commission has heretofore applied to LWECS and make recommendations regarding each such standard whether the Commission should adopt it for Large Wind Energy Conversion Systems in Goodhue County. The Commission has identified two such standards in this Order (Section 4 and Section 6) but is not by this Order restricting the ALJ from developing the record and making recommendations regarding additional standards in Article 18 that upon further examination meet the "more stringent" qualification.

2. The ALJ assigned to this matter is requested to allow the parties to develop a factual record on the question of "good cause" as that term appears in Minn. Stat. § 216F.081 and to provide recommendations on whether, with respect

[46] *Site Permit Docket*, Notice and Order for Hearing at 2 (Nov. 2, 2010).
Exception to Footnote Number 46: Site Permit Docket, Notice and Order for Hearing at 3 (Nov. 2, 2010)
[47] *Site Permit Docket*, Notice and Order for Hearing at 4 (Nov. 2, 2010).

to each standard in Article 18 identified in the course of her review as "more stringent" than what the Commission has heretofore applied to LWECS, there is "good cause" for the Commission to not apply the standard to siting LWECS in Goodhue County.

3. As the ALJ addresses the issues identified in the previous two sections, the ALJ is requested to include (but not limited to, by this Order) whether there is sufficient evidence regarding health and safety to support a 10 rotor diameter setback for non-participating residents and the stray voltage requirements.

Footnote number 46 is incorrect. It should read Site Permit Docket, Notice and Order for Hearing at 3 (November 2, 2010).

35. On November 5, 2010, the Commission deferred consideration of the application for a certificate of need, pending completion of the contested case in this docket.[48]

V. Good Cause.

36. The County, Goodhue Wind Truth, and the Coalition for Sensible Siting have argued in part that there is no conflict between the County's ordinance requirements and the Commission's general permitting standards because the Commission has *no* permitting standards applicable to LWECS of 25 megawatts or more. They rely on the *General Wind Permit Standards Order* for the proposition that the Commission has only established permitting conditions for projects under 25 megawatts.

Exception to Number 36:

Specifically, Goodhue County stated in its Intervenor Brief dated April 1, 2011:
"These common permit requirements for LWECS 25 MW or larger are not part of PUC Order, Rules or Minnesota Statute."

Specifically, Goodhue Wind Truth stated in its Intervenor Brief dated April 1, 2011:
"For each of the different sections of the County Ordinance identified in the Second Prehearing Order, there are no state standards applicable to LWECS of 25 MW or more."

Specifically, the Coalition for Sensible Siting stated in its Intervenor Brief of April 1, 2011:
"The PUC standard at issue refers to the "General Permit Standards for the Stiing of Wind Generation Projects Less than 25 Megawatts…By its very name – "Less than 25 Megawatts" as a matter of definition, would not apply to the AWA Project."

[48] *Certificate of Need Docket*, Order Deferring consideration of Application for Certificate of Need (Nov. 5, 2010).

37. This argument fails to consider the purpose of the general permit standards docket. The Commission had existing permit standards that were applicable to all site permit applications for LWECS. The 2007 legislation required the Commission to adopt standards for use by counties that had elected, under Minn. Stat. § 216F.08, to assume responsibility for processing applications for permits for LWECS with a combined nameplate capacity of less than 25 megawatts. The fact that the Commission complied with the legislation and provided this guidance to counties in the *General Wind Permit Standards Order* does not mean that the commission's existing standards, established in other dockets, became inapplicable to LWECS of 25 megawatts or more.

Exception to Number 37:

Minn. Stat. 216F.05 Rules provides that the Commission should adopt rules governing the consideration of an application for a site permit for an LWECS. M.S. 216F.01 defines an LWECS as:
"…any combination of WECS with a combined nameplate capacity of 5,000 kilowatts or more."

"Minn. Stat. 216F.05 Rules, states:
The commission shall adopt rules governing the consideration of an application for a site permit for an LWECS that address the following (emphasis added):

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."

To date, the PUC has not adopted those rules.

Minn. Stat. § 216F.08 relates to the assumption of permit authority by counties for LWECS for a combined nameplate capacity of less than 25,000 kilowatts. It reads, in relevant part, as follows:

"Minn. Stat. § 216F.08 (c)
The commission shall, by order, establish general permit standards, including appropriate property line setbacks, governing site permits for LWECS under this section. The order must consider existing and historic commission standards for wind permits issued by the commission. The general permit standards shall apply to permits issued by counties and to permits issued by the commission for LWECS with a combined nameplate capacity of less than 25,000 kilowatts. The commission or a county may grant a variance from a general permit standard if the variance is found to be in the public interest."

The Order establishing General Wind Permit Standards dated January 11, 2008, Docket no. E,G-999/M-07-1102, states specifically at number 1, that it applies to: "The general permit standards shall apply to large wind energy conversion systems 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 kilowatts."

The Administrative Law Judge appears to state that there is a purpose for the general permit standards docket. This position would presumably be that if one wished to apply for a permit, a review of each docket in which a permit was issued should be reviewed on a piece meal basis. The Legislature required that rules be adopted. Minn. Stat. § 14.05 provides for the authority to adopt original rules. Procedural requirements are set out in Chapter 14. In the event that a rule is not property adopted, Minn. R. 1400-2100 provides for a standard of review. A rule must be disapproved by a Judge if it is not adopted in compliance with Minnesota Statutes Chapter 14, or other law or rule.

The Order applies only to LWECS with a combined nameplate capacity of less than 25 megawatts. No official standards have been adopted for LWECS 25 MW or larger. The OES/EFP develops recommendations for each permit individually. Staff at the OES/EFP relies on their knowledge of past permits and conversations with the applicant to develop permit requirements for each new project. Footnote No. 1 on Pg. 2 of the Second Prehearing Order acknowledges that:

"The recommended standards appear to be based (emphasis added) on the Commission's order establishing general wind permit standards, as modified by the Applicant's agreement in this case to increase the setback from non-participating dwellings. See *In the Matter of Establishment of General Permit Standards for the Siting of Wind Generation Projects Less than 25 Megawatts*, Order Establishing General Wind Permit Standards, Docket No. E,G-999/M-07-1102 (Jan. 11, 2008)."

The title of the Order limits its authority to "Projects Less than 25 Megawatts" while the language of the Order itself reiterates this limitation.

"**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."

Page 7 of *In the Matter of Establishment of General Permit Standards for the Siting of Wind Generation Projects Less than 25 Megawatts,* Order Establishing General Wind Permit Standards, Docket No. E,G-999/M-07-1102 (Jan. 11, 2008).

No citation is provided in this Order or in any of the OES permit documents associated with PUC Dockets in this matter, to broader general performance permit standards, rules or orders currently adopted by MNPUC and enforced by the OES EFP. No such minimum standards currently exist in binding policy to inform local governments, the public or the applicant what performance standards will be applied to evaluate, permit and regulate large wind energy conversion systems 25 MW or greater in size. The OES EFP staff did provide a chart summarizing their assessment of variations between the Goodhue County Wind Regulations and the requirements typically imposed as part of the PUC permitting process. These common permit requirements for LWECS 25 MW or larger are not part of a PUC Order, Rule, or Minnesota Statute.

The record does not contain a factual citation or recitation of previous permit requirements imposed by the PUC. Thus, it cannot be considered pursuant to Minn. R. 1400-7300, Subp. 4.

38. In addition, the County, Goodhue Wind Truth, the Coalition for Sensible Siting, and Belle Creek Township contend that the statutory provision giving counties the authority to adopt more stringent standards "stands on its own," so to speak, and provides unlimited authority for any county to adopt standards for LWECS that the Commission must, in turn, apply to projects located in the county unless there is good cause not to do so.

Exception to Number 38:

Minn. Stat. § 216F.081 is an individual statute in the Wind Energy Conversion Systems Chapter. Minn. Stat. § 216F.08 is an individual statute on assumption of permit authority by counties. Goodhue County contends that each provision of statute stands on its own. The Statute found at M.S. 216F.081 states not that the Commission "must" apply the ordinance, but shall consider and apply (emphasis added) those more stringent standards, unless the Commission finds good cause not to apply the standards.

Patrick Hynes, Esq., in his Post Hearing Memorandum of Intervenor Belle Creek Township dated April 1, 2011, argues that the statute is unambiguous and the Court may not consider legislative intent. The County agrees with Mr. Hynes' analysis. See number 39 below.

In this case, the statutory framework for regulation of all Wind Energy Conversion Systems (WECS) in M.S. 216F.01-09 also decisively supports the position of Goodhue County and PUC staff, not OES staff, (as described by Counsel for the OES EFP). A county is specifically delegated authority by Minn. Stat. 216F.02 to adopt regulations for all SWECS and may adopt regulations for LWECS, including those for which the PUC issues permits. The plain language of M.S. 216F.081 states:

"Minn. Stat. 216F.081 APPLICATION OF COUNTY STANDARDS. A county may adopt by ordinance standards for LWECS that are more stringent than standards in commission rules or in the commission's permit standards. The commission, in considering a permit application for LWECS in a county that has adopted more stringent standards, shall consider and apply those more stringent standards, unless the commission finds good cause not to apply the standards." [emphasis added]

No distinction is made in this subdivision of the statute between LWECS from 5 MW to 25 MW and those LWECS 25 MW and larger that the PUC exclusively permits. Since a county may assume exclusive permitting authority with no PUC permit to be issued at all for LWECS up to 25 MW, concurrent regulation by county ordinance standards included in a PUC issued permit will only exist where (such as in our case) a county does not assume direct permitting authority.

39. Statutory construction is a question of law. When a statute does not expressly define a term, but the term is defined in a related statute, the statutes are *in pari materia* and should be construed together.[49] In addition, every law shall be construed, if possible, to give effect to all its provisions.[50]

[49] *In the Matter of the Commission's Investigation of Issues Governed by Minnesota Statutes Section 216A.036*, 724 N.W.2d 743, 746 (Minn. App. 2006). See also *Minneapolis Police Officers Federation v. City of Minneapolis*, 481 N.W.2d 372, 374 (Minn. App. 1992) (statutes relating to the same subject matter must be construed as consistent with each other).

[50] Minn. Stat. § 645.16.

Exception to Number 39:

> "Statutory construction is a matter of law. Brookfield Trade Ctr, Inc. v. County of Ramsey, 584 NW2d. 390, 393 (Minn. 1998). If the language of the statute is unambiguous, we apply its plain meaning. Minn. Stat. § 645.16 (2004)."
>
> In Re Issues Governed by Minnesota Statutes Section 216A.036, 724 NW2d. 743, 747 (Minn. App. 2006):
>
> "The canons of statutory construction prohibits this court from adding words to a statute to 'supply that which the legislature purposefully omits or inadvertently overlooks.'"
>
> The Minnesota Supreme Court stated:
>
> "When the words of a statute are clear and free of ambiguity, we have no right to construe or interpret the statute's language. Our duty in such a case is to give effect to the statute's plain meaning." Tuma v. Commissioner of Economic Security, 386 NW2d. 702, 706 (Minn. 1986).
>
> As Mr. Hynes states in his Post Hearing Memorandum of Intervenor Belle Creek Township, Minn. Stat. § 216F.081:
>
> "…simply states that "a county" may adopt standards. It does not state that a designated county may adopt standards. It does not state that particular counties may adopt standards. It does not state, as suggested by AWA, that "only counties that have assumed responsibility to permit LWECS up to 25 MW under Minn. Stat. § 216F.08" may adopt standards. The statute does not modify the word "county" in any way. It simply uses the term county. There is no ambiguity, and, therefore, the Court cannot engage in any further analysis."

40. Although Minn. Stat. § 216F.02(c) restricts local governments to the establishment of requirements for the siting and construction of SWECS, the amendment in Minn. Stat. § 216F.081 provides that a county "may" adopt ordinance standards for LWECS that are more stringent than those applied by the Commission. Minn. Stat. § 216F.081 does not indicate how these two apparently conflicting provisions are to be reconciled. This absence, however, does not render the statute ambiguous.

Exception to Number 40:

> Minn. Stat. § 216F.02(c) contains no restriction (emphasis asdded) on local governments; rather it does not preclude (emphasis added) a local government from establishing requirements for the siting and construction of SWECS. SWECS is defined by Minn. Stat. § 216F.081, Subd. 3 as less than 5,000 kilowatts. Counties are allowed by Minn. Stat. § 216F.08 to permit up to 25,000

kilowatts. There is no reference to § 216F.08 in § 216F.081 in Minn. Stat. § 216F.02(c). The statute stands alone.

41. It is clear from a reading of the entire statute that a county generally has authority to regulate SWECS; a county may also assume the responsibility to issue permits for LWECS of less than 25 megawatts, pursuant to Minn. Stat. § 216F.08; when it does so, the county "shall" apply the commission's general permit standards; it "may" grant a variance from a permit standard if the variance is in the public interest; and it "may" adopt by ordinance more stringent standards than those established by the commission. When those events have occurred, it makes sense that the Commission, when issuing site permits for projects of 25 megawatts or larger in that county, would be required to consider and apply any more stringent ordinance standards, so that all LWECS sited within a given county (regardless of whether they are under or over 25 megawatts and regardless of whether the county or the PUC issues the permit) are required to meet similar standards. In all other circumstances, a site permit for an LWECS issued by the Commission "supersedes and preempts all zoning, building, or land use rules, regulations, or ordinances adopted by regional, county, local, and special purpose governments."[51] This reading of the statute gives effect to all of its provisions and construes them consistently with each other. The ALJ has concluded that Chapter 216F unambiguously requires this interpretation.

Exception to Number 41:

The Administrative Law Judge was tasked by the PUC to develop a record on "good cause" as that appears in Minn. Stat. § 216F.081, for the purpose of making recommendations on whether there is good cause for the Commission to not apply the standard to LWECS in Goodhue County.

In its First Prehearing Order dated December 8, 2010, the Administrative Law Judge stated at number 13, in part:

"In particular, the Administrative Law Judge would like the parties to brief the issue whether Minn. Stat. § 216F.081 (2008) is intended to apply only to counties that have assumed the responsibility to process applications and issue permits for LWECS with a combined nameplate capacity of less than 25 MW, pursuant to Minn. Stat. § 216F.08."

On December 20, 2010, the Office of Energy Security replied to this request with "Comments" and the affidavits of employees Deborah Pile and Ingrid Bjorklund, dated December 20, 2010. In her affidavit, Ms. Pile states:

"No. 15. OES EFP continued to advise that counties must first assume jurisdiction over LWECS up to 25 MW before adopting more stringent standards under section 216F.081 until we became aware that Commission staff had interpreted section 216F.081 during the course of processing the AWA Goodhue application to mean that any county, regardless of assuming jurisdiction for

[51] Minn. Stat. § 216F.07.

LWECS up to 25 MW in size, could adopt more stringent standards which the Commission would be required to consider under 216F.081."

At number 16 of her Affidavit Mr. Pile states that:

"…the November 2, 2010, Order referring this matter to the Office of Administrative Hearings may (underlining added) imply a request for the ALJ to provide a recommendation regarding the interpretation of 216F.081."

A review of the Commission's Order of November 2, 2010, finds that there is no explicit order for the Administrative Law Judge to interpret the statute.

In regard to an "implicit" order, Minn. R. 7854.0900, subd. 5(D) states in part:

"Alternatively, the Commission may request the Administrative Law Judge to identify the issues and determine the appropriate scope and conduct of the hearing according to applicable law, due process, and fundamental fairness."

A review of the November 2, 2010, PUC order indicates that this was not ordered. A review of the Applicant's Petition for Rehearing and Reconsideration of Decision Remanding these Matters to the Office of Administrative Hearings for Additional Hearing dated November 4, 2010, and the resulting PUC Notice and Order for Hearing dated November 20, 2010, does not task the Administrative Law Judge with the interpretation of Minn. Stat. § 216F.081.

The reasoning herein is incorrect. There will be no uniformity in LWECS regulations unless all counties and the PUC follow the same standards. Those statewide standards must first be adopted by the PUC to apply to all LWECS.

The County reiterates that rules for LWECS have not been adopted pursuant to Minn. Stat. § 216F.05.

"Minn. Stat. 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: (emphasis added)

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."

42. The position that any county may regulate LWECS, regardless of size, and that the commission must apply those standards unless there is good cause not to do so, is an interpretation of Minn. Stat. § 216F.081 that conflicts expressly with other provisions of the Wind Siting Act. This interpretation reads both the limitation provided by 216F.08 (assumption of permitting responsibility for projects under 25 megawatts) and the pre-emption language of 216F.07 out of the Act. It cannot be the case that local regulation is completely pre-empted by a site permit issued by the Commission, and that the Commission is simultaneously obligated to consider and to apply the local regulation absent good cause. Moreover, this interpretation makes no practical sense. No county would go to the expense of assuming the permitting responsibilities for LWECS of less than 25 megawatts, if it could avoid those responsibilities and achieve virtually the same end by passing an ordinance purporting to apply more stringent standards to LWECS of all sizes, which the commission would be obligated to consider and apply.

Exception to Number 42:

See Exception to Number 41.

43. Because Chapter 216F is not ambiguous, it is not necessary to consider the evidence of legislative history provided by the OES.

Exception to Number 43:

Goodhue County's Ordinance does not directly regulate large WECS in Goodhue County. However, pursuant to M.S. 216F.081, the existence of Article 18 of the Goodhue County Zoning Ordinance as contained in Exhibit 24B, requires the MNPUC to apply each of the County's more stringent standards to large WECS sited in the County unless the PUC finds good cause not to apply a specific standard. The "good cause" standard is statutorily incorporated into the permit requirements to be applied by the MNPUC pursuant to M.S. 216F.081. The extent of county authority is made plain by the wording of M.S. 216F.081. This statute embodies a strong, affirmative policy enactment, pursuant to M.S. 216F.02, put in place to support counties in their broad responsibilities to protect citizens' legitimate interest in health, safety, and public welfare from industrial development. Each standard in the Ordinance stands alone subject to the good cause test and is, therefore, severable for purposes of evaluation and subsequent incorporation into the PUC permit. Pursuant to an application for a permit under the jurisdiction of the PUC, including an LWECS permit for a project of 25 MW

or greater capacity (as determined pursuant to M.S. 216F.011(b)) the applicant bears the responsibility for providing all necessary information which the PUC needs to evaluate a permit application. See Minn. R. 1400.7300.

The OES EFP has historically disagreed with the above interpretation of relevant statutes. One staff supervisor of the OES states in her affidavit which is Attachment 4 of the Office of Energy Security Comments dated December 20, 2010, filed herein, at pg. 4 of the affidavit, paragraphs 16-18 as follows:

"16. The Commission speaks through its orders. To date, the OES EFP is unaware that the Commission has considered legal arguments or issued a formal order interpreting section 216F.081. However, the November 2, 2010, order referring this matter to the Office of Administrative Hearings may imply a request for the ALJ to provide a recommendation regarding the interpretation of section 216F.081. [emphasis added]

17. The OES EFP believes that Assistant Commissioner Mike Bull clearly stated in response to questioning by a senate committee member that his interpretation of section 216F.081 was that the application of county standards would apply to those counties who assumed permitting authority for LWECS up to 25 MW. A quorum of the members of the Senate Energy, Utilities, Technology and Communications Committee were present and heard Mr. Bull's response, and the legislation being considered at that time included the two separated sections, 216F.08 and 216F.081.

18. My understanding of Minnesota law is that legislative history and intent is only considered if the interpreting authority finds a statute to be capable of more than one reasonable interpretation, and that the plain language of the statute otherwise will control. (emphasis added) The OES EFP staff provides the information contained in this affidavit and the affidavit of Ingrid E. Bjorklund to assist the Administrative Law Judge in interpreting sections 216F.08 and 216F.081, should the ALJ find that the statutes are capable of more than one reasonable interpretation such that they should be read together, with consideration of legislative intent." [emphasis added]

A second staff member of the OES also notes in her affidavit which is Attachment 5 of the OES Comments dated December 20, 2010, at pg. 4, paragraph 18:

"18. There does not appear to be any explanation why the A-2 amendment separated the county delegation (now under the heading "Permit Authority; Assumption by Counties") and the application of county standards language into two sections (216F.08 and 216F.081). The provisions appear to have been separated without any public discussion.

> Mr. Bull's statement, and a statement by Senator Prettner Solon, as discussed below, appear to be the only public record on the matter. From the time the committee adopted the A-2 amendment, the provisions remained separated."

This staff member, who is also a licensed attorney, goes on to make several observations and provide some specific documentation from legislative proceedings which to her established that the legislature mistakenly adopted the present statutory language which decoupled the authority for counties to adopt more stringent wind regulation than the PUC permit standards from the counties' responsibility to issue permits. By this argument, staff clearly acknowledges that the language of the statute as enacted allows counties to adopt more stringent wind standards than the PUC and to do so without adopting permitting responsibility. M.S. 216F.08 and 216F.081 were always separate in the proposed legislation. With their background in development of earlier versions of the statute, it is understandable that OES EFP staff have heretofore interpreted the statute contrary to its final plain language. Counsel for the OES EFP admits as much in her comments on pg. 3 and 4 of the Office of Energy Security Comments, dated December 20, 2010, when she says:

"Although the Commission appears to have interpreted section 2116F.081 [sic] to mean that the Commission is required to consider Goodhue County's more stringent standards, the OES EFP relies on its factual background to conclude that section 216F.081 may be capable of more than one reasonable meaning…"

and at pg. 4, Section III:

"After OES EFP staff became aware that Commission staff did not interpret the statute in the same manner, OES EFP ceased providing its previous advice in response to such inquiries."

The Affidavit of Ms. Ingrid E. Bjorklund reviewed the "legislative history" of Minn. Stat. § 216F.081 and reached conclusions at number 22 and number 23. At number 22 Ms. Bjorklund states that:

"I conclude that committee members did not intend Minn. Stat. § 216F.081 to apply to counties that did not undertake permitting responsibility of LWECS up to 25 MW. It is my opinion that Committee members did not perceive a difference between combining or separating the provisions in Minn. Stat. §§ 216F.08 and .081."

On December 1, 2010, Ms. Bjorklund submitted Comments and Recommendations in Docket no. IP-6605/WS-06-1445 regarding Kenyon Wind, LLC. At page 5, "Goodhue County Ordinance" Ms. Bjorklund states:

"Many commentators expressed that the standards under the Goodhue County ordinance should apply to this project.…The Goodhue County ordinance would be considered if Kenyon Wind applied for a new site permit because its existing permit expired or was revoked by the Commission. Alternatively, the Commission could choose to amend Kenyon Wind's existing permit to include all or parts of the ordinance."

In this case, the statutory framework for regulation of all Wind Energy Conversion Systems (WECS) in M.S. 216F.01-09 also decisively supports the position of Goodhue County and PUC staff, not OES staff, (as described by Counsel for the OES EFP). A county is specifically delegated authority by Minn. Stat. 216F.02 to adopt regulations for all SWECS and may adopt regulations for LWECS, including those for which the PUC issues permits. The plain language of M.S. 216F.081 states:

"Minn. Stat. 216F.081 APPLICATION OF COUNTY STANDARDS. A county may adopt by ordinance standards for LWECS that are more stringent than standards in commission rules or in the commission's permit standards. The commission, in considering a permit application for LWECS in a county that has adopted more stringent standards, shall consider and apply those more stringent standards, unless the commission finds good cause not to apply the standards." [emphasis added]

No distinction is made in this subdivision of the statute between LWECS from 5 MW to 25 MW and those LWECS 25 MW and larger that the PUC exclusively permits. Since a county may assume exclusive permitting authority with no PUC permit to be issued at all for LWECS up to 25 MW, concurrent regulation by county ordinance standards included in a PUC issued permit will only exist where (such as in our case) a county does not assume direct permitting authority.

44. If the statute were considered to be ambiguous, the Commission could consider the contemporaneous legislative history in determining the intention of the legislature.[52] The legislative history supports the interpretation that the legislature intended that the Commission would be obligated to consider and apply more stringent county standards only if those counties assumed the responsibility to process applications and issue permits for LWECS of less than 25 megawatts.[53]

Exception to Number 44:

See Exceptions to Numbers 41 – 43.

[52] Minn. Stat. § 645.16.
[53] OES Comments (Dec. 20, 2010), Attachments 4 and 5 (Affidavits of D. Pile and I. Bjorklund).

45. Because Goodhue County has not assumed the responsibility to process applications and issue permits for LWECS of less than 25 megawatts, the commission is not obligated to consider or apply the more stringent standards established by the county ordinance.

Exception to Number 45:

Goodhue County's Ordinance does not directly regulate large WECS in Goodhue County. However, pursuant to M.S. 216F.081, the existence of Article 18 of the Goodhue County Zoning Ordinance as contained in Exhibit 24B, requires the MNPUC to apply each of the County's more stringent standards to large WECS sited in the County unless the PUC finds good cause not to apply a specific standard. The "good cause" standard is statutorily incorporated into the permit requirements to be applied by the MNPUC pursuant to M.S. 216F.081. The extent of county authority is made plain by the wording of M.S. 216F.081. This statute embodies a strong, affirmative policy enactment, pursuant to M.S. 216F.02, put in place to support counties in their broad responsibilities to protect citizens' legitimate interest in health, safety, and public welfare from industrial development. Each standard in the Ordinance stands alone subject to the good cause test and is, therefore, severable for purposes of evaluation and subsequent incorporation into the PUC permit. Pursuant to an application for a permit under the jurisdiction of the PUC, including an LWECS permit for a project of 25 MW or greater capacity (as determined pursuant to M.S. 216F.011(b)) the applicant bears the responsibility for providing all necessary information which the PUC needs to evaluate a permit application. See Minn. R. 1400.7300.

See Number 41-43 above for a detailed analysis.

46. If the Commission were to conclude nonetheless that it was obligated to consider and apply the ordinance standards, unless there was good cause not to do so, it would have to determine the meaning of "good cause."

Exception to Number 46:

The reasoning herein is incorrect. The ordinance was necessary, practicable, and is not contrary to the public interest in Goodhue County. There will be no uniformity in LWECS regulations unless all counties and the PUC follow the same standards. Those statewide standards must first be adopted by the PUC to apply to all LWECS.

"Minn. Stat. 216F.05 Rules, states:
The commission shall adopt rules governing the consideration of an application for a site permit for an LWECS that address the following: (emphasis added)

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."

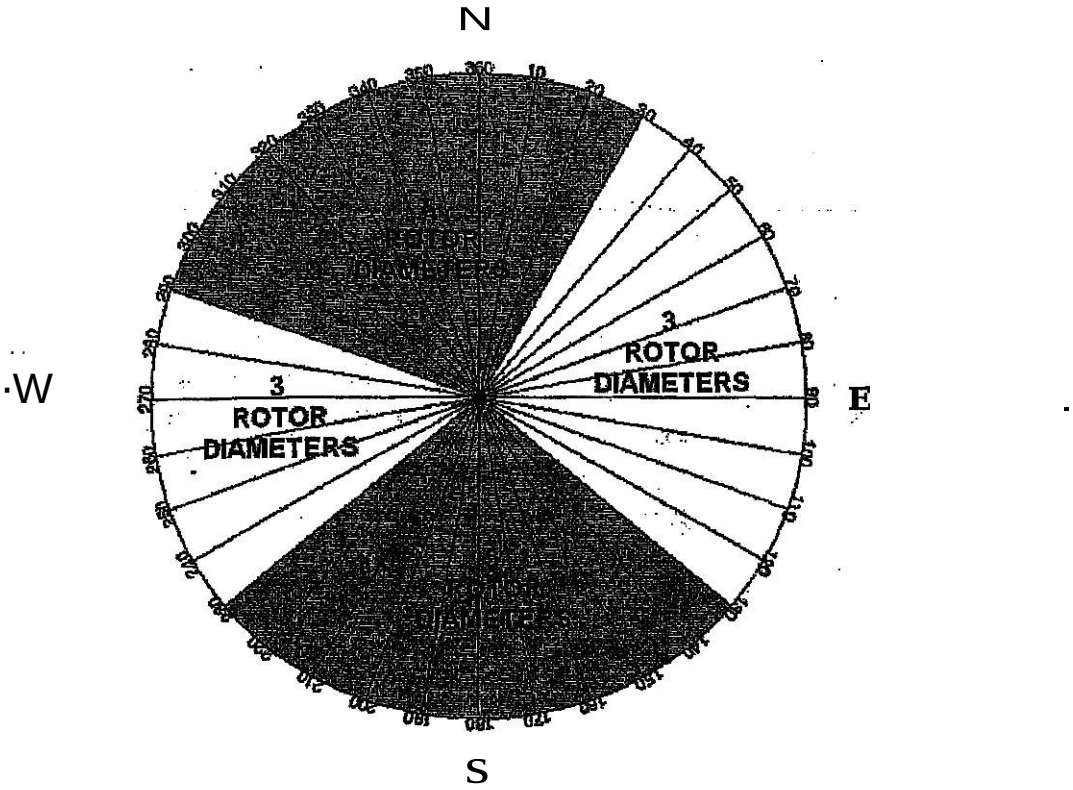
47. The phrase is not defined in the statute, but the common legal meaning of "good cause" is a legally sufficient reason.[54] A conclusion as to whether there is or is not good cause is a mixed question of fact (what the record shows) and law (whether the showing is sufficient).[55] The Commission applied a similar good cause standard in Minn. Stat. § 216B.243, subd. 5, in deciding to extend the 12-month time period for determining whether to issue a certificate of need in this case.

VI. Setbacks from Property Lines.

48. The County's ordinance in section 4, subdivision 1, provides for a property line setback for commercial WECS of "3 RD Non-prevailing and 5 RD Prevailing." It further provides that these setbacks shall be measured horizontally from the tower base. Prevailing wind is defined as the azimuth between 290 degrees to 30 degrees and between 130 degrees and 230 degrees. Non-prevailing wind is defined as the azimuth between 30 degrees and 130 degrees and between 230 degrees and 290 degrees.[56]

49. The County's witnesses did not recall any discussion of the definition of prevailing wind in the meetings held in connection with adopting the ordinance.[57] The definition of prevailing wind and non-prevailing wind in the County ordinance was taken from a similar ordinance provision adopted in Nicollet County.[58] The Nicollet County ordinance contains the following depiction of the manner in which prevailing and non-prevailing winds are defined:[59]

[54] Black's Law Dictionary (9th ed. 2009).
[55] *See Averbeck v. State*, 791 N.W.2d 559, 561 (Minn. App. 2010).
[56] Ex. 24B, Art. 18, § 4, subd. 1.
[57] Tr. 2:313-14 (Hanni); Tr. 3B:17 (Wozniak)
[58] Tr. 3B:12 (Wozniak); Nicollet County Wind Energy Conversion Systems Ordinance § 801.1 (adopted Aug. 11, 2009).
[59] Nicollet County Wind Energy Conversion Systems Ordinance, Appendix A.



50. The Commission's general wind permit standards do not reference setbacks from property lines, but provide instead that wind turbine towers shall not be placed less than 5 RD from all boundaries of a developer's site control area (including wind and land rights) on the predominant wind axis, which is typically north-south; and 3 RD on the secondary wind axis (typically east-west). This setback applies to all parcels for which the permittee does not control land and wind rights, including all public lands.[60] This standard is intended to protect the wind access rights of non-participating property owners and to minimize the effects of wind turbine-induced turbulence downwind.[61]

51. The County ordinance defines two 100° arcs for the prevailing wind direction, whereas the Commission's general wind permit standards allow an applicant to identify the predominant wind axis based on actual wind data obtained on the project site.[62]

[60] Ex. 21, Attachment A at 8.
[61] OES Comments (Dec. 20, 2010), Attachment 3 at 3.
[62] Ex. 3, Burdick Direct at 7.

52. The Applicant used wind data measured at meteorological towers built on the site to determine that the wind blows most often in the project area from the West/Northwest along a directional line of 300 degrees.[63]

53. Because the County ordinance defines prevailing wind direction in two 100° arcs, the 5 RD setback in the ordinance would apply to more than half of the compass rose. The application of this setback would preclude placement of 35 of the 50 turbines sited in the project area.[64]

54. To the extent that the ordinance is intended to protect the wind access rights of non-participating property owners, the manner in which prevailing wind is defined in the ordinance is both overly broad and less accurate than the definition used by the Commission. The ordinance uses a broadly defined proxy measurement rather than actual data to define prevailing wind direction, and it functions to greatly reduce the amount of land available for siting turbines. There is no evidence in the record to suggest that a setback of this magnitude is necessary to protect wind access rights of non-participating property owners.

Exception to Number 54:

> Re-Cross Ronald Peterson, Transcript Vol. 3A at p. 66, lines 2-10, proponent's expert admits there is a range for prevailing wind direction:
> "And then when you look at prevailing wind directions, there's a range there, too, it's not just a vector, that – it's, you know, exactly, you know, such and such degrees." Mr. Peterson further stated that it was not impossible to establish a setback based on prevailing wind direction. Transcript Vol. 3A, p. 67, lines 1-6.
>
> The Judge previously stated that this hearing did not constitute a due process challenge to the ordinance. No factual evidence supported that the county ordinance was not reasonable, was capricious or was arbitrary.

55. The Administrative Law Judge concludes there is good cause not to apply this provision of the ordinance to the project.

Exception to Number 55:

> The proponent has not met its burden to establish by a preponderance of the evidence that there is good cause for the Commission to not apply the County Ordinance as it pertains to establishing the prevailing wind direction.

VII. Setbacks from Neighboring Dwellings.

[63] Ex. 3, Burdick Direct at 7-8.
[64] Ex. 3, Burdick Direct at 8-9 & Ex. 3D (comparing setback compliance under the Commission's standard and the County ordinance).

56. The County's ordinance provision for a commercial WECS specifies a 750-foot setback from participating dwellings and a 10 RD setback for non-participating dwellings, unless the owner agrees to a lesser setback. No setback may be less than 750 feet.[65] The ordinance further provides that the setback for dwellings, schools, churches, health care facilities, and campgrounds shall be reciprocal unless the owner or authorized agent signs a letter of understanding waiving this setback, but no less than a 750 foot setback.[66]

57. The 10 RD setback in the ordinance was intended to function in lieu of more specific performance standards governing noise and shadow flicker.[67] The County acknowledged that the effects of flicker and noise generated by wind towers were difficult to ascertain:

> It would be a matter of determining what level of burden on quiet enjoyment of neighboring properties would be reasonably acceptable. If we chose a decibel level or the number of hours of flicker, we would also have had to determine how and by whom these limits would be measured, how often, under what weather conditions and how costs of measurement would be paid.
>
> …
>
> Based upon staffing and financial resources, in addition to the logistical realities, the County Board chose to eliminate noise and flicker measurement issues by increasing the setback of towers from non-participating neighbors. The idea being that a greater distance would eliminate the need for noise or flicker limitations. We chose a sliding scale of a 10 rotor diameter setback instead of a specific distance setback. The purpose behind this decision was that the size of the tower would determine the setback distance. For instance a shorter tower would have less of a noise or flicker impact and could be sited closer to dwellings.[68]

Exception to Number 57:

> Lisa Hanni, Transcript Vol. 2, p. 321 line 4 – p. 324 line 8. Ms. Hanni discusses the County's approach to developing Ordinance standards that support the public health, safety, morals, and welfare with clear, enforceable regulation that can be affordably enforced by County staff.
>
> "On page 2 of your testimony, in paragraph 9, the second paragraph of paragraph 9, I guess, you state: We discussed the effects of flicker and noise generated by wind towers. These two issues were difficult to ascertain. It would be a matter of

[65] Ex. 24B, Art. 18, § 4.
[66] Ex. 24B, Art. 18, § 4.
[67] Tr. 2:323-24 (Hanni).
[68] Ex. 24, Hanni Rebuttal at 2.

determining what level of burden on quiet enjoyment of neighboring properties would be reasonably acceptable.
And by reasonably acceptable who are you referring to?
A The neighboring properties.
Q That would be all property owners, participants, nonparticipants?
A Yes, it would be all the owners – all the property owners, but especially in this, you know, that's why we have a different level for participants and nonparticipants, different setbacks.
Q Is that generally a standard that the county uses in developing or in adopting ordinances, whether it's something that's reasonably acceptable?
A Part of our consideration in adopting ordinances or conditional use permits or any of that is we look at how we can regulate things. If we put a regulation in, we have to figure out how we're going to enforce that.
And part of it also is when we get public comment and we find out that this new use in the neighborhood might have some adverse effects, that's also taken into account. That's part of the public hearing process.
And so this is, you know, part of our statute is to look at the health, safety, morals, and welfare of the community. And so it's involved in all the planning processes.
Q Is that different than the – like, for example, a public interest standard?
A I'm not familiar with what you're meaning by a public interest standard.
Q Okay. I'll move on. You go on to say in that paragraph: If we chose a decibel level or the number of hours of flicker, we would also have had to determine how and by whom these limits would be measured, how often, under what weather conditions, and how cost of measurement would be paid.
So by not choosing particular levels for those, for flicker or noise, is it primarily the enforceability problem?
A That's a part of it. We would have to come to a consensus on how we would – what amount of flicker and noise we would deem acceptable, but – when we would do the testing, where the testing would be, would it be inside ah ome, would it be outside the home on any part of the person's property, the length of time we think would be reasonably acceptable.
If we had to purchase equipment to do the measuring, if I had to hire more staff to do it, all those things come into account when we make our regulations to see how are we going to enforce this. If somebody complains that they are over that amount, how are we as the county going to enforce that.
Q So you do consider the sort of complaints that might come in; is that correct?
A We consider how we're going to enforce what we've written.
Q All right. Is it a fair characterization to say that the 10 RD setback waqs substituted for standards on noise and flicker?
A The 10 RD setback from my understanding was they didn't want the – it went through a number of iterations, from the subcommittee to the planning commission, to the county board, all within about a month, and it went back and forth.
The county board's final decision was take out flicker and noise limits and set the setback at 10 RD.
Q So essentially that's substituting 10 RD for noise and flicker; is that correct?

A That was my understanding of their decision."

58. The County also asserts that:

> Recognizing the challenge of administering various performance standards for regulating such impacts as noise or shadow flicker the County Board settled on a setback from non-participating dwellings of 10 rotor diameters as a rational standard that would better protect the quality of life of County residents. A lesser setback of a minimum of 750' plus compliance with State Noise Standards included in the revised ordinance was intended to allow more flexibility in locating wind turbines in proximity to the dwellings of participating property owners or non-participating property owners who may be willing to negotiate a setback of less than 10 rotor diameters with a Wind Energy Developer.[69]

59. In a portion of the ordinance relating to procedures (as opposed to setbacks), the ordinance provides:

> The County may, at its discretion, require a Development Agreement to address specific technical procedures which may include but are not limited to: road use and repair, telephone line repair, site specific issues, payment in lieu of taxes, other financial securities, or real property value protection plans. The County may negotiate with applicants to limit night time noise to a limit of an annual average of 40 decibels (dBA), corresponding to the sound from a quiet street in a residential area (World Health Organization night noise guidelines for Europe).[70]

60. The Commission's general wind permit standards require that turbines must be set back at least 500 feet from all homes, plus whatever additional distance is necessary to meet state noise standards.[71] In siting wind turbines, the setback distance necessary to comply with this standard is calculated based on site layout and turbine for each residential receiver. Typically, a setback of between 750 and 1,500 feet is required to meet this standard, depending on turbine model, layout, and other site-specific conditions.[72]

61. The Applicant has proposed to site turbines using a setback of 1,500 feet from the dwellings of non-participants and a minimum of 1,000 feet for participating landowners. The OES recommended these setbacks as permit conditions.[73]

A. State Noise Standards.

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[69] Ex. 27, Wozniak Rebuttal at 4. Although the setback provisions in section 4 make no reference to state noise standards, a different part of the ordinance provides that all WECS shall comply with State of Minnesota Noise Standards. See Ex. 24B, Art. 18, § 9, subd. 1.

[70] Ex. 24B, Art. 18, § 3, subd. 4.

[71] Ex. 21, Attachment A at 8.

[72] Ex. 21, Attachment A at 8; Ex. 6, Casey Direct at 3.

[73] OES Comments (Dec. 20, 2010), Attachment 2 (Comments and Recommendations of the Minnesota Office of Energy Security, Energy Facility Permitting Staff dated Oct. 13, 2010); Attachment 3 (Supplemental Comments dated Oct. 20, 2010).

Exception to Number 61:

> OES Comments (Dec. 20, 2010), Attachment 2 (Comments and Recommendations of the Minnesota Office of Energy Security, Energy Facility Permitting Staff dated Oc. 13, 2010); Attachment 3 (Supplemental Comments dated Oct. 20, 2010):
> "62. AWA Goodhue has agreed to site all turbines at least 1,500 feet away from the nearest non-participating residence and at least 1,000 feet from participating residences (site permit section 4.2). In addition, the Permittee will be required to site all turbines at distances sufficient to meet the Minnesota Noise Standard found in Minnesota Rules Chapter 7030 (site permit section 4.3).
> 63. In addition, the site permit will require AWA Goodhue to set back its turbines a minimum of five rotor diameters (1,355 feet) on the prevailing wind axis from the center of the wind turbine tower to the property boundary of all non-participating landowners and three rotor diameters (813 feet) on the non-prevailing wind axis (site permit section 4.1). The site permit (Section 4 also establishes other setback requirements from roads and other features."

62. Pursuant to Minn. Stat. § 116.07, the Minnesota Pollution Control Agency (MPCA) was charged with the responsibility to adopt standards describing the maximum levels of noise that may occur in the outdoor atmosphere. The statute provides, in relevant part, that:

> [s]uch noise standards shall be premised upon scientific knowledge as well as effects based on technically substantiated criteria and commonly accepted practices. No local governing unit shall set standards describing the maximum levels of sound pressure which are more stringent than those set by the Pollution Control Agency.[74]

63. The noise standards for all outdoor noise are established in Minn. R. Chapter 7030. The MPCA's nighttime noise standard in residential areas is 50 dB(A) at L50, which means that noise levels cannot exceed 50 dB(A) more than 50% of the time during one hour.[75] This exposure is based on measurements to be made outdoors, pursuant to rules specifying equipment specifications, calibration, measurement procedures, and data documentation.[76]

64. The rule setting this standard further provides:

> These standards describe the limiting levels of sound established on the basis of present knowledge for the preservation of public health and welfare. These standards are consistent with speech, sleep, annoyance, and hearing conservation

[74] Minn. Stat. § 116.07.
[75] Minn. R. 7030.0040, subp. 2.
[76] Minn. R. 7060.0060, subps. 1-5.

requirements for receivers within areas grouped according to land activities by the noise area classification (NAC) system established [in another rule part].[77]

65. According to the MPCA, the decibel levels of common noise sources are as follows:[78]

140	Jet engine (at 25 meters)
130	Jet aircraft (at 100 meters)
120	Rock Concert
110	Pneumatic chipper (at one meter)
100	Jackhammer (at one meter)
90	Chainsaw, lawnmower (at one meter)
80	Heavy truck traffic
70	Business office, vacuum cleaner
60	Conversational speech, typical TV volume
50	Library
40	Bedroom
30	Secluded woods
20	Whisper

66. The MPCA regulates noise from specific sources, without regard to the level of background noise. When the distance from a point source of sound is doubled, the sound level decreases by six decibels. For example, a sound that is measured at 60 dB(A) from 50 feet away is measured at 48 dB(A) from 200 feet away. To determine the cumulative impact of two sources of noise at the same level, if they are equidistant and at fixed locations, the decibel level would increase by three.[79] If the sources of sound are more than 10 dB apart, there is no incremental increase in decibel level, because the louder noise predominates; and when sources of noise are less than 10 dB apart, the magnitude of increase in decibel level decreases from 3 dB down to zero.[80]

67. Accordingly, sound levels from two or more sources cannot be arithmetically added together to determine the overall sound level. Existing ambient noise levels should not be added to noise produced by a turbine to determine the level of noise at a receptor from all sources.

68. A change in decibel level corresponds to a perceived change in loudness as follows:[81]

+/- 1 dB(A)	Not noticeable

[77] Minn. R. 7030.0040, subp. 1.
[78] Ex. 24A at 2599, 2602.
[79] Ex. 24A at 2599, 2602-03.
[80] Ex. 6, Casey Direct at 3-4; Tr. 2:213-20 (Casey).
[81] Ex. 24A at 2605.

+/- 3 dB(A)	Threshold of perception
+/- 5 dB(A)	Noticeable change
+/- 10 dB(A)	Twice (or half) as loud
+/- 20 dB(A)	Four times (or one-fourth) as loud

69. The human ear cannot hear lower frequencies as well as higher frequencies. The A-weighting scale is used to duplicate the sensitivity of the human ear. At 100 Hertz, the A-weighting scale filters out approximately 20 dB from an incoming signal before it is combined with levels from other frequency ranges to produce an A-weighted sound level. The C-weighting scale represents actual sound pressure as it is received by a sound level meter.[82]

Exception to Number 69:

Summary of Public Testimony In the Matter of the Application for a Certificate of Need and Large Wind Energy Site Permit for the 78 Megawatt Goodhue Wind Project in Goodhue County, Section A Turbine Noise from the ALJ's report on a hearing in Goodhue, Minnesota, July 21-22, 2010:

"Numerous residents (26) of Goodhue County objected to the noise that will be produced by the wind turbines.

An important focus of the hearing testimony and the later comments was the decibel level at which residents are thought by some to begin to suffer serious health impacts. The threshold level is vigorously disputed - and both proponents and opponents of the project point the Commission toward the underlying scientific literature.

For example, the Goodhue County Planning Advisory Commission concludes that the nighttime residential noise standard of 50-55 dB set by the Minnesota Pollution Control Agency in Minn. R. 7030.0040 does not adequately protect the health of the citizens of Goodhue County. It points the Commission to the Minnesota Department of Health's 2009 publication "Public Health Impacts of Wind Turbines." In that publication, the MDH opined that the low frequency sound generated by wind turbines is a nighttime sleep issue because the walls and windows of homes block higher frequencies better than they shield out lower frequency noise. Further, MDH concluded that Minn. R. 7030.0040 appears to underweight penetration of low frequency noise into dwellings - with the possible result of sleep deprivation. The Advisory Commission believes that the research underlying the MPCA's standard is dated and that it should not be given deference by the Commission because it is not based upon current research and does not reflect current scientific knowledge. After consulting with the Goodhue County Public Health Director, the Advisory Commission advocates for a nighttime

[82] Ex. 24A at 2605.

outdoor standard of 40 dB.

Goodhue residents Bruce and Marie McNamara hired sound engineer and acoustician Richard James to conduct noise tests and provide testimony relating the AWA Goodhue project. At the McNamara's request, Richard James, of E-Coustic Solutions, performed studies at test sites in Goodhue County between July 20 and 22, 2010. Mr. James opined that the nighttime noise level at an isolated residential lot in Goodhue County was 20 to 25 decibels (dBA). According to AWA Goodhue's sound modeling studies, this same property will experience a background sound level of 43 dBA once the wind turbines are in place. Mr. James concluded that the sounds of nature that currently comprise the nighttime soundscape will be replaced by the sound of wind turbines.

Moreover, Mr. James indicated that a 5 dBA increase in background sound levels is noticeable to people but unlikely to generate complaints. An increase of 10 dBA, however, often causes complaints from individuals. If there is a background sound level of 45 to 50 dBA at nonparticipating properties, Mr. James predicts a set of severe health impacts. Accordingly, Mr. James urges more stringent noise standards than those called for by the MPCA or the MDH.

The Applicant takes strong issue with Mr. James' calculations, methodologies, modeling techniques and the verifiability of his methods. It asserts that the average project-related noise level is quieter than the quietest average noise level in the community.

The Applicant casts doubt on the merit of Mr. James' assessments when it argues that "Mr. James does not provide evidence of the measurements he claims to have made, does not provide an explanation of the monitoring methodology he used, and does not provide evidence concerning the quality and accuracy of the measurement equipment or if his work product has undergone a quality control review by a qualified environmental acoustician."

John Meyer, a resident of Stewartville, Minnesota, argued that the noise concerns raised by those opposing the project are exaggerated. He claimed that the decibel measurements at the home sites are taken outside the residences and that the sound experienced inside these dwellings will be significantly less. He asserted the many residential air-conditioning units produce sound levels up to 76 decibels. Mr. Meyer argued that in the absence of conclusive scientific data as to the harmful effects of wind turbine noise, the Commission should approve the project."

70. The noise level audible in any dwelling will depend on the distance from a noise source and the attenuation provided by the surrounding environment (atmosphere, terrain, construction type and insulation of the dwelling).[83]

[83] Ex. 24A at 2601.

B. Applicant's Noise Study.

Exception to Number 70:

> Most significantly, the audible noise level in any dwelling will depend on the initial volume of the noise source.

71. Based on the manufacturer's specifications for the turbines proposed for use in this project, a setback of 750 feet for one turbine would meet MPCA noise standards. In this case, because multiple turbines could potentially impact a residence, the Applicant conducted a sound modeling study in June 2010 to determine the maximum sound level from the cumulative effect of all proposed turbines.

Exception to Number 71:

> See the discussion of actual test results done at locations in the project area at number 69 above for clear contrasting opinions of Richard James, sound engineer and acoustician.

72. The study showed that existing ambient noise levels in the project area ranged from 33 to 52 dB(A) for hourly median noise. Nighttime noise in the quietest locations (away from traffic areas, near residences and farm buildings) ranged from 33 to 43 dB(A) in Location 1 and ranged from 35 to 45 dB(A) in Location 2. These results are consistent with noise levels measured in rural settings with high quality wind resources.[84]

73. The study used acoustic analysis software called Cadna-A to calculate noise levels from the proposed wind turbines. This software incorporates internationally accepted acoustical standards. In modeling the noise produced by wind turbines, the study used conservative assumptions with regard to terrain (flat), level of absorption provided by agricultural fields (70%), and wind (assumed all turbines were operating simultaneously at their highest rated operating speed). The average modeled level of noise from wind turbines, based on th4ese assumptions, was 31 dBA; the median modeled level was 32 dBA; and the maximum modeled level was 43 dBA.[85] The average and median noise levels calculated for the turbines are lower than the existing ambient sound conditions measured in the noise study. The maximum noise level calculated for the turbines at any residence is 7 dBA below the MPCA L50 noise limit.[86]

Exception to Number 73:

> Tim Casey testified that he did not evaluate low frequency sound. Transcript Vol. 2, p. 256, L. 11-16. The Minnesota Department of Health, Impacts of Wind

[84] Ex. 6, Casey Direct, Attachment A at 8, 12 & 13.
[85] Id., Attachment A at 10-11
[86] Ex. 6, Casey Direct at 5-6.

Turbines, May, 2009, recommended that isopleths for dBC through dBA greater than 10 decibels should also be determined.

74. The study results demonstrate that all of the wind turbine sites proposed by the Applicant are located sufficiently far from dwellings to meet the MPCA noise standards.[87] The closest distance between an existing home and a proposed turbine in this project is 1,152 ft from the home of a participant.[88]

C. Applicant's Shadow Flicker Study.

75. Shadow flicker is the alternating changes in light intensity caused by moving rotor blades at a given stationary location, such as the window of a home. In order for shadow flicker to occur, three conditions must be met: the sun must be shining, with no clouds obscuring the sun; the rotor blades must be spinning and be located between the receptor and the sun; and the receptor must be sufficiently close to the turbine to be able to distinguish a shadow created by the turbine. The intensity and frequency of flicker at a given receptor are determined by factors such as the sun angle and sun path, turbine and receptor locations, cloud cover and degree of visibility, wind direction, wind speed, nearby obstacles, and local topography.[89]

76. HDR Engineering prepared a shadow flicker analysis for the Applicant using the most recent actual coordinates of home and turbines, digital elevation data, and physical characteristics of the turbines proposed for this project. The model incorporates sunshine probability data from the National Weather Service and wind direction data from meteorological towers in the project area. It makes conservative assumptions that the turbines will operate 100 percent of the time; that receptors can be impacted from all directions; and that no shading or screening from buildings or vegetative cover will take place.[90]

77. The study modeled actual expected flicker based on these assumptions for the 289 homes located within 6,562 feet of a project turbine. The following results were obtained:

Expected Hours/Yr	No. of Receptors	% of Receptors[91]
0	69	23.9
0.01-10	179	61.9
10-20	30	10.4
20-30	7	2.4
30-40	4	1.4

78. Based on these results, 278 homes (96.2%) are expected to experience less than 20 hours of shadow flicker per year; 248 (85.8%) are expected to experience less than 10 hours

[87] Id., Attachment A at 11.
[88] Ex. 6, Casey Direct at 6.
[89] Ex. 7, Zilka Direct at 2-3 & Attachment A.
[90] Ex. 7, Zilka Direct at 4-5 & Attachment A.
[91] Ex. 7, Zilka Direct Attachment A at 6.

of shadow flicker per year. Of the 11 homes that are expected to experience more than 20 hours or shadow flicker per year, five are participants and six are non-participants. The greatest amount of expected shadow flicker at the home of a participant is 39 hours, 21 minutes per year; the greatest amount of expected shadow flicker at the home of a non-participant is 33 hours, 11 minutes. There are 4,462 annual daylight hours in Goodhue County, which means that the maximum exposures for both participants and non-participants is less than one percent of the available daylight hours per year.[92]

79. The Commission has no setback standards that are explicitly directed at shadow flicker. The proposed site permit recommended by OES/EFP in this case would require the Applicant to provide, at least ten working days prior to the pre-construction meeting, data on shadow flicker impacts on each residence for both participating and non-participating landowners. It further provides that the Applicant "shall provide documentation on its efforts to minimize shadow flicker impacts."[93] In addition, the Commission's general wind permit standards require that applicants establish procedures for handling and reporting complaints to the Commission concerning "any part of the LWECS in accordance with the procedures provided in permit."[94]

Exception to Number 79:

The State of Minnesota has not promulgated a rule concerning limitation of hours of shadow flicker. Transcript Vol. 3A, p. 87, l. 7-10. Goodhue County's ordinance does not specifically address shadow flicker. However, the ALJ concludes at number 101 below:

"101. Although the Commission's general wind permit standards do not directly address shadow flicker, the proposed site permit could include conditions to address potential problems with shadow flicker. For example, in addition to requiring documentation of the Applicant's efforts to minimize shadow flicker impacts, the Commission could require the filing of a plan to mitigate any complaints related to shadow flicker, through methods such as landscaping or use of blackout shades. It is inequitable to expect that non-participating homeowners, in particular, should be wholly responsible for mitigating those complaints. Such a permit condition would be a more targeted method of regulating potential problems with shadow flicker.

Exception to Number 101:

Goodhue County respectfully applauds the Administrative Law Judge's findings in support of the rights of non-participating property owners' quiet enjoyment of their property."

[92] Ex. 7, Zilka Direct at 5 & Attachment A. These results are virtually identical to a study HDR conducted in July 2010. See Ex. 24A at 538-611.
[93] OES Proposed Site Permit § 6.2.
[94] Ex. 21, Attachment A at 15; Proposed Site Permit, Attachment 2.

80. The Nicollet County ordinance, upon which the County's ordinance was based, provides for a limit of 30 hours per year for any receptor within a one-mile radius of each turbine.[95]

D. Application of the Ordinance.

81. A 10 RD setback is not a fixed distance but is determined by the length of the turbine rotor used in a particular project. In this case, a 10 RD setback amounts to 2,707 feet, or more than one-half mile from a non-participating dwelling.[96]

82. If the County ordinance were applied, the 10 RD setback for non-participating residences would preclude placement of 43 of the 50 turbines proposed for this project.[97] Although the ordinance would allow a 750-foot setback for participating owners, the 2,707-ft setback for non-participants essentially would "swallow" the shorter setback for participants.[98] A single non-participating landowner could preclude the siting of a wind turbine in an area of approximately four-fifths of a square mile surrounding the non-participant's property.[99]

Exception to Number 82:

> Mr. Burdick is not an engineer, nor did he provide a mapping study to support his assertion. He acknowledged at Transcript Vol. 1, p. 40 lines 2-11 Burdick Cross and p. 48 lines 19-25 through p. 49 line 24, that the Applicants made no effort to seek additional participants or to purchase additional rights after the 10 RD setback was adopted by the County:
> Q You discuss two ways you acquire land rights to allow construction of your project, leases and participation agreements, correct?
> A Correct.
> Q And in the participation agreement, you say that that's a situation where a landowner waives property line setbacks in return for compensation, correct?
> A Correct.
> Q Couldn't you use these same techniques to address the county setbacks and obtain agreements or participation that would reduce the setback from the 10 rotor diameter setbacks to the 750-foot setback minimum that's in the county ordinance?
> A Presumably that would be one way of recording participation, yes.
> Q Have you explored that possibility before or since the ten rotor diameter setback was put in place by the county?
> A There's a map in my surrebuttal which shows all of the parcels which we approached for participation in the project.
> Q And is that since the county's ten rotor diameter setback was put in place?

[95] Nicollet County Ordinance § 904.1.
[96] Ex. 3, Burdick Direct at 15. One-half mile is 2,640 ft.
[97] Ex. 3, Burdick Direct at 16 & Attachment 3F.
[98] Id.
[99] Ex. 10, Burdick Surrebuttal at 5.

A No, it is not.
Q Have you revisited that issue since it became obvious it was a critical issue to your survival of your project?
A No, we have not, largely because we pursued our project under the then-existing regulatory framework and had sufficient land control for siting the turbines and proceeded on that basis." See also testimony of Cole Robertson, Transcript Vol. 2, p. 108-109, lines 22-25, 1-6.

83. The Applicant has examined whether the project could proceed under the ordinance by using fewer, larger turbines at the same locations; but because larger rotor diameters would result in an even longer setback distance, this option was not feasible.[100] The Applicant also considered use of a smaller turbine, which would result in a shorter setback distance; but this option would reduce the project size to 36 megawatts.[101] Finally, the Applicant considered acquiring more land rights so that the project could be sited with the proposed equipment in compliance with the 10-RD setback. This analysis showed that the 10-RD standard would require so much additional land (approximately seven times the acreage already negotiated with landowners) that the project would become cost-prohibitive.[102]

Exception to Number 83:

The Administrative Law Judge states that financial impact is marginally relevant. Transcript Vol. 2, p. 157, line 19-25. The Applicant has chosen not to explore more economical alternatives such as seeking increased participation following the adoption of the County Ordinance. See number 82 above.

84. The County was aware when the ordinance was passed that a setback of this magnitude would leave very little area available for siting LWECS.[103]

85. Although the other parties have suggested that the Applicant could re-negotiate its leases and participation agreements to take advantage of the 750-foot setback allowed for participants, or could offer to pay more money to non-participants in order to obtain more land rights,[104] the record is clear that application of the 10-RD setback to this project (as it has been developed to date) will effectively preclude the entire project. The assertion that the Applicant might be able to negotiate waivers of this requirement with those who have declined to participate in the past is speculation that is not founded in any evidence.

Exception to Number 85:

[100] Ex. 3, Burdick Direct at 17.
[101] Id. at 18.
[102] Ex. 2, Robertson Direct at 4; Tr. 1:199 (Burdick).
[103] Ex. 25C; Ex. 29; Tr. 3B:23 (Wozniak).
[104] See Post-Hearing Memorandum of Belle Creek Township at 6-7 ("The negotiated price of a limited waiver of the setback requirement would likely be less than the lease payments to an owner who agrees to turn over a portion of his property to AWA for the placement of a turbine on his property."); Goodhue County Brief at 21; Post-Hearing Brief of Goodhue Wind Truth at 6-7.

See Number 82 and Number 83 above.

E. Evidence Regarding Health and Safety to Support the 10-RD Setback.

86. There is no scientific support in peer-reviewed literature for the proposition that wind turbines cause any adverse health effects in humans.[105] Although some people respond negatively to the noise qualities generated by the operation of wind turbines, there is no scientific data to show that wind turbines cause any disease process or specific health condition.[106] In addition, there are no known human health effects from shadow flicker generated by wind turbines in the scientific literature.[107]

Exception to Number 86:

These opinions, which here appear stated as factual conclusions, are solely the opinions of Dr. Roberts, proponent's expert. They are inconsistent with the Minnesota Department of Health Study discussed at numbers 87 – 91 herein.

87. In 2009, the Minnesota Department of Health evaluated the public health effects of wind turbines by reviewing the literature and modeling shadow flicker.[108] In reviewing the literature, the Department of Health noted that human sensitivity to sound is variable and that low frequency noise accompanied by shaking, vibration, or rattling may be less tolerable to people. It noted that noise measured on the dB(C) scale (which, as noted above, includes more low-frequency noise that is not audible to the human ear) may better predict annoyance than noise measured on the dB(A) scale.[109]

Exception to Number 87:

The Minnesota Department of Health conducted its study specifically in response to a request from the MNPUC. That study is still available for comment in MNPUC Docket No. E,G-999/M-07-1102 (Jan. 11, 2008). To date the MNPUC has not acted on the information provided by the Health Department or commissioned additional research from other sources or Minnesota governmental agencies as the report recommended.

88. In its model of shadow flicker, the Department assumed a receptor 300 meters (984 ft) perpendicular to, and in the shadow of the blades of a wind turbine. This model suggested that the receptor could be in the flicker shadow of the rotating blade for almost one and one-half hours per day.[110] The report does not indicate over what period of time this exposure could occur. The paper then provides "With current wind turbine designs, flicker should not be an issue at distances over 10 rotational diameters (= 1000 meters of 1 km (0.6 mi)

[105] See generally Ex. 11, Roberts Surrebuttal & Attachment B.
[106] Ex. 11, Roberts Surrebuttal Attachment B at 7.
[107] Ex. 11, Roberts Surrebuttal at 6.
[108] Ex. 24A at 1923-1954. Other copies appear at 2252-83, 3727-58, and 5038-69.
[109] Ex. 24A at 1944-45.
[110] Ex. 24A at 1939.

for most current wind turbines)."[111] It is unclear whether this conclusion is based on the modeled results or on a recommendation made in the literature.

Exception to Number 88:

See Number 86 and Number 87 above.

89. The Department of Health made the following recommendations to assure informed decisions, and added that any noise criteria beyond current state standards used for placement of wind turbines should reflect priorities and attitudes of the community:

- Wind turbine noise estimates should include cumulative impacts (40-50 dB(A) isopleths) of all wind turbines.

- Isopleths for dB(C) – dB(A) greater than 10 dB should also be determined to evaluate the low frequency noise component.

- Potential impacts from shadow flicker and turbine visibility should be evaluated.[112]

Exception to Number 89:

See Number 86 and Number 87 above.

90. The Department of Health also noted that the noise standards set by the MPCA appear to "underweight" low-frequency noise by using the dB(A) measurement. Although this was not included in its recommendations, the Department noted that in other countries, a 5 dB "penalty" is added to measured levels of dB(A) as a surrogate for low-frequency noise, when the difference between measured dB(A) and dB(C) levels is more than 10 dB.[113]

Exception to Number 90:

See Number 86 and Number 87 above.

91. The Applicant's noise study modeled the cumulative impact of all wind turbines, as recommended by the Department of Health. Although it did not model low-frequency noise, because state standards do not require it, the maximum dB(A) measurement of 43 would still meet MPCA standards even if the five dB "penalty" were added to account for low-frequency noise. The Applicant also evaluated shadow flicker impacts using a much more sophisticated modeling system than the Department of Health appears to have used, and its results showed that, using a greater setback distance, 96% of homes in the project area could be exposed to some degree of shadow flicker less than 20 hours per year.

[111] Ex. 24A at 1939.
[112] Ex. 24A at 1951.
[113] Ex. 24A at 1945-47.

Exception to Number 91:

See Number 86 and Number 87 above.

There is no evidence in the record to support the assertion that the Applicant's evaluation was "much more" sophisticated than the Department of Health's.

92. Some of the other parties appear to take the position that they are not obligated to direct the Commission's attention to any evidence regarding health and safety to support the setback, as this would constitute an "impermissible shift in the burden of proof" onto them and away from the Applicant.[114] The Administrative Law Judge advised these parties at the outset of this proceeding that this contested case is not a due process challenge to the ordinance.[115] The Applicant is not required to show that the County acted unlawfully in the adoption of the ordinance or that the terms of the ordinance lack a rational basis. Rather, this is a contested case proceeding for the purpose of developing the record as directed by the Commission, so that the Commission may determine for itself its obligation to consider and apply the ordinance under Minn. Stat. § 216F.081 and to determine, if appropriate, whether there is good cause not to apply any provision of the ordinance.

Exception to Number 92:

This assignment by the PUC to the Administrative Law Judge was noted to be a "Contested Hearing". Certificate of Need Docket, Order Deferring Consideration of Application for Certificate of Need (Nov. 5, 2010).

Minn. R. 7854.0900, Public Participation, at subpart 5, sets out the requirements of a contested case hearing. One requirement is that a material issue of fact has been raised. A second requirement is that the hearing must be conducted according to the rules of the Office of Administrative Hearings. The rule finally provides as follows:

"For a contested case hearing, the Commission shall identify the issue to be resolved and limit the scope and conduct of the hearing according to applicable law, due process, and fundamental fairness."

Alternatively, the Commission may request the Administrative Law Judge to identify the issues and determine the appropriate scope and conduct of the hearing according to applicable law, due process and fundamental fairness.

Minn. R. 1400.7300, Rules of Evidence, provide, in part, as follows:

[114] Goodhue County Brief at 14; Coalition for Sensible Siting Corrected Post-Hearing Memorandum at 6 (PUC "has no authority to question the County's basis or justification for its ordinances.").
[115] See First Prehearing Order 14 (Dec. 8, 2010).

"Subp. 2 Evidence part of record. All evidence to be considered in the case, including all records and documents, in the possession of the agency or a true and accurate photocopy, shall be offered and made a part of the record in the case. No other factual information or evidence shall be considered in the determination of the case."

"Subp. 4 Official Notice of Facts. The Judge may take notice of judicially cognizable facts but shall do so on the record and with the opportunity for any party to contest the facts or notices."

"Subp. 5 Burden of Proof. The party proposing that certain actions be taken must prove the facts at issue by a preponderance of the evidence, unless the substantive law provides a different burden or standard…."

In the Administrative Law Judge's First Prehearing Order dated December 8, 2010, the Court stated at number 10 as follows:

"For any disputed issues of material fact, the Administrative Law Judge has determined that the Applicant would have the burden of proof."

At number 11 of the same Order, the Judge stated, in part:

"The Administrative Law Judge concludes that "good cause" is a legal standard to be applied based on the factual record to be developed in this case."

At number 14 of the same Order, the Judge states, in part:

"This contested case is not a due process challenge to the validity of the Ordinance."

In its Second Prehearing Order at number 5 dated January 4, 2011, the Court states, in part:

"It does not appear from the prehearing submissions of the parties that there are any genuine issues of material fact at this time, although there are open factual questions about the impact of applying the ordinance standards that should be developed at hearing."

The Court then goes on to set up the order of hearing for Applicant and Intervenors, provides that Applicant will submit direct testimony and Intervenors' rebuttal testimony and sets out an order for discovery. Consequently, at the time this Order was issued, discovery was just commencing.

"Material fact" is defined as a determination of whether there is an absence of a factual issue as to a material fact after a careful scrutiny of the pleadings, depositions, admissions, and any affidavits on file. A material fact that will

preclude issuance of a summary judgment is one that will affect the outcome of the case. The material facts need to be both disclosed and undisputed. See Granell v. VFW Milton Barber Post No. 3871, 357 NW2d., 431 (Mn. Ct. App. 1984); Carl v. Pennington, 364 NW2d., 455 (Mn. Ct. App. 1985), 40 Minn. L. Rev. 608 (1956).

Contrary to the Judge's statement that there were no material facts in dispute, at this time, the Prehearing Order Submittal of Belle Creek Township dated December 20, 2010, notes a number of material facts in dispute, the Goodhue Wind Truth Prehearing Memorandum dated December 3, 2010, contains a section entitled "Material Issues of Fact to Address in this Docket.", the Prehearing Memorandum of AWA Goodhue, LLC, dated December 20, 2010, states that "Even if there are issues of material fact, AWA is prepared to demonstrate an abundance of reasons why there is good cause for the Commission not to follow the County standards. Further, the Administrative Law Judge denied the Applicant's request to have a Motion for Summary Disposition.

In the Findings of Fact, Conclusions and Recommendations of the Administrative Law Judge dated April 29, 2011, the first mention about burden of proof comes at Findings number 92. The Court states:

"Some of the parties appear to take the position that they are not obligated to direct the Commission's attention to any evidence regarding health and safety to support the setback, as this would constitute an "impermissible shift of the burden of proof" onto them and away from the Applicant. The Administrative Law Judge advised these parties at the outset of this proceeding that this contested case is not a due process challenge to the ordinance. … Rather, this is a contested case proceeding for the purpose of developing the record as directed by the Commission, so that the Commission may determine for itself its obligation to consider and apply the ordinance under Minn. Stat. § 216F.081 and to determine, if appropriate, whether there is good cause not to apply any provision of the ordinance."

Additionally, the County has reviewed Transcript Vol. 1, p.p. 7-24 and finds no statement of the Administrative Law Judge on the burden of proof prior to the commencement of the hearing.

Goodhue County and intervenors entered the entire record collected in its planning and ordinance development procedures to establish the factual basis on which county decisions were made. That record is cited throughout these findings as the basis for the ALJ's own conclusions and as the basis for exceptions by the intervenors. Goodhue County called two members of staff to testify at the contested case hearing.

93. Subject to their arguments on burden-shifting, the County and the Coalition for Sensible Siting both cited the Minnesota Department of Health White Paper as support for the

10-RD setback. The Minnesota Department of Health did not, however, recommend a 10-RD setback. What the Minnesota Department of Health said was that "[w]ith current wind turbine designs, flicker should not be an issue at distances over 10 rotational diameters." The Applicant has demonstrated that shadow flicker should not be a significant issue for the vast majority of participants and non-participants in this project area, using a 1,500-ft setback for non-participants.

Exception to Number 93:

> The OES EFP in their recommendation to the PUC dated October 13, 2010, by Larry Hartman, 2. Best Practices for Turbine Siting Excerpt from the ALJ Lipman's summary at paragraph A. Length of Setbacks from Wind Turbines, states:
>
> "Much of the discussion associated with setbacks relates to health and safety related issues. Clearly, on this issue there are sharp differences of opinions, with no consensus. In the literature there are peer reviewed articles, a considerable amount of grey literature and articles covering noise, health and safety. While it would be difficult to summarize or discuss these issues in detail, others have. Notable among them are the Department of Health Services in the State of Wisconsin, letter dated July 19, 2010, from Seth Foldy, State Health Officer and Administrator to Edward Marion [eDockets 08-1233, Doc Id. 201010-55414-01], and an August 13, 2009, letter from the Commissioner of the Minnesota Department of Health to Mr. and Mrs. Anderson.
>
> **State of Wisconsin Department of Health Services**
>
> DPH recognizes that wind turbines create certain exposures; audible sound, low-frequency sound, infrasound and vibration, and shadow flicker. Certain ranges of intensity or frequency of audible sound, low frequency sound, vibration and flicker have been associated with some objectively-verifiable human health conditions. Our review of the scientific literature concludes that exposure levels measured from contemporary wind turbines at current setbacks do not reach those associated with objective physical conditions, such as hearing loss, high blood pressure, or flicker-induced epilepsy.
>
> DPH staff previously reviewed the five reports you referenced in your letter. They also reviewed over 150 reports from the scientific and medical literature (published and unpublished) pertinent to the issue of wind turbines and health. DPH has also taken time to listen to, and respond to concerns voiced by local residents, municipalities, and local health department officials from across the State of Wisconsin. We have discussed this issue with colleagues at UW School of Medicine and Public Health, the Minnesota and Maine state health departments, and the Centers for Disease Control and prevention. From this we conclude that current scientific evidence is not sufficient to support a conclusion that contemporary wind turbines cause adverse health outcomes in those living at

distances consistent with current draft rules being considered by the Public Service Commission.

This is different from saying that future evidence about harm may not emerge, or that wind turbines will not change over time, or that annoyance and other quality-of-life considerations are irrelevant. DPH does not endorse a specific setback distance or noise threshold level relating to wind turbines. Nevertheless, in keeping with standard public health practice, DPH favors a conservative approach to setbacks and noise limits that provides more-than-minimum protection to those who live or work near wind turbines. These will help minimize local impacts on quality of life and serve as a buffer against possible unrecognized health effects.

...The most valuable studies would assess subjective complaints and objective clinical measurements in the setting of controlled or known environmental exposures. Such clinical studies fall outside the scope of standard public health investigations.

As additional scientific evidence becomes available, DPH will continue to appraise its relative strength, credibility, and applicability to the issue of wind turbine development in Wisconsin.

Minnesota Department of Health

In a letter to Mr. and Ms. Anderson, [Docket No. 08-1449 (Doc. ID. 2009840926-01)], dated August 13, 2009, MDH Commissioner, Sanne Magnan, M.D. Ph.D, responded to specific questions posed by Mr. Anderson as follows:

Are current standards in Minnesota safe? Regulatory standards protect health and safety, but whether for air, water or Noise, regulators do not set "bright line: standards without also considering cost, technical difficulties, possible benefit and alternatives. No regulatory standard offers absolute safety. The Minnesota Department of Health can evaluate health impacts, but it is the purview of regulatory agencies to weight these impacts against alternative and possible benefits.

Are the proponents of wind turbines syndrome mistaken? As noted in the "White Paper," the evidence for wind turbine syndrome, a constellation of symptoms postulated as mediated by the vestibular system, is scant. Further, as also noted, there is evidence that the symptoms do not occur in the absence of perceived noise and vibration. The reported symptoms may or may not be caused by "discordant" stimulation of the vestibular system.

Does more study of adverse effects need to be undertaken? More study may answer questions about the actual prevalence of unpleasant symptoms and adverse effect under various conditions such as distance to wind turbines and distribution of economic benefit. However, there is at present enough information to determine

the need for better assessment of wind turbine noise, especially at low frequencies. Such assessments will likely be beneficial for minimizing impacts when projects are sited and designed. Also, even without further research, there is evidence that community acceptance of projects, including agreement about compensation of individuals within project areas, will result in fewer complaints. Therefore more research would be useful, but the need will have to be balanced against other research needs.

Furthermore, a state agency, the Minnesota Department of Health, has raised significant health and safety concerns and states that more study is needed as they do at pages 25-26 of the Minnesota Department of Health report dated May 22, 2009, "Public Health Impacts of Wind Turbines", at Goodhue County Exhibit 24 bate stamp 003754 and 003755.

94. In 1999, the World Health Organization issued a report on community noise concluding that, for a good night's sleep, the equivalent sound level should not exceed 30 dB(A) for continuous background noise over a period of eight hours, and individual noise events exceeding 45 dB(A) should be avoided.[116] The authors recommended that the governments adopt the guideline values as long-term targets, because the report acknowledged that about 30% of the population in European Union countries was exposed to night-time equivalent sound pressure levels exceeding 55 dB(A).[117]

95. In 2009, the World Health Organization issued an updated report on night noise guidelines for Europe. This report recommended a target night-time noise guideline of 40 dB(A) as measured outdoors, averaged over one year; and an interim target of 55 dB(A) as measured outdoors, averaged over one year, for countries that could not achieve the target level in the short term.[118] This is an outdoor noise level, which would correspond to an indoor equivalent sound level of 15 dB(A) lower, assuming slightly open windows and some insulation in a dwelling.[119] The report encouraged member states in the European Union to gradually reduce the proportion of the population exposed to levels over the interim target level within the context of meeting wider sustainable development objectives.[120]

96. Based on the WHO reports, others have advocated even lower night-time noise limits for rural communities.[121]

97. The MPCA standards are consistent with the interim target levels recently recommended by the WHO; however, regardless of the recommendations made by the WHO or others, the MPCA standard are the law in the State of Minnesota, and local authorities are not free to disregard them.

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[116] Ex. 24A at 4474, 4480 (World Health Organization, Guidelines for Community Noise, Geneva 1999).
[117] Ex. 24A at 4467, 4482, 4555.
[118] Ex. 24A, Appendix at 63, 184 (World Health Organization, Night Noise Guidelines for Europe, Geneva 2009).
[119] Ex. 24A, Appendix at 174.
[120] Ex. 24A, Appendix at 184; Ex. 32B, Vol. II, Tabs 1 & 2.
[121] Ex. 24A, Appendix at 5 (G.W. Kamperman and R.R. James, The "How to" Guide to Siting Wind Turbines to Prevent Health Risks from Sound, Oct. 2008).

Exception to Number 97:

The Goodhue County Ordinance does not directly regulate noise.

98. There is no evidence that turbines with shorter rotor diameters necessarily generate less noise or shadow flicker than those with longer rotor diameters. Different turbines with the same rotor diameter length have different maximum sound power levels, and the loudest turbines are not necessarily those with the longest rotor diameters.[122]

Exception to Number 98:

The record of these proceedings is replete with citations to the Commission's general wind permit standards which refer to 5 RD or 3 RD setbacks to protect wind access rights. See for example number 50 of these Findings. Rotor diameter is used throughout as an approximate standard for establishing impact of proposed turbines.

99. The 10-RD setback is an overbroad method of regulating both noise and shadow flicker because it would preclude the siting of wind turbines that meet state noise requirements and that are expected to generate relatively small amounts of shadow flicker for most homes in the project area.

Exception to Number 99:

It is not within the purview of the Administrative Law Judge to challenge the Goodhue County Ordinance as "overbroad." See also Number 98 above.

100. The County's use of a 10-RD setback, as an indirect method of regulating noise, conflicts with Minn. Stat. §116.07, which delegates authority to regulate noise solely to the MPCA and precludes local authorities from setting more stringent standards. If the operation of the project exceeds noise standards that are permitted, the Commission has the authority to address and ensure the resolution of any complaints.

Exception to Number 100:

The Goodhue County Ordinance does not regulate noise or impose noise standards. It imposes reasonable setbacks designed to protect the public health, safety, morals, welfare of the citizens of Goodhue County, the Goodhue County Wind Regulations. The proponent has not met its burden to establish by a preponderance of the evidence that there is good cause for the Commission to not apply the Goodhue County Ordinance requirement as it pertains to setbacks from residences.

[122] Ex. 9, Casey Surrebuttal at 1-2.

101. Although the Commission's general wind permit standards do not directly address shadow flicker, the proposed site permit could include conditions to address potential problems with shadow flicker.[123] For example, in addition to requiring documentation of the Applicant's efforts to minimize shadow flicker impacts, the Commission could require the filing of a plan to mitigate any complaints related to shadow flicker, through methods such as landscaping or use of blackout shades. It is inequitable to expect that non-participating homeowners, in particular, should be wholly responsible for mitigating those complaints. Such a permit condition would be a more targeted method of regulating potential problems with shadow flicker.

Exception to Number 101:

> Goodhue County respectfully applauds the Administrative Law Judge's findings in support of the rights of non-participating property owners' quiet enjoyment of their property.

102. For all the above reasons, there is good cause not to apply this section of the ordinance to the project.

Exception to Number 102:

> The proponent has not met its burden to establish by a preponderance of the evidence that there is good cause for the Commission to not apply the County Ordinance requirement as it pertains to the 10 RD setback from non-participating dwellings.

VIII. Setbacks for Roads.

103. The County's ordinance provision for a commercial WECS provides for a public road setback of 1.1 times the height of a turbine, but allows for a possible reduction for minimum maintenance roads or roads with an average daily traffic count of less than ten.[124] This provision also applies to future rights-of-way if a "planned changed or expanded right-of-way is known."

104. The Commission's general wind permit standards call for a minimum setback of 250 feet from the edge of the nearest road right-of-way.[125] In addition, the Commission typically requires the permittee to make satisfactory arrangements for road use, access road intersections, maintenance and repair of road damage with the governmental jurisdiction having authority over each road. A permittee is also required to promptly repair any private roads, driveways, or lanes that are damaged, unless otherwise negotiated with the landowner.[126]

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[123] See Minn. R. 7854.1000 (commission may include in a site permit conditions that are reasonable to protect the environment, enhance sustainable development, and promote the efficient use of resources). The Administrative Law Judge notes that the 11 homes that would be subject to more than 20 hours per year of shadow flicker might be considered subject to more than minimal amounts of flicker.

[124] Ex. 24B, Art. 18, § 4, subd. 1.

[125] Ex. 21, Attachment A at 8.

[126] Ex. 21, Attachment A at 10-11.

105. Based on the height of the turbines proposed in this case, the County ordinance would require setback of 438 feet from the edge of all road rights of way.[127]

106. The Applicant's proposed site plan does not place any wind turbine within 438 feet from the edge of any road right of way. Although the County ordinance provides for a setback that is more stringent than the Commission's general wind permit standards, the Applicant's site plan would comply with both standards.[128]

Exception to Number 106:

The proponent has not met its burden to establish by a preponderance of the evidence that there is good cause for the Commission to not apply the County Ordinance requirement as it pertains to setbacks from road rights of way.

IX. Setbacks for Other Rights of Way.

107. The ordinance provision for other rights of way provides for a setback of the lesser of (a) 1.1 times the total height of a turbine, or (b) the distance of the fall zone, as certified by a professional engineer, plus 10 feet.[129] The fall zone is defined as the area that is the furthest distance from the tower base in which a guyed tower will collapse in the event of a structural failure. This area is less than the total height of the structure.[130] The ordinance does not specifically define "other rights of way," but indicates that "railroads, power lines, etc." are included in this category.[131]

108. The Applicant does not propose to use any guyed towers in this project.[132] If the ordinance were applied in this case the "fall zone" language would be inapplicable, and the setback from other rights of way would be 1.1 times the total height of a turbine.

109. The Commission's general wind permit standards do not specifically address setbacks from other rights of way. These setbacks have been negotiated by applicants and the entities controlling other rights-of-way within the site permit boundaries.[133]

110. The Applicant has negotiated setback agreements with the owners of all rights of way that would be impacted by placement of a wind turbine near their property.[134]

111. If the County ordinance were interpreted to include pipeline easements, application of this setback would preclude the placement of four of the 50 proposed turbines.[135]

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[127] Ex. 3, Burdick Direct at 10.
[128] Ex. 3, Burdick Direct at 10.
[129] Ex. 24B, Art. 18, § 4, subd. 1.
[130] Ex. 24B, Art. 18, § 2, subd. 9.
[131] Ex. 24B, Art. 18, § 4, subd. 1.
[132] Tr. 3B:50.
[133] See, e.g., Ex. 21, Attachment A at 11 (permit condition requiring repair of private roads "unless otherwise negotiated with landowner"); OES Comments (Dec. 20, 2010), Attachment 1 at 4.
[134] Ex. 3, Burdick Direct at 11.

112. There is no evidence in the record that any owner of a right-of-way in the project area has failed to adequately protect the right-of-way through the agreements negotiated with the Applicant.

Exception to Number 112:

It is not unreasonable to prohibit installation of a tower that can fall over a gas or oil pipeline. The County setback prevents a fallen tower from reaching such a critical installation. Towers have fallen in other locations.

Testimony of Charles Burdick, Transcript Vol. 1, p. 173 line 3 through p. 174 line 6, Burdick Cross by Finstad Hammel:

"A I can't recall if the county specifies why they chose the 1.1 times the total height.
Q Okay. But you are familiar with the 1.1 times the height?
A Yes, I am.
Q Okay, and I believe his morning you said that was reasonable, but that –
A I said we did not object.
Q Okay. You were asked if it was reasonable. The applicant – or the – the applicant has proposed a distance that that's greater than that; is that correct?
A Yes.
Q So whether or not it's reasonable, I would like to ask you if you mean – if you would consider 1.1 times an acceptable distance rather than reasonable?
A As it applies to this project, yes, that's an acceptable distance.
Q Okay. In your experience, do wind turbines fall down?
A There are documented occasions of wind turbines falling, yes.
Q To your knowledge, are there occasions when the GE wind turbines that the applicant proposes to use have fallen down?
A I'm aware of one occasion where a GE turbine has fallen. I don't know if it's specifically this model or not. I would also say that it has more to do with the foundation than the turbine itself.

113. For the above reasons, there is good cause not to apply this provision of the ordinance to the project.

Exception to Number 113:

The proponent has not met its burden to establish by a preponderance of the evidence that there is good cause for the Commission to not apply the County Ordinance requirement as it pertains to the Ordinance requirements for setbacks from other rights of way.

[135] Ex. 3, Burdick Direct at 11.

X. Setbacks for Public Conservation Lands.

114. The County ordinance provides for a setback of "3 RD Non-Prevailing and 5 RD Prevailing" from public conservation lands. Public conservation lands are defined as:

> Land owned in fee title by State or Federal agencies and managed specifically for conservation purposes, including but not limited to State Wildlife Management Areas, State Parks, State Scientific and Natural Areas, federal Wildlife Refuges and Waterfowl Production Areas. For the purposes of this section public conservation lands will also include lands owned in fee title by non-profit conservation organizations. Public conservation lands do not include private lands upon which conservation easements have been sold to public agencies or non-profit conservation organizations.[136]

115. The ordinance defines prevailing and non-prevailing winds in the same manner as for the property line setback (with prevailing wind defined as two fixed 100° arcs, as opposed to wind direction determined by actual measurement). There is no definition for "non-profit conservation organization" in the ordinance.

116. The Commission's general wind permit standards provide that the wind access buffer (the setback of 5 RD prevailing by 3 RD non-prevailing) applies to all parcels for which the permittee does not control land and wind rights, including all public lands. As noted above, however, the Commission permits the use of actual date to determine the direct of prevailing and non-prevailing winds. The Commission's general wind permit standards also provide that setbacks from state trails and other recreational trails shall be considered on a case-by-case basis.[137]

Exception to Number 116:

> The ALJ acknowledges herein that there are no state standards applicable to these setbacks, rather, they "shall be considered on a case by case basis." The proponent has not met its burden to establish by a preponderance of the evidence that there is good cause for the Commission to not apply the County Ordinance requirement as it pertains to wind access.

117. The Applicant has filed no testimony indicating that application of this setback would affect the project. The County offered no evidence as to the need for a setback of this magnitude for public lands or the reason why this setback was selected.[138]

118. The County's ordinance standard is more stringent because of its definition of prevailing and non-prevailing winds; but the Commission's standard could be more stringent than the ordinance if state trails or recreational trails were involved. The Administrative Law Judge concludes that this portion of the ordinance is overbroad because the definition of

[136] Ex. 24B, Art. 18, § 2, subd. 25.
[137] Ex. 21, Attachment A at 8.
[138] The Nicollet County ordinance has a similar "public conservation lands" setback, but that ordinance provides for a setback of 1.1 times the total height. See Nicollet County Wind Energy Conversion Systems Ordinance § 801.1.

prevailing and non-prevailing winds uses a fixed proxy in lieu of actual data. The ordinance is also ambiguous because it fails to define a "non-profit conservation organization." There is good cause not to apply this section of the ordinance to the project.

Exception to Number 118:

> It is not within the purview of the Administrative Law Judge to determine that the County Ordinance is "overbroad". The County's ordinance contains specific criteria which allow it to be applied consistently and predictably. The definition also includes "land owned in fee title by a non-profit conservation organization" is sufficiently clear to allow consistent application and interpretation of the ordinance. The proponent has not met its burden to establish by a preponderance of the evidence that there is good cause for the Commission to not apply the County Ordinance requirement as it pertains to setbacks from public conservation lands.

XI. Setbacks for Wetlands.

119. The County's ordinance provision for a commercial WECS provides for a wetlands setback of either (a) 1,000 feet, or (b) "3 RD non-prevailing and 5 RD prevailing," but it does not define the term "wetland." The wind direction is defined in the same manner as for property line setbacks, using a 100° arc instead of actual measurements. It is unclear from the ordinance when a 1,000-ft setback would be required, as opposed to a 3 RD by 5 RD setback.

120. The County's witnesses recalled very little if any discussion of the wetlands setback in the meetings that led to passage of the ordinance. This provision was modeled on the Nicollet County ordinance.[139]

Exception to Number 120:

> Michael Wozniak testified at Transcript Vol. 3B, p. 52, line 11 through p. 54 line 13:
>
> "Q Okay. You were asked some questions, Mr. Wozniak, about your experience with other kinds of setbacks from wetlands. Do you recall that?
> A I was asked about my experience with setbacks.
> Q All right. I don't mean to put words in your mouth. I'm sorry. My question regards the 1,000-foot setback and I'm wondering if you can tell us any other types of developmental activity in Goodhue County that have a 1,000-foot setback?
> Judge Sheehy: From anything?
> By Ms. Hammel:
> Q From a wetland, excuse me.

[139] Tr. 3B:14 (Wozniak); Tr. 2:304 (Hanni). The Nicollet County ordinance, however, defines a wetland as USFW Types III, IV, and V. See Nicollet County Wind Energy Conversion Systems Ordinance § 801.1.

A For the most part the county doesn't have direct setback requirements from wetlands. Although since many of the wetlands are located in shoreland or floodplain areas, there are – those areas are excluded from various kinds of land use activities and so they are effective setbacks.
Q And do you recall what kind of land use activities those –
A I'll give you an example –
Judge Sheehy: Wait, you've got to let her ask the question.
By Ms. Hammel:
Q I asked what sort of land use activities those might be.
A I could give one example, that would be wireless communication facilities and cell towers, that sort of thing.
Q And do you recall the reason for setback from those?
A The county's regulations governing those facilities were adopted in 1999 and so it's a little hard for me to remember all the reasons. But basically because those areas are environmentally sensitive areas and floodplains subject to inundation periodically, and shoreland areas, there was an aesthetic factor.
And also the county's wild and scenic district. We have the Cannon River, which is a state wild and scenic river through Goodhue County, and that district which has an irregular boundary was excluded in terms of wireless facilities.
Q All right. It's not all wetlands then, it's only particular wetlands?
A Well, there are a variety of issues that came into account in respect to excluding those areas. The fact that a large percentage of the county's wetlands are in those areas was one consideration.
Q Do those areas overlap with any of the project area?
A With this project area?
Q Yes.
A Well, there are a number of public waters in this project area that are bounded by shoreland areas."

121. In the *General Wind Permit Standards Docket,* the DNR initially recommended a 1,000 foot setback from all wetlands, but it ultimately recommended deferring action on that proposal. The Commission consequently retained its practice of prohibiting placement of turbines in wetlands, but requiring no specific setback. The Commission indicated its willingness to consider this issue in the future when and if the record were further developed.[140]

Exception to Number 121:

The Commission's specific decision not to develop standards for wetlands' setbacks specifically creates the presumption that County regulations are necessary.

122. In siting turbines near wetlands, the Commission generally defers to the requirements of other state, local, and federal agencies charged with regulating wetlands. The proposed site permit requires the Applicant to provide a desktop and field inventory of

[140] Ex. 21 at 4.

potentially impacted native prairies, wetlands, and any other biologically sensitive areas within the site and to submit the results to the Commission and the DNR. The proposed site permit also requires compliance with all permits or licenses issued by various state and federal agencies, including Minnesota Pollution Control Agency storm water permits and a DNR license to cross public lands and water, public waters work permits, and state protected species consultations. The Commission's permit standards would allow an electric collector and feeder line to cross or be placed in public waters or public water wetlands, subject to permits obtained from the DNR and other government entities.

Exception to Number 122:

> Goodhue County is one of the "state, local, and federal agencies charged with regulating wetlands", therefore, the Commission should defer to the Goodhue County Ordinance.

123. Wetlands are regulated by the Board of Water and Soil Resources, the County Soil and Water Conservation District, the U.S. Army Corps of Engineers, and the DNR.[141]

Exception to Number 123:

> The Goodhue County Board also regulates wetlands through its Zoning Ordinance and Conditional Use Process. See Finding number 125 herein.

124. The Applicant submitted a wetlands delineation report prepared by Westwood Professional Services to the St. Paul District of the U.S. Army Corps of Engineers and the Goodhue County Soil and Water Conservation District, in support of a wetland boundary and type determination requested under Minn. R. 8420.0310. The report delineated and located portions of 45 wetlands w3ithin the 4.10 sq-mile project construction area, defined as all areas that would potentially incur temporary or permanent disturbance by construction of wind turbine generators, access roads, underground electrical collection cables, crane paths, and substations. All of the wetlands are expected to be regulated under the Minnesota Wetland Conservation Act, and 40 of them are also expected to be regulated under the federal Clean Water Act. Most of the wetlands in this area are associated with ditches and channelized drainages, which are linear features that are difficult to avoid. All but two of the delineated wetlands are substantially disturbed by ditching, sedimentation, and tillage from agricultural activities.[142]

125. The Applicant has met twice with the Technical Evaluation Panel (composed of employees of the Board of Soil and Water Resources, the County Soil and Water Conservation District, and the U.S. Army Corps of Engineers). Four wetlands were eliminated from the project construction area because of specific impacts, and they were replaced with different wetlands. Although the permitting process is not yet final, the Applicant has determined to date

[141] Tr. 3A:12.
[142] Ex. 5, Peterson Direct at Attachment A.

that 0.225 acres of wetlands would be permanently impacted by access roads and subject to replacement through a wetland bank credit.[143]

126. Based on current plants, the turbine nearest to a delineated wetland would be 276 ft away.[144]

127. Wetlands are shaped irregularly, and it is difficult to apply a distance setback framed in terms of wind direction to an irregular shape. Assuming a constant 5-RD setback (1,353 ft) applied to each wetland in the project area, this setback requirement would eliminate 45 of the proposed 50 turbines.[145] This "worse case" analysis might overstate the impact somewhat, but it is difficult to be more precise based on the record.

128. There is no evidence that wetlands require a setback of this magnitude to protect the environment. Wetlands and wind turbines are mutually exclusive, in that wetlands are typically located in areas of low elevation, and wind turbines are located at higher elevations.[146] It would not be possible to build a turbine tower in land saturated with water and meet required construction and engineering standards.[147]

129. The types of wetlands that are typical in the project construction area are not good habitats for birds.[148] A setback requirement of 1,000 feet or more might place a turbine tower near a forested area and possibly result in more avian impacts than if the turbine were sited closer to a wetland.[149]

130. The County's setback provision is ambiguous, in that it is unclear from the terms when a setback of 1,000 feet or more would be required. It is also a crude method of protecting wetlands, compared to the individualized analysis of the impacts on the quantity, quality, and biological diversity of wetlands conducted by the Technical Evaluation Panel that represents all the regulating agencies. For all the above reasons, there is good cause not to apply this provision of the ordinance to the project.

Exception to Number 130:

> Although there are many classes of wetlands, the County definition includes all wetland classes, as such, it is not ambiguous. The Minnesota DNR recommended "a 1,000 foot setback from all wetlands, streams, rivers and lakes listed in the State Public Waters Inventory and those listed in the National Wetlands Inventory." See p. 3 of the Matter of Establishment of General Wind Permit Standards for the Siting of Wind Generation Projects Less than 25 Megawatts, Docket No. E,G-999/M-07-1102, Order Establishing General Wind Permit Standards (Jan. 11, 2008) (General Wind Permit Standards Order). For ease of

[143] Ex. 5, Peterson Direct at 4-6.
[144] Ex. 5, Peterson Direct at 4.
[145] Ex. 3, Burdick Direct at 13 & Attachment 3-E.
[146] Tr. 3A:61 (Peterson).
[147] Tr. 3A:54 (Peterson).
[148] Tr. 3A:26, 36-37 (Peterson).
[149] Id.

reference, a copy of this Order and its attached Ex. A was received in evidence as Ex. 21. A. Wetland Setbacks. The proponent has not met its burden to establish by a preponderance of the evidence that there is good cause for the Commission to not apply the County Ordinance requirement as it pertains to setbacks from wetlands.

XII. Setbacks for Other Structures.

131. The County Ordinance provides for a setback of commercial WECS from "other structures" of "[t]he fall zone, as certified by a professional engineer plus 10 feet or 1.1 times the total height."[150] The ordinance does not define "other structures." As noted above, the definition of "fall zone" applies only to guyed towers, because this project would not involve guyed towers, that portion would not be applicable. The ordinance therefore would call for a setback of 1.1 times the total height6 for "other structures."

132. The Applicant has not identified this provision of the ordinance as one that would impact this project.

133. Because of its ambiguity as to the type of structure it would apply to, there is good cause not to apply this ordinance provision to the project.

Exception to Number 133:

The International Building Code, as adopted by Goodhue County, defines "structures". The proponent has not met its burden to establish by a preponderance of the evidence that there is good cause for the Commission to not apply the County Ordinance requirement as it pertains to setbacks from structures.

XIII. Setbacks for Other Existing WECS and Internal Turbine Spacing.

134. The County ordinance provides for a setback from other existing WECS and internal turbine spacing of "3 RD non-prevailing and 5 RD prevailing." In this section of the ordinance, prevailing wind appears to be defined differently than in other sections pertaining to setbacks. "Prevailing wind" is defined to mean the predominant wind direction in Goodhue County; non-prevailing wind is defined as the non-dominant wind direction in Goodhue County.[151]

135. The Commission has no general permit standards pertaining to internal turbine spacing, but the proposed site permit provides that tur4bine towers shall be spaced no closer than three RD in the non-prevailing wind directions and five RD on the prevailing wind directions. If required during final micro-siting of the turbine towers to account for topographic conditions, up to 20 percent of the towers may be sited closer than the above spacing, but the permittee shall minimize the need to site the turbine towers closer.[152]

[150] Ex. 24B, Art. 18, § 4, subd. 1.
[151] Ex. 24B, Art. 18, § 2, subds. 18 and 21.
[152] Proposed Site Permit § 4.10.

Exception to Number 135:

> The ALJ acknowledges that the Commission has no standards for internal turbine spacing. The requirements of the proposed site permit are not standards and not authoritative unless adopted in the final site permit. The Commission has no standard governing this topic, therefore, Goodhue County's regulation is presumptively valid. The proponent has not met its burden to establish by a preponderance of the evidence that there is good cause for the Commission to not apply the County Ordinance requirement as it pertains to internal turbine spacings within an LWECS site plan.

136. The County ordinance and the proposed site permit are similar, but the ordinance does not allow for closer spacing of up to 20 percent of the towers. It is more stringent, but the Applicant has not indicated that it has any objection to application of this provision or that it would impact the project in any way.

XIV. Setbacks for Bluffs.

137. The County ordinance provides for a setback for commercial WECS of 1,350 feet from the top of bluffs over the Mississippi and Cannon Rivers and 500 feet from the top of other bluffs.[153]

Exception to Number 137:

> County Ordinance Article 18, § 4, subd. 1, establishes setbacks from bluff tops, not Article 19, as noted in footnote number 153.

138. The Commission has not setback standard for bluffs and has not addressed setbacks from bluffs in site permits, as bluffs have not been a factor in previous LWECS site permit dockets.[154]

139. The project area does not include any bluffs, and the Applicant has not indicated that this ordinance provision would impact the project in any way.

140. Although some type of setback for bluffs would be reasonable if there were bluffs in the project area, there appears to be no reason to apply this ordinance provision to the project.

Exception to Number 140:

> As stated by the ALJ herein, the proponent has not met its burden to establish by a preponderance of the evidence that there is good cause for the Commission to not apply the County Ordinance requirement as it pertains to setbacks from bluff tops.

[153] Ex. 24B, Art. 19, §4, subd. 1.
[154] OES Comments (Dec. 20, 2010), Attachment 1 at 6.

XV. Discontinuation and Decommissioning.

141. Section 5, subdivision 12 B of the County ordinance requires that WECS shall have a decommissioning plan outlining the anticipated means and cost of removal at the end of the serviceable life or upon becoming a discontinued use. Subdivisions 12 C through 12 E of the County ordinance require an applicant to fund decommissioning with a cash escrow or irrevocable letter of credit in an amount equal to 125% of the cost estimate prepared by a competent party to ensure that decommissioning is completed as required by the ordinance. The ordinance does not specify when the cash or irrevocable letter of credit is to be provided to the County, who would hold the cash or letter of credit, how any cash would be invested, or how the County would obtain access to the funds if that became necessary.

Exception to Number 141:

> The specific language of Article 18 requires "cash escrow or an irrevocable letter of credit in an amount equal to 125% of the cost estimate prepared by a competent party…" Article 18, Section 5, subd. 12(E). A competent party is defined as an individual "approved by the County; such as a professional engineer, a contractor capable of decommissioning or a person with suitable expertise or experience with decommissioning." Article 18, Section 5, Subd. 12(c).

142. The Commission's rule, Minn. R. 7854.0500, subp. 13, requires applicants to include information regarding decommissioning of the project and restoring the site, including a description of the anticipated life of the project; the estimated decommissioning costs in current dollars; the method and schedule for updating the costs of decommissioning and restoration; the method of ensuring that funds will be available for decommissioning and restoration; and the anticipated manner in which the project will be decommissioned and the site restored. The Commission's rule does not require a cash escrow or irrevocable letter of credit.

143. The Applicant has proposed that the cost estimate and funding be provided in year 15, which is approximately halfway through the project's expected useful life of 25 to 30 years.[155] A requirement to fund the decommissioning cost in year 1 versus year 15 would add approximately $1.5 million to the cost of the project.[156]

Exception to Number 143:

> The total cost will not vary as both the Commission and the County require decommissioning at project end.

144. The ordinance is ambiguous in that it does not describe what is to be done with the cash or irrevocable letter of credit, who would hold the cash or how it would be invested, when it was to be given to the County, or how the County would obtain access to the funds. The Commission's rule requires more specific information about the development of the cost and the schedule for updating it. A requirement to fund decommissioning cost at the beginning of the

[155] Ex. 2, Robertson Direct at 10.
[156] Ex. 2, Robertson Direct at 11.

project is not unreasonable for a project of this magnitude; however, the ambiguities in the ordinance would make it difficult to apply in its current form. For these reasons, there would be good cause not to apply this ordinance provision.

Exception to Number 144:

> The necessary funds are to be provided in such a way as to assure "that decommissioning of the commercial WECS is completed as required." Article 18, Section 5, subd. E of the Goodhue County Zoning Ordinance.
> The proponent has not met its burden to establish by a preponderance of the evidence that there is good cause for the Commission to not apply the County Ordinance requirement as it pertains to pre-payment for decommissioning.

XVI. Stray Voltage Testing.

145. Section 6, subdivisions 1 through 3 of the County ordinance require that a commercial WECS shall offer to perform at least two pre-construction stray voltage tests at all registered feedlots within the proposed project boundary and within a one-mile radius beyond the proposed project boundary. The results of any test are to be provided to property owners, the MPUC, local utilities, and the County. If a registered feedlot owner within the project boundary subsequently has a stray voltage test performed, and it is found that the cause of the stray voltage is attributed to the commercial WECS project, the project owners are required to pay for all costs associated with the testing and correcting of the problem.

146. This issue was of particular concern to one member of the County's Planning Advisory Commission.[157] The County included the stray voltage provisions in the ordinance because:

> Whether or not this is a conclusively documented phenomenon, we felt a good baseline should [be] established by requiring pre-construction analysis to aid in evaluating the validity of potential future claims and prevent unnecessary conflict.[158]

Exception to Number 146:

> Stray voltage testing is required by Article 18, Section 6, of the Goodhue County Ordinances on Wind Energy Conversion Systems to establish a baseline for feedlots potentially impacted by the Goodhue Wind project's turbines. Although stray voltage is not a likely condition associated with present day wind farm generator system design, there is little documentation to disprove a relationship. Experts rely on their understanding of the design of properly operating and installed systems which utilize separation between wind turbine generators with their collector system of electric lines and farm electrical supply lines. However, AWA Goodhue Wind's expert witness, Mr. Pete Malamen, employed by

[157] Tr. 3B:10 (Wozniak).
[158] Ex. 24, Hanni Rebuttal at 2.

Consulting Engineers Group, admitted that, under some conditions, a "fault" in the system could allow current to enter the farm system wiring and potentially expose livestock to electrical shock.

"Q Okay. Page 5, part 3, Stray Voltage and Wind Projects. And you've just given your explanation of why you say there is no project – no problem with stray voltage on wind projects. Your testimony, I believe in there, in that section 3 with stray voltage, there's a section that says there are no ground currents generated in the wind farm collection system because of the type of transformers used at each turbine. Under normal operation, there is no intentional current in a ground wire, either when the turbine is not operating or when it's operating at its maximum generation. You qualify that statement, then, by saying under normal operation.
Are there conditions under abnormal operation where current may flow in the ground wire of a wind project?

A The only case that I'm aware of where current could flow in the ground wire of a wind project is during a fault condition, when there's an electrical fault.

Q What is an electrical fault condition?

A That would be a nonstandard condition, in my opinion. This is where there's a -- an electrical fault on a distribution system would be similar to an electrical fault in a home, where there's something that's failed and the protective device has to clear that fault.

Q So if you had a wind distribution system, a wind generation system, you could have a condition where the -- through a failure of the equipment the electricity travels on the ground system where it's not supposed to, then, right?

A Yes, but that condition would only last for a few tenths of a second.

Q Could it recur?

A Generally not. The protective -- these are all underground cables, the protective devices at the substations are generally set for a one -- what's referred to as a one-shot operation when you're dealing with underground cables.

Q Okay. You said generally not, does that mean it can't recur or that it could recur?

A I guess I'm not following your question.

Q Well, it sounds to me like you're qualifying your statement again by saying that sometimes it can happen more than once in a given situation. Is that correct?

A The fault would be cleared, like I said, within a few tenths of a second.

Q So the cow gets a shock and remembers it for a while. Does the cow get another shock, then?

A I'm not following your question, sir.

Q Well, I'm just asking if you can have the same situation occur from a wind generating system that you have in the system that you describe as causing stray voltage. And I think you told me under some conditions when

equipment malfunctions it can create a similar situation once in a while, right?

A Yes, a fault current would flow for a few tenths of a second and then -- until the protective device would clear.

Q So there would be current flowing for a short period of time. Now, would that be possible for that to recur in that system again?

A That same fault probably would not occur. There could be another fault down the road sometime.

Q Okay. But you just said again, and you qualified it, probably would not recur. Does that mean that it won't recur or that it could recur? So I get one shock one minute and five minutes later I get another shock from the same cause. Is that what you're saying is possible? Not probable, but possible?

A During a fault condition, the fault current which -- would flow for a very short period of time and a protective device would operate to clear the fault." Transcript Vol. 1, pgs. 209-212

Furthermore, the diagram submitted by Mr. Malamen as Exhibit 4 with attachment A establishes that there is a physical connection between the turbine generating system and on farm electrical supply system at the 69 KV line utilized by the wind project:

"Q Okay. Now, can you put your diagram back up there so that we can refer to that once more, please?

Now, correct me if I'm wrong, but it looks to me like you have drawn a diagram here which had the farm delivery system on the right, the wind generator system on the left, and you have them both connected to the same 69 kilovolt transmission line. Is that correct?

A That is correct.

Q So there is in your diagram a direct connection between -- potentially between these two systems, right?

A The connection is via the grounding conductors, and in electrical work, generally all the grounding conductors are always tied together. There is no connection on the phase-type conductors." Transcript Vol. 1, p. 212-213

It is a reasonable exercise of regulatory authority in a rural county where many hundreds of livestock feedlots already exist in the area where wind farms are proposed or may be considered for Goodhue County to act to protect its existing lawful businesses. In the approximate 12,000 acres area of the proposed project, there are many registered feedlots. The requirement for baseline stray voltage testing is not exclusionary, imposes relatively small costs compared to projected investment returns on potential developers and will aid greatly in providing comprehensive information for ongoing regulatory decision making and future planning. Even Mr. Kalass who is a participant in the AWA Goodhue Wind Project agreed at Vol. 1, pg. 251, lines 9-15 that potential "stray voltage" associated with the turbine project concerned him.

"Q Does it concern you that others had provisions written into their agreements for stray voltage testing?
A Does it -- that they have testing or just the concern that it could possibly happen?
Q The concern that it could happen.
A Yes, it's a concern."

147. The Commission has not previously included any requirements pertaining to stray voltage in site permits for wind farms because there is no scientific evidence that wind farms cause stray voltage.[159]

Exception to Number 147:

OES Comments are not authoritative in and of themselves. They only carry weight to the extent that they are supported by facts in the record.

148. "Stray voltage" is the term used to refer to neutral-to-earth voltage that appears on grounded surfaces in buildings, barns, and other structures. It is generally caused by electrical problems in the wiring on a farm or the interconnection between a farm and the local utility distribution system. It is condition that may exist between the neutral wire of a service entrance and grounded objects in buildings. At a farm served by single-phase electrical service, the grounded conductors are connected together at the service point (the pointed where the farm's grounding system is connected to the utility's grounding system). As electrical load at the farm increases, the return current to the substation increases, and, depending on the resistance of the ground, small voltages may be measured between a grounding conductor in a barn and an isolated ground rod. If an animal makes contact with metal that is connected to a ground conductor, a small current may flow through the animal from the ground to the piece of metal.[160]

149. Stray voltage is not associated with transmission lines. Wind projects have their own substations and transformers, and the collection system functions as a separately derived system. In addition, wind projects do not generate ground or neutral currents because of the type of transformer used at each turbine. Under normal operation, there is no intentional current in the ground wire. All current flows in the insulated underground conductors that connect the generators to the substation, which is connected to the transmission grid through dedicated 69 kV liens.[161]

150. Although an electrical fault could send current into the ground wire of a wind project for a few tenths of a second, until it is cleared,[162] there is no evidence that current would flow between grounding conductors in the manner required to create stray voltage.

[159] OES Comments (Dec. 20, 2010), Attachment 1 at 6.
[160] Ex. 4, Malamen Direct at 4; Ex. 24A at 2591-94.
[161] Ex. 4, Malamen Direct at 5-6; OES Comments (Dec. 20, 2010), Attachment 3 at 3.
[162] Tr. 1:209-12 (Malamen).

Exception to Number 150:

See Exception to Number 146 above.

151. There is no evidence that any wind farm operation has ever caused stray voltage problems of any sort.[163] No reports of stray voltage have been associated with any of Minnesota's existing wind farms.[164]

Exception to Number 151:

See Exception to Number 147 above.

152. There are approximately 150 feedlots within the project area and within one mile of the permit boundary.[165]

153. The requirement to conduct two pre-construction stray voltage tests could result in a delay of seven months and would add approximately $1.2 million to the cost of the project.[166]

154. The Applicant agreed to do pre- and post-construction stray voltage testing for three to five landowners who are participants in the project.[167]

155. In the absence of any evidence that stray voltage is associated with wind farm operations, there is good cause not to apply these ordinance provisions to the project.

Exception to Number 155:

The proponent has not met its burden to establish by a preponderance of the evidence that there is good cause for the Commission to not apply the County Ordinance requirement as it pertains to the requirement for stray voltage testing.

XVI. Miscellaneous Sections.

156. In **section 3, subdivision 6,** the County ordinance requires a commercial WECS to "provide proof of liability insurance covering the towers/project covering the lifespan of the project from the initial construction to final decommissioning."[168]

157. The Applicant does not object to this requirement, contending that the Power Purchase Agreements approved by the Commission and the Development Agreement negotiated

[163] Ex. 4, Malamen Direct at 6-7.
[164] OES Comments (Dec. 20, 2010), Attachment 3 at 3.
[165] Ex. 4, Malamen Direct at 8.
[166] Ex. 2, Robertson Direct at 10.
[167] Tr. 1:185-86 (Burdick).
[168] Ex. 24B, Art. 18, § 3, subd. 6.

with the County contain similar provisions that require the Applicant to obtain insurance and set certain limits.[169]

158. The Commission's general permit standards do not explicitly require liability insurance, but liability insurance is a requirement of the Power Purchase Agreements (the approval of which is a condition of the site permit). The ordinance could be applied without conflicting with any of the Commission's general permit standards.

159. In **section 5, subdivision 6,** the County's ordinance requires a commercial WECS to adhere to, but not exceed, FAA permits and regulations. It further provides that red strobe lights are preferred for night-time illumination to reduce impacts on migrating birds, and that red pulsating incandescent lights should be avoided.

160. The Commission's general wind permit standards provide that 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 or provinces. The required setbacks or other limitations must be determined in accordance with the requirements of the Minnesota Department of Transportation Division of Aviation and the Federal Aviation Administration (FAA). With regard to turbine lighting, towers shall be marked as required by the FAA and there shall be no lights on the towers other than what is required by the FAA.[170]

161. It is unclear whether the County ordinance requires something different than the FAA requires in terms of lighting the towers, but it appears that the ordinance is generally consistent with the Commission's permit standards and is not more stringent. The FAA has issued a Determination of NO Hazard for all 50 turbines in the current layout.[171] The ordinance could likely be applied without conflicting with the general wind permit standards.

162. In **section 5, subdivision 8,** the County's ordinance requires that all feeder lines equal to or less than 34.5 kV, installed as part of a WECS, shall be buried where reasonable feasible.

163. The Commission's general wind permit standards provide that feeder lines measuring 34.5 kV may be placed overhead or underground within public rights-of-way or on private land 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 responsible government unit. In all cases, the permittee is required to avoid placement of feeder lines in locations that may interfere with agricultural operations.[172]

Exception to Number 163:

[169] Ex. 2, Robertson Direct at 11.
[170] Ex. 21 Attachment A at 9, 13.
[171] Ex. 3, Burdick Direct at 23.
[172] Ex. 21, Attachment A at 10.

The Applicant is not a public utility and is only allowed to use public right of way where the responsible governmental body has ownership and grants permission to use public right of way.

164. The Applicant does not object to application of this ordinance provision, because it plans to bury all communication and feeder lines when reasonably feasible.[173]

165. The Commission's approach here is similar to that in negotiating setbacks to private rights-of-way—the owner of the right of way controls the decision whether the feeder line is to be overhead or underground. The proposed site permit provides that feeder lines may be overhead or underground, and that locations "shall be negotiated with the affected landowner(s)."

166. It is hard to say that the ordinance is "more stringent" than the Commission's general wind permit standard, because the ordinance requires "burial where reasonable feasible" and the Commission's standard requires the Applicant to do whatever the landowner wants to be done. These standards are virtually identical. It would not be necessary to apply the ordinance to achieve the same result.

167. **Section 5, subdivision 10,** of the County's ordinance requires a commercial WECS to provide a cash escrow or irrevocable letter of credit in an amount equal to 125% of the cost to repair anticipated damages to public infrastructure, including public roads and drainage systems as determined by the road authority. The funds would be held until the County issues a written release stating that the applicant has returned all routes to pre-construction condition.

168. The Commission's general wind permit standards require an applicant to "make satisfactory arrangements" for road use, access road intersections, maintenance and repair of damages, with the governmental jurisdiction having authority over each road. The permittee is to notify the permitting authority of such arrangements upon request.[174]

169. The Applicant has not objected to this provision of the ordinance. Again, there appears to be no conflict between the ordinance and the Commission's standard. The ordinance provision could be applied without conflicting with the Commission's general permit standards.

170. **Section 7, subdivisions 1 and 2,** require the applicant to provide an acoustic study that demonstrates the project will be compliant with State of Minnesota Noise Standards. The study shall include the estimated dB(A) levels at all receptors within one mile of the nearest turbine within a project area and shall include accumulated sound within the project.

171. The Commission's general wind permit standards require compliance with Minnesota Noise Standards at all residential receivers. There appears to be no conflict between the ordinance and the Commission's standards. The Applicant provided an acoustic study that demonstrates the project will comply with State of Minnesota Noise standards.

[173] Ex. 3, Burdick Direct at 23.
[174] Ex. 21, Attachment A at 11.

172. The definitions section of the ordinance contains a definition of a "Qualified Independent Acoustical Consultant" as a person with full membership in the Institute of Noise Control Engineers/INCE, or other demonstrated acoustical engineering certification. The Independent Qualified Acoustical Consultant can have no financial or other connection to a WECS developer or related company.[175]

173. It does not appear that the term Qualified Independent Acoustical Consultant is used elsewhere in the ordinance, so it is unclear why this term is defined. If the Commission were to apply the ordinance, this reference should be excluded because of its ambiguity.

Exception to Number 173:

The ordinance is not ambiguous and the Qualified Independent Acoustical Consultant is specifically defined. The requirement for an independent acoustical study is an attempt to assure objectivity in the results of the study. The proponent has not met its burden to establish by a preponderance of the evidence that there is good cause for the Commission to not apply the County Ordinance requirement as it pertains to the requirement for an independent Acoustical Consultant to conduct an acoustic study of the proposed LWECS.

174. In **section 9, subdivision 5,** the ordinance requires the applicant to "minimize or mitigate" interference with electromagnetic communications, such as radio, telephone, microwaves, or television signals caused by any WECS. In addition, it requires the applicant to notify all communication tower operators within two miles of the proposed WECS, and it further provides that no WECS shall be constructed so as to interfere with County or Minnesota Department of Transportation microwave transmissions.

175. The Commission's general wind permit standards for electromagnetic interference require the permittee to submit a plan for conducting an assessment of television signal reception and microwave signal patterns in the project area. The assessment shall be designed to provide data that can be sued to determine whether turbines and associated facilities are the cause of any disruption or interference that may occur after the turbines are placed in operation. The permittee "shall be responsible for alleviating any disruption or interference" caused by the turbines or any associated facilities.[176]

176. Because the Commission's standards regarding electromagnetic interference are more stringent than those contained in the ordinance, there would be good cause not to apply this ordinance provision.

Exception to Number 176:

The County Ordinance specifically regulates some areas not delineated in the state permit language and the state specifically lists other related fields. The two

[175] Ex. 24B, Art. 18, § 2, subd. 26.
[176] Ex. 21, Attachment A at 12.

sets of regulations must be read and applied together so that the more restrictive requirements apply in each case.

XVII. Motion to Strike.

177. On April 6, 2011, the Applicant moved to strike the brief filed by the Coalition for Sensible Siting on the basis that it misstates facts, contains assertions of fact that are unsupported by the record, and was not timely filed.

178. In response to the motion, the Coalition for Sensible Siting submitted a corrected post-hearing memorandum on April 8, 2011, indicating that the inaccuracies in the first brief were due to its inability to pay for a transcript and that the late filing (by approximately four hours) resulted in no prejudice to any party. Goodhue Wind Truth also filed a letter supporting the receipt of the corrected memorandum.

179. The filing was late, but it caused no prejudice to the Applicant. Accordingly, the motion to strike is granted in part and denied in part as follows: The post-hearing memorandum filed by the Coalition for Sensible Siting on April 1, 2011, is struck from the record; and the corrected post-hearing memorandum filed by the Coalition for Sensible Siting on April 8, 2011, is deemed to be timely received.

Based on the above Findings of Fact and Conclusions, the Administrative Law Judge makes the following:

RECOMMENDATIONS

The Administrative Law Judge recommends that the Commission take action in accordance with the above Findings of Fact and Conclusions.

Exception to Recommendations – Number XVIII:

Goodhue County respectfully requests that the Public Utilities Commission interpret and apply each and every subdivision of Minn. Stat. § 216F to:

1. Allow all counties, pursuant to Minn. Stat. § 216F.081, to adopt regulations to be considered and applied by the MNPUC in review site permit applications for all LWECS in each county.

2. Complete pending dockets and all necessary research and testimony to establish rules governing all aspects of LWECS siting.

3. To apply each and every aspect of Goodhue County's Article 18 of the Zoning Ordinance to evaluate the permit application currently submitted by AWA Goodhue Wind, LLC.

4. To require compliance or a duly authorized variance by AWA Goodhue Wind, LLC, to each and every aspect of Goodhue County's Article 18 of the Zoning Ordinance before a permit may be issued.

5. In the alternative, to deny a permit to AWA Goodhue Wind, LLC, if it fails to meet criteria of Goodhue County's Article 18 of the Zoning Ordinance.

6. Goodhue County respectfully requests an opportunity to present oral argument at the PUC hearing considering this permit application.

Dated: April 29, 2011

KATHLEEN D. SHEEHY
Administrative Law Judge

Exceptions Respectfully Submitted by:

Date: May 16, 2011.

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