

Report From Agency
BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

Wind Siting Rule

1-AC-231

Clearinghouse Rule 10-057

ORDER ADOPTING FINAL RULES

The Public Service Commission of Wisconsin proposes an order to create ch. PSC 128 relating to the siting of wind energy systems.

REPORT TO THE LEGISLATURE

The Report to the Legislature is set forth as Attachment A.

FISCAL ESTIMATE

Fiscal information is included as Attachment B.

EFFECTIVE DATE

This rule shall take effect on the first day of the first month following publication in the *Wisconsin Administrative Register*.

CONTACT PERSONS

Questions from the media may be directed to Teresa Weidemann-Smith at (608) 266-9600. Questions from small businesses may be directed to Anne Vandervort, Gas and Energy Division at (608) 266-5814 or anne.vandervort@wisconsin.gov. Other questions regarding this matter should be directed to docket coordinator Deborah Erwin, at (608) 266-3905

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or deborah.erwin@wisconsin.gov. Hearing or speech-impaired individuals may use the commission's TTY number; if calling from Wisconsin use (800) 251-8345, if calling from outside Wisconsin use (608) 267-1479.

The commission does not discriminate on the basis of disability in the provision of programs, services, or employment. Any person with a disability who needs accommodations to participate in this rulemaking or who needs to obtain this document in a different format should contact the docket coordinator listed above.

Dated at Madison, Wisconsin, August 31, 2010

By the Commission:

/ Sandra J. Paske /

Sandra J. Paske
Secretary to the Commission

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Attachments

REPORT TO THE LEGISLATURE

A. NEED FOR THE RULE

Portions of this rule are required, and portions are authorized, under 2009 Wisconsin Act 40. Over time, a patchwork of local wind system ordinances has developed, with varying requirements. The rule helps establish uniform standards about the construction and operation of wind energy systems in the state by specifying what political subdivisions can and cannot include in ordinances regulating wind energy systems. It also specifies requirements for applications, political subdivision review of an application and decommissioning of a wind energy system.

B. PLAIN LANGUAGE ANALYSIS

The analysis is set forth as Attachment A1.

C. TEXT OF THE RULE

The text of the rule is set forth as Attachment A2.

D. PUBLIC HEARING ATTENDEES

Public hearings were held in Fond du Lac on June 28, Tomah on June 29 and Madison on June 30, 2010. Written comments were accepted until noon July 7, 2010. The names of those who provided input as well as details about and responses to specific suggestions are in Attachment A3.

E. RESPONSE TO LEGISLATIVE COUNCIL REPORT

A copy of the Legislative Council's report, and responses to it, are included with this Report as Attachment A4.

F. FINAL REGULATORY FLEXIBILITY ANALYSIS

It is possible that this proposed rule may have an effect on small business, as defined in Wis. Stat. § 227.114 (1). The business entities this rule may affect are wind energy system developers, owners, or operators. The commission cannot estimate how many of these entities qualify as a small business.

Small businesses are more likely to be constructing small wind energy systems than other businesses. The rule establishes lesser requirements for small wind energy systems, defined as a system that has a capacity of 300 kilowatts or less and consists of one or more wind turbines each 100 kilowatts or less. These requirements are described in the analysis and rule, as well as the reporting, bookkeeping, and procedures applicable to a small business. The proposed rule does not impose any additional professional skill requirements.

PLAIN LANGUAGE ANALYSIS

A. Statutory Authority and Explanation of Authority

This rule is authorized under ss. 196.02 (1) and (3), 196.378 (4g) (b) to (d), and 227.11.

Section 227.11 authorizes agencies to promulgate administrative rules. Section 196.02 (1) authorizes the commission to do all things necessary and convenient to its jurisdiction. Section 196.02 (3) grants the commission specific authority to promulgate rules. Section 196.378 (4g) (b) to (d) directs the commission to promulgate rules about the siting of wind energy systems.

B. Statute Interpreted

This rule interprets ss. 66.0401 (3) to (6) and 196.378 (4g), Stats. These statutes deal with wind energy system site suitability testing, local processes for wind energy system applications for approval, commission review process, the applicability of wind siting ordinances, and the role of the commission and the Wind Siting Council.

C. Related Statutes or Rules

Section 196.491 is related because, although these rules specify the restrictions a political subdivision may impose on the construction and operation of a wind farm with an operating capacity of less than 100 megawatts, the commission is required to consider these requirements when determining whether to grant a certificate of public convenience and necessity (CPCN) to a wind energy system with an operating capacity of 100 megawatts or more.

D. Brief Summary of Rule

2009 Wisconsin Act 40 (Act 40) establishes statewide criteria for the installation or use of a wind energy system with a nominal operating capacity of less than 100 megawatts, and helps ensure consistent local procedures for the review and approval of such systems. Act 40 requires the commission to promulgate a variety of rules that specify the conditions a city, village, town, or county (political subdivision) may impose on such a system. It also requires the commission to develop rules on things such as what must be in an application and what records a political subdivision must keep. The commission is authorized to promulgate other rules related to such systems. If a political subdivision chooses to regulate such systems, its ordinances may not be more restrictive than the commission's rules. Appeals regarding the rules and their application may be made to the commission.

Currently, an electric generating facility with a nominal operating capacity of 100 megawatts or more may not be constructed unless the commission grants a certificate of public convenience and necessity. Act 40 requires the commission to consider the restrictions specified in these rules when determining whether to grant a certificate of public convenience and necessity.

The rule is broken down into five general categories: owner responsibilities, political subdivision procedure, complaints, commission procedure and small wind provisions.

A political subdivision may not place any restriction, either directly or in effect, that is not expressly permitted in this chapter or the statute. In order to regulate wind energy systems, a political subdivision must enact an ordinance.

OWNER RESPONSIBILITIES¹

A political subdivision may include any of the following in an ordinance if it chooses to have one, but it cannot have provisions in its ordinance that are more restrictive than those in the rule.

- Before filing an application to construct a wind energy system, an owner must provide notice to landowners within one mile of the system, all political subdivisions within which the system may be located, the Wisconsin department of natural resources (DNR), Wisconsin department of transportation (DOT), emergency first responders and air ambulance service providers in the area, the commission and the federal office of the deputy undersecretary of defense.
- Any wind easement, wind access easement, or landowner waiver that is entered into must be filed according to ch. 706, Stats. In this way, anyone wanting to buy the property will be aware of the easement or waiver. Certain provisions are required and others prohibited in wind easements and waivers.
- An owner must consider existing land uses and commercial enterprises on nonparticipating land within one-half mile of the proposed system site and must meet certain setback requirements described in the rule.
- A political subdivision may not set height or distance requirements that are more stringent than in this rule or certain requirements already in existence, such as Federal Aviation Administration (FAA) standards for public use airports. A wind energy system may not be built in the path of existing line-of-sight communications technologies.

¹ "Owner" is defined as including both the owner of a wind energy system and a developer until the wind energy system development is complete.

- The rule sets noise, shadow flicker, and television, radio and cell telephone interference criteria and provides for mitigation efforts. It also provides for stray voltage testing. Construction, electrical, operation and maintenance standards are set. Requirements for decommissioning are established, including requirements for site restoration and demonstrating financial ability to complete decommissioning.

POLITICAL SUBDIVISION PROCEDURE

Act 40 requires the commission to develop rules on things such as what must be in an application and what records a political subdivision must keep. These procedural and application-related provisions apply even when the political subdivision does not have an ordinance since, under Act 40, an application must be filed even when there is no ordinance.

- The rule specifies information that must be included in an application for approval by a political subdivision and provides procedures if the application is found to be incomplete. The rule allows for a joint application review process for projects proposed in more than one political subdivision. A reasonable application fee may be charged. On the same day an application is filed, a detailed notice must be sent to property owners and residents within one-half mile of participating properties. The rule requires that, if there is an ordinance, political subdivisions hold at least one public hearing and provide for written comments concerning the project. A political subdivision reviewing an application under a wind-siting ordinance must issue a written decision and keep a written record of its decision-making.
- The rule also specifies certain things that may, and may not, be included in a local ordinance or as a condition for project approval. It allows for modifications to approved systems and a monitoring committee to examine complaints and compliance.

COMPLAINTS

These provisions apply regardless of whether a political subdivision has an ordinance because they establish the process for making a complaint under the rules or under an ordinance adopted under the rules. This section specifies that complaints must be made first to a wind energy system owner, who has 30 days to provide an initial response to a complainant. A complaint not resolved within 45 days may be reviewed by a political subdivision, and the political subdivision's decision is appealable to the commission.

COMMISSION PROCEDURE

These provisions apply regardless of whether a political subdivision has an ordinance because they deal with application contents and process for appeals of a political subdivision's action (or lack thereof).

- This section specifies the process for commission review of political subdivision decisions and enforcement actions. It identifies what must be in a request for review and what the political subdivision must provide to the commission. Notice of the appeal must be provided, depending on the situation, to the political subdivision or the wind energy system owner. The commission may hold a hearing on the matter. The rule establishes timeframes for action if the commission remands a decision about whether an application is complete back to the political subdivision.

SMALL WIND ENERGY SYSTEMS

A political subdivision may include any of the following in an ordinance if it chooses to have one, but it cannot have provisions in its ordinance that are more restrictive than those in the rule.

- A small wind energy system is defined as a system that has a capacity of 300 kilowatts or less and consists of one or more wind turbines each 100 kilowatts or less. This section specifies the portions of the rule from which a small wind energy system is exempted and which portions are modified for a small system. The rule creates a different threshold of requirements for small wind to reduce administrative-type burdens for small wind energy systems, such as shortening the time frame for filing notice of intent to file an application, reducing reporting requirements, limiting notification and impact assessment requirements to adjacent properties. The rule also establishes lesser setback distances for small wind turbines.

E. Comparison with Existing or Proposed Federal Legislation

There are a number of federal laws that interact with the wind siting issues in this rulemaking, although the commission is not aware of any that deal with the specific requirements that a political subdivision may impose. A few of the federal laws that may interrelate include the National Environmental Policy Act, 42 U.S.C. 4321 *et. seq.*, the Endangered Species Act, 16 U.S.C. 1531–1544, and 14 C.F.R. Pt. 77, which requires a Federal Aviation Administration airspace study before constructing certain types of projects.

F. Comparison with Similar Rules in Surrounding States**ILLINOIS**

Illinois statutes provide that a municipality or county may regulate wind farms within its zoning jurisdiction and within the 1.5 mile radius surrounding its zoning jurisdiction. A county or municipality may not require a wind tower or other renewable energy system that is used exclusively by an end-user to be setback more than 1.1 times the height of the system from the end-user's property line. A setback requirement imposed by a municipality on a system may not be more restrictive.

There must be at least one public hearing not more than 30 days prior to a siting decision by the county board. Notice of the hearing must be published in a newspaper of general circulation in the county.

MICHIGAN

Michigan statutes require the Michigan Public Service Commission (Michigan PSC) to designate the area(s) of the state likely to be most productive of wind energy. In making its determination, the Michigan PSC is required to base its decision on the findings of a Wind Energy Resource Zone Board, a cost/benefit analysis and various other factors. At the same time, the Michigan PSC was to report to the legislature about the effect that local setback requirements and noise limitations might have on wind energy development, including any recommendations the Michigan PSC had for legislation. The Michigan PSC has issued both documents and, in its report to the legislature, recommended that setback requirements and noise limitations should continue to be decided at the local level where feasible so that the needs of local citizens can be appropriately considered. The Michigan PSC has a Renewable Energy Group which it intends to have sponsor periodic meetings to provide needed scientific information to decision-makers.

In 2008 the Energy Office, Michigan Department of Labor and Economic Growth, put out guidelines to help local governments, other than those in urban areas, develop siting guidelines. The guidelines contain recommended zoning language for local governments to use if they amend their zoning ordinance to address wind energy systems. They recommend different requirements for on-site use (generally small) and utility grid (generally large) wind energy systems.

On-site systems are systems designed to primarily serve the needs of a home, farm, or small business with tower heights of 20 meters or less.

For these systems, the guidelines establish a setback designed to protect neighbors in the event of a tower failure. The minimum recommended setback from the landowner's property lines is the height of the turbine, including the top of the blade in its vertical position. It is recommended that all parts of a wind energy system structure, including guy wire anchors, be setback the greater of ten feet or the zoning district setback distance from the landowner's property lines.

It is recommended that sound levels for on-site use systems not exceed 55 dB(A) at the property line closest to the wind energy system, except for short-term events such as utility outages or severe wind storms. It also recommended that if the ambient sound pressure level exceeds 55 dB(A), the standard shall be ambient dB(A) plus 5 dB(A).

Finally, the guidelines recommend that an on-site use wind energy system have both lightning protection, and automatic braking, governing, or a feathering system to prevent uncontrolled rotation or over speeding. If a tower is supported by guy wires, it is recommended that the wires be clearly visible to a height of at least six feet above the guy wire anchors and that the minimum vertical blade tip clearance from grade be 20 feet for a wind energy system employing a horizontal axis rotor.

Utility grid systems are systems designed to provide power to wholesale or retail customers using the electric grid, and on-site systems with tower heights over 20 meters.

For these systems, the guidelines establish a setback designed to protect neighbors in the event of a tower failure. The minimum recommended setback from the landowner's property lines is the greater of local zoning setbacks, road right of way setbacks, or the height of the turbine, including the top of the blade in its vertical position.

It is recommended that sound levels for utility grid systems not exceed 55 dB(A) at the property line closest to the wind energy system, except that this level may be exceeded for up to three minutes in any hour of the day. It also recommended that if the ambient sound pressure level exceeds 55 dB(A), the standard shall be ambient dB(A) plus 5 dB(A).

During the application process an owner must analyze shadow flicker impact and expected durations of the flicker from sunrise to sunset over the course of a year, as well as mitigation measures to eliminate or minimize these impacts. It must also submit a planning commission approved decommissioning plan and complaint resolution process.

No system can be installed in a way that causes interference unless the applicant provides a replacement signal to at least the pre-installation level. It also cannot be installed within the path of a line-of-sight communication technology unless doing so will produce only insignificant interference.

MINNESOTA

The Minnesota state statute defines a large wind system as 5,000 kilowatts or more. Applications for a permit to site such a system must be filed with the Minnesota Public Utility Commission (Minnesota PUC). The only exception to this general rule is that a county board may assume responsibility for processing permit applications for a large wind system with a capacity of less than 25,000 kilowatts. Under the administrative rule, a local government may

establish siting and construction requirements for a small system, meaning less than 5,000 kilowatts.

The statutes require that the Minnesota PUC establish general permit standards, including appropriate property line set-backs, governing site permits. These standards apply to permits issued by counties and to permits issued by the Minnesota PUC for large wind systems with a capacity of less than 25,000 kilowatts. The Minnesota PUC or a county may grant a variance from a general permit standard if the variance is found to be in the public interest.

The statute preempts all zoning, building, or land use rules, regulations, or ordinances adopted by local government units. However, a county may adopt standards for large wind systems that are more stringent than those in Minnesota PUC rules or permit standards. The Minnesota PUC, in considering a permit application for system in a county that has adopted more stringent standards, must consider and apply those more stringent standards, unless it finds good cause not to apply those standards.

The administrative rule contains detailed information about what must be in an application, including information about wind conditions at the proposed site, environmental factors, project design, construction and operation details, and decommissioning plans.

Setbacks developed by the Minnesota PUC include:

- Wind Access Buffer (setback from lands and/or wind rights lot under permittee’s control) – 3 rotor diameters (RD) (760 - 985 ft) on east-west axis and 5 RD (1280-1640ft) on north-south axis,
 - Homes – at least 500 ft and sufficient distance to meet state noise standards, and road rights-of-way - no closer than 250 feet from the edge of public road rights-of-way.
- Noise standards for residential and similar areas are:

Daytime		Nighttime	
L_{50}^2	L_{10}^3	L_{50}	L_{10}
60	65	50	55

If disruptions to television, microwave, telecommunication, navigation, or other facilities occur, the permittee must take whatever steps are necessary to correct the problem.

Prior to construction, the permittee must submit procedures for handling complaints. It must also prepare an emergency plan and register with the area 911 system. Finally, it must make arrangements for the use, maintenance and repair of roads that it will use.

² L_{50} means the sound level, expressed in dB(A), which is exceeded 50 percent of the time for a one hour survey, as measured by test procedures approved by the Minnesota PUC.

³ L_{10} means the sound level, expressed in dB(A), which is exceeded ten percent of the time for a one hour survey, as measured by test procedures approved by the Minnesota PUC.

Within 15 days after an application is accepted, notice must be provided to the county board, city council, township board, and each landowner within the system site. Notice must also be published in a newspaper of general circulation in the area. The Minnesota PUC must provide notice to those persons it knows are interested in the proposed project.

IOWA

In 2009, the Iowa General Assembly enacted a bill which directs the Iowa Utilities Board to establish and administer a small wind innovation zone program.

In March 2010, a model ordinance for establishing an expedited local government approval process for small wind generation systems (100 kilowatts or less nameplate capacity) was completed by the Iowa League of Cities, the Iowa State Association of Counties, the Iowa Environmental Council, the Iowa Wind Energy Association, and representatives from the utility industry.

The Iowa Utilities Board adopted rules to encourage the development of small wind generation systems across Iowa. The rules create a state program to simplify being, and encourage small wind generation systems to be, interconnected with electric utilities. This is done through the establishment of the small wind innovation zone designations in political subdivisions.

The rule states that to be designated as a small wind innovation zone, a political subdivision must either adopt or be within the boundaries of a local government that adopts the model ordinance. In addition, an area seeking designation as a small wind innovation zone must be served by an electric utility that uses the model interconnection agreements developed in a previous rule making. Providers that do not use the model documents are not eligible for the streamlined process.

Under the model ordinance, the setback is from all property lines, public right of ways, and above ground public utility lines. The setback distance must be at least 115% of the height above grade to the blade tip at its highest point. Towers can be closer to a property line if the abutting property owner grants written permission, provided that the tower installation complies with the other applicable setbacks. There are no specific height limitations, except as imposed by Federal Aviation Administration regulations.

A small wind energy system of greater than 20 kW can't be built unless the plans have been approved by an Iowa registered engineer as suitable for construction in any soil condition that exists in the state.

Sound produced by the small wind energy system under normal operating conditions, as measured at the property line: a) may not produce sound at a level that would constitute a

nuisance; b) must comply with any local ordinance regulating the volume of sound as a nuisance, if applicable. Sound levels may be exceeded during short-term events out of anyone's control.

If a wind turbine is inoperable for six consecutive months, the owner must be notified that they must, within six months of receiving the notice, restore the small wind energy system to operating condition. If the owner fails to restore the system to operating condition within the six month time frame, it is considered abandoned and the owner will be required, at owner's expense, to remove the small wind energy system.

Finally, the Iowa Utilities Board has exempted wind projects from plant certification requirements if the total amount of capacity per gathering line is 25 MW or less, or slightly over 25 MW.

WISCONSIN

All of the rules, including Wisconsin's, differentiate between small systems and larger systems.

In Minnesota, applications are generally filed with the Minnesota PUC, although political subdivisions may deal with applications for smaller systems. Political subdivisions can have more stringent requirements, and the Minnesota PUC must apply them unless there is good cause not to do so. In Ohio, applications are filed with a state siting board. In the other states, including Wisconsin, applications are generally filed with a local political subdivision.

Like some of the other states, the Wisconsin rule allows political subdivisions to require applicants to address issues such as shadow flicker and possible mitigation, road damage and possible mitigation, and signal interference and possible mitigation. It allows a political subdivision to establish a complaint process. Like Michigan, it addresses placement in the path of a line-of-sight communications technology, although Michigan allows it if interference would be insignificant.

All of the states except Michigan have some setback and noise requirements. In Michigan there are some guidelines, but not requirements, which are left to political subdivisions. Wisconsin's rule allows political subdivisions to impose noise requirements to a certain level, which is in the same range as that of other states. Setback requirements in the different states vary somewhat by what the setback is measured from, for example a property line or a residence. Most of Wisconsin's setbacks maximums are similar to those in several other states, and the setback maximums for nonparticipating residences and occupied community buildings are similar to setbacks established by Minnesota's wind access buffer requirements. This is not surprising as these distances are generally set to ensure that if a turbine or other facilities fell over they would not fall on a residence or other buildings.

Because Minnesota's PUC reviews certain applications, its rules contain more detail about what must be in applications. Ohio also has detailed application requirements, perhaps because the applications are filed with a state siting board. The Wisconsin requirements, while dealing with many of the same topics, are less detailed in the rules. The rules require the commission to publish additional detailed application filing criteria. The states where a decision is made by a political subdivision rather than a state entity do not have an appeal process like that in the Wisconsin law.

G. Data and Methodology

In creating this rule, the commission considered information from a wide variety of sources including:

- Advice and suggestions offered by members of the Wind Siting Council.
- Wind-siting regulations and guidelines from a variety of states, including those immediately adjacent to Wisconsin.
- A wide variety of local ordinances and community agreements throughout the state.
- Various white papers and best practices.
- Papers from a conference on wind-siting effects.
- Commission experience and precedent in wind siting decisions.
- Environmental impact statements prepared for wind projects in Wisconsin.
- Technical and scientific research and writing on wind siting.
- Presentations and lectures given on wind siting issues.
- Research by non-profit organizations on wind siting.
- Research by educational institutions on wind siting topics.
- Expert testimony on wind siting issues.
- Other state commissions' investigations and precedent on wind siting.
- Research and writing by other states' health institutions regarding wind siting.
- Consulting professionals with experience in public health in Wisconsin.
- Court cases on wind siting issues and political subdivision jurisdiction in Wisconsin to affect wind siting.
- Joint Development agreements between wind developers and political subdivisions.
- Lease agreements for wind development.
- Complaint resolution documentation from past complaints about wind projects.
- Wisconsin Public Service Commission Noise Measurement Protocols.
- Wisconsin Public Service Commission Stray Voltage Protocols.
- Wisconsin Public Service Commission Application Filing Requirements.
- Code of Federal Regulations regarding example emergency and safety regulations in gas pipeline safety regulations.
- Federal Aviation Administration processes, standards and provisions.

- Other Wisconsin agency processes regarding political subdivision decision-making, such as Department of Agriculture, Trade and Consumer Protection regulations regarding siting concentrated animal feeding operations.
- Research, writing and presentations by the federal government and national energy labs on wind siting issues.
- Public comments received in Commission dockets.
- Documents submitted by the public for consideration in this docket.

H. Effect on Small Business

The business entities this rule may affect are wind system developers, owners or operators and business owners that may wish to install small wind energy systems. The commission cannot estimate how many of these qualify as small businesses.

The rule allows a political subdivision to differentiate between large projects and small projects (systems that have a capacity of 300 kilowatts or less and consist of one or more wind turbines each 100 kilowatts or less), in part to make it easier for small businesses to install small systems and in part because it seems likely that a small wind energy development company would not be taking on a very large project. The choice of whether to regulate wind energy systems and approval decisions are left in the hands of political subdivisions, although their standards cannot be more restrictive than those in the rule. As a result, some political subdivisions may make additional efforts to ease any burdens on small businesses. Some of the possible differences contained in this rule for owners of small systems are:

- Lessened notice requirements.
- Lessened reporting requirements.
- No advance emergency evacuation plan required.
- The setbacks distances are less.

For small wind energy systems a political subdivision does not have to hold a hearing. Further, the rule allows a political subdivision to set a fee based on the size and complexity of the system.

I. Agency Contact Person

Questions regarding this rule should be directed to Deborah Erwin, Docket Coordinator, Gas and Energy Division, at (608) 266-3905 or deborah.erwin@wisconsin.gov. Small business questions may be directed to Anne Vandervort, Gas and Energy Division, at (608) 266-5814 or anne.vandervort@wisconsin.gov. Media questions should be directed to Teresa Weidemann-Smith, Governmental and Public Affairs at (608) 266-9600. Hearing or speech-impaired

individuals may also use the commission's TTY number; if calling from Wisconsin use (800) 251-8345, if calling from outside Wisconsin use (608) 267-1479.

J. Accommodation

The commission does not discriminate on the basis of disability in the provision of programs, services, or employment. Any person with a disability who needs accommodations to participate in this proceeding or who needs to obtain this document in a different format should contact the docket coordinator listed above.

TEXT OF THE RULES

SECTION 1. Item vm., Table 3. of chapter PSC 4 is created to read:

PSC 4 Item vm., Table 3. A docket opened to review a petition under s. PSC 128.41.

SECTION 2. Chapter PSC 128 is created to read:

CHAPTER PSC 128

WIND ENERGY SYSTEMS

Subchapter I – General

Subchapter II – Owner Requirements

Subchapter III – Political Subdivision Procedure

Subchapter IV – Complaints

Subchapter V – Commission Procedure

Subchapter VI – Small Wind Energy Systems

Subchapter I – General

PSC 128.01 Definitions. In this chapter:

(1) “Commercial communications” includes communications used by government and military entities for emergency purposes, licensed amateur radio service, and non-emergency communications used by agricultural, business, government, and military entities including aviation radar, commercial mobile radio service, fixed wireless service, global positioning, line-of-sight, microwave, personal communications service, weather radar, and wireless internet service.

(2) “Commission” means the public service commission.

(4) “Decommissioning” means removal of all of the following:

(a) The above ground portion of a wind energy system, including wind turbines and related facilities, except for access roads if removal has been waived by the property owner.

(b) All below ground facilities, except the following:

1. Underground collector circuit facilities.

2. Those portions of concrete structures 4 feet or more below grade.

(5) “DNR” means the Wisconsin department of natural resources.

(6) “Maximum blade tip height” means the nominal hub height plus the nominal blade length of a wind turbine, as listed in the wind turbine specifications provided by the wind turbine manufacturer. If not listed in the wind turbine specifications, “maximum blade tip height” means the actual hub height plus the blade length.

(7) “Nameplate capacity” means the nominal generating capacity of a wind energy system, as listed in the wind turbine specifications provided by the wind turbine manufacturer.

(8) “Nonparticipating property” means real property that is not a participating property.

(9) “Nonparticipating residence” means a residence located on nonparticipating property.

(10) “Occupied community building” means a school, church or similar place of worship, daycare facility or public library.

(12) “Owner” means:

(a) A person with a direct ownership interest in a wind energy system, regardless of whether the person was involved in acquiring the necessary rights, permits and approvals or otherwise planning for the construction and operation of a wind energy system.

(b) At the time a wind energy system is being developed, a person who is acting as a wind energy system developer by acquiring the necessary rights, permits and approvals for or by planning for the construction and operation of a wind energy system, regardless of whether the person will own or operate the wind energy system.

(13) “Participating property” means any of the following:

(a) A turbine host property.

(b) Real property that is the subject of an agreement that does all of the following:

1. Provides for the payment of monetary compensation to the landowner from an owner regardless of whether any part of a wind energy system is constructed on the property.
2. Specifies in writing any waiver of a requirement or right under this chapter and that the landowner’s acceptance of payment establishes the landowner’s property as a participating property.

(14) “Participating residence” means a residence located on participating property.

(15) “Personal communications” includes wireless telecommunications, personal communications service, radio, television, wireless internet service, and other systems used for personal use purposes.

(16) “Political subdivision” has the meaning given in s. 66.0401 (1e) (c), Stats.

(17) “Residence” means an occupied primary or secondary personal residence including a manufactured home as defined in s. 101.91 (2), Stats., a hospital, community-based residential facility, residential care apartment complex or similar facility, or a nursing home. “Residence” includes a temporarily unoccupied primary or secondary personal residence. “Residence” does not include any of the following:

(a) A recreational vehicle as defined in s. 340.01 (48r), Stats., notwithstanding the length of the vehicle.

(b) A camping trailer as defined in s. 340.01 (6m), Stats.

(c) A permanently abandoned personal residence.

(19) “Shadow flicker” means a pattern of moving shadows cast on a residence or an occupied community building caused by sunlight shining through moving wind turbine blades resulting in alternating changes in light intensity.

(20) “Small wind energy system” means a wind energy system that has a total installed nameplate capacity of 300 kilowatts or less and that consists of individual wind turbines that have an installed nameplate capacity of not more than 100 kilowatts.

(21) “Turbine host property” means real property on which at least one wind turbine is located.

(22) “Wind access easement” means a written document that creates a legal interest in real property that restricts the use of the property to avoid interference with the wind resource on another property.

(23) “Wind energy system” has the meaning given in s. 66.0403 (1) (m), Stats., and is used to convert wind energy to electrical energy.

(24) “Wind energy system easement” means a written document that creates a legal interest in real property that permits an owner to place, construct or operate a wind turbine or other wind energy system facility on the property.

(25) “Wind energy system emergency” means a condition or situation at a wind energy system that presents a significant threat of physical danger to human life or a significant threat to property or a natural event that causes damage to wind energy system facilities.

(26) “Wind energy system facility” means any component of a wind energy system, such as a wind turbine, collector circuit, access road, electric system interconnection facility or operation and maintenance facility.

(27) “Wind energy system lease” means a written agreement between a landowner and an owner that establishes the terms and conditions associated with the placement, construction or operation of a wind turbine or other wind energy system facility on a landowner’s property.

PSC 128.02 Applicability. (1) POLITICAL SUBDIVISION APPLICATIONS. (a) Except as provided in par. (b), this chapter applies to a wind energy system that does not require review by the commission under either s. 196.49 or 196.491, Stats.

(b) This chapter does not apply to any of the following:

1. A wind energy system for which construction began before the effective date of this chapter ...[LRB inserts date].
2. A wind energy system placed in operation before the effective date of this chapter ... [LRB inserts date].
3. A wind energy system approved by a political subdivision before the effective date of this chapter ... [LRB inserts date].
4. A wind energy system proposed by an owner in an application filed with a political subdivision before the effective date of this chapter ... [LRB inserts date]

(3) COMMISSION APPLICATIONS. (a) The commission shall consider whether the installation or use of a wind energy system is consistent with the standards specified in this chapter when reviewing an application under s. 196.491(3) (d), Stats., filed on or after the effective date of this chapter...[LRB inserts date].

(b) The commission may consider whether the installation or use of a wind energy system is consistent with the standards specified in this chapter when reviewing an application under s. 196.49, Stats., filed on or after the effective date of this chapter...[LRB inserts date].

(4) INDIVIDUAL CONSIDERATION. Nothing in this chapter shall preclude the commission from giving individual consideration to exceptional or unusual situations and applying requirements to an individual wind energy system that may be lesser, greater, or different from those provided in this chapter.

PSC 128.03 Political subdivision authority. A political subdivision may not place any restriction, either directly or in effect, on the installation or use of a wind energy system except by adopting an ordinance that complies with this chapter and s. 66.0401, Stats., and is not more restrictive than this chapter.

PSC 128.04 Enforcement. (1) POLITICAL SUBDIVISIONS. A political subdivision shall be responsible for enforcing its wind energy system ordinance and permit provisions.

(2) COMMISSION. The commission shall enforce its rules and orders under this chapter in the manner prescribed in s. 196.66, Stats., or by such other means as provided in the statutes or administrative code.

Subchapter II – Owner Requirements

PSC 128.10 Incorporating owner requirements into local ordinances. (1) ORDINANCES WITH ALL THE OWNER REQUIREMENTS. A political subdivision may enact an ordinance that incorporates all the owner requirements specified in this subchapter, but may not enact an

ordinance whose requirements on the installation or use of a wind energy system are more restrictive than specified in this subchapter.

(2) ORDINANCES WITH LESS RESTRICTIVE OWNER REQUIREMENTS. Except as provided in sub. (4), a political subdivision may enact an ordinance whose requirements on the installation or use of a wind energy system are less restrictive than specified in this subchapter.

(3) NO ORDINANCE. Except as provided in sub. (4), if a political subdivision does not enact an ordinance establishing requirements on the installation or use of a wind energy system, this subchapter does not apply within the political subdivision.

(4) MANDATORY REQUIREMENTS. (a) Section PSC 128.105 applies to every owner of a wind energy system, regardless of the political subdivision in which the wind energy system is located and regardless of the contents of a political subdivision's ordinance or the lack of an ordinance.

(b) Section PSC 128.13 (2) (a) applies to every political subdivision, regardless of the contents of its ordinance or the lack of an ordinance.

(c) Section PSC 128.19 applies to every owner of a wind energy system of at least one megawatt, regardless of the political subdivision in which the wind energy system is located and regardless of the contents of a political subdivision's ordinance or the lack of an ordinance.

(5) SMALL WIND ENERGY SYSTEMS. For a small wind energy system, this subchapter applies as provided in ss. PSC 128.60 and 128.61.

PSC 128.105 Development of a wind energy system; notice requirements. (1)

PRE-APPLICATION NOTICE. At least 90 days before an owner files an application to

construct a wind energy system, an owner shall use commercially reasonable methods to provide written notice of the planned wind energy system to all of the following:

- (a) Landowners within one mile of a planned wind turbine host property.
- (b) Political subdivisions within which the wind energy system may be located.
- (c) Emergency first responders and air ambulance service providers serving a political subdivision within which the wind energy system may be located.
- (d) The Wisconsin department of transportation.
- (e) The commission.
- (f) The DNR.
- (g) The Wisconsin department of agriculture, trade and consumer protection.
- (h) The office of the deputy undersecretary of the U.S. department of defense.

(1m) ADDITIONAL PRE-APPLICATION NOTICE TO COMMISSION. At least 180 days before filing an application to construct a wind turbine with a maximum blade tip height exceeding 600 feet, or a wind energy system in those portions of Lake Michigan or Lake Superior that are within the jurisdiction of the state, the owner shall provide written notice of the planned wind energy system to the commission.

(2) PRE-APPLICATION NOTICE REQUIREMENTS. The owner shall include all of the following in a notice under sub. (1) or (1m):

- (a) A complete description of the wind energy system, including the number and size of the planned wind turbines.
- (b) A map showing the planned location of all wind energy system facilities.
- (c) Contact information for the owner.

(d) A list of all potential permits or approvals the owner anticipates may be necessary for construction of the wind energy system.

(e) Whether the owner is requesting a joint application review process under s. PSC 128.30 (7) and the name of each political subdivision that may participate in the joint review process.

PSC 128.11 Real property provisions. (1) EASEMENT RECORDING REQUIRED. A wind energy system easement or wind access easement shall be recorded under ch. 706, Stats. A wind energy system easement or wind access easement shall include the term of the easement and a full legal description of the property subject to the easement.

(2) WIND LEASE AND WAIVER PROVISIONS. A wind energy system lease and any waiver under s. PSC 128.14 (5) or 128.15 (4) shall hold harmless and indemnify the real property owner for all of the following:

(a) Any violation of federal, state or local law by the owner of the wind energy system.

(b) Any damages or bodily injury caused by the construction, operation or decommissioning of the wind energy system.

PSC 128.12 Existing property uses. An owner shall make reasonable efforts to ascertain and accommodate any land use or commercial enterprise located on a nonparticipating property within 0.5 mile of a proposed wind turbine site if the land use or commercial enterprise exists when the owner gives notice under s. PSC 128.105 (1), or if complete publicly-available plans for construction are on file with a political subdivision within 30 days of the date the owner gives notice under s. PSC 128.105 (1).

PSC 128.13 Siting criteria. (1) SETBACK DISTANCE AND HEIGHT REQUIREMENTS. (a)

An owner shall design and construct a wind energy system using the wind turbine setback distances shown in Table 1.

Table 1	
Setback Description	Setback Distance
Occupied Community Buildings	3.1 times the maximum blade tip height
Participating Residences	1.1 times the maximum blade tip height
Nonparticipating Residences	3.1 times the maximum blade tip height
Participating Property Lines	None
Nonparticipating Property Lines	1.1 times the maximum blade tip height
Public Road Right-of-Way	1.1 times the maximum blade tip height
Overhead Communication and Electric Transmission or Distribution Lines - Not including utility service lines to individual houses or outbuildings	1.1 times the maximum blade tip height
Overhead Utility Service Lines - Lines to individual houses or outbuildings	None

(b) An owner shall measure wind turbine setback distances as a straight line from the vertical centerline of the wind turbine tower to the nearest point on the permanent foundation of a building or residence or to the nearest point on the property line or feature, as applicable.

(c) An owner shall work with a political subdivision and owners of participating and nonparticipating properties to site wind turbines to minimize individual hardships.

(d) The owner of a nonparticipating residence or occupied community building may waive the applicable wind turbine setback distances in Table 1 for those structures to a minimum setback distance of 1.1 times the maximum blade tip height. The owner of a nonparticipating property may waive the applicable wind turbine setback distance in Table 1 from a nonparticipating property line.

(2) POLITICAL SUBDIVISION CRITERIA. (a) A political subdivision may not establish long-term land use planning requirements or practices that preclude the construction of a particular type, or any type, of wind turbine or wind energy system within the political subdivision's jurisdiction, except as provided in s. 66.0401 (4) (f) 2., Stats.

(b) A political subdivision may not set height or setback distance limitations for a wind turbine near a public use airport or heliport that are more restrictive than existing airport and airport approach protection provisions under ss. 114.135 and 114.136, Stats. If no provisions have been established for public use airports or heliports under s. 114.135 or 114.136, Stats., the political subdivision may adopt wind turbine height or setback distance provisions that are based on, but not more restrictive than, the federal aviation administration obstruction standards in 14 CFR Part 77.

(c) A political subdivision may set height or setback distance limitations for wind turbines near a private heliport at a medical facility used for air ambulance service that are based on, but not more restrictive than, federal aviation administration obstruction standards that apply to public use heliports.

(d) A political subdivision may not set height or setback distance limitations for a wind turbine near a private use airport or heliport except as provided in par. (c).

PSC 128.14 Noise Criteria. (1) DEFINITIONS. In this section, nighttime hours are the hours beginning at 10:00 p.m. and ending at 6:00 a.m. daily and daytime hours are the hours beginning at 6:00 a.m. and ending at 10:00 p.m. daily.

(2) PLANNING. (a) The noise limits in this section apply at the outside wall of a nonparticipating residence or occupied community building that exists when the owner gives notice under s. PSC 128.105 (1) or for which complete publicly-available plans for construction are on file with a political subdivision within 30 days of the date on which the owner gives notice under s. PSC 128.105 (1).

(b) An owner shall design the proposed wind energy system to minimize noise at a residence or occupied community building to the extent reasonably practicable.

(c) An owner shall design a wind energy system to comply with the noise standards in this section under planned operating conditions.

(3) NOISE LIMITS. (a) Except as provided in par. (b), sub. (4) (c) and sub. (5), an owner shall operate the wind energy system so that the noise attributable to the wind energy system does not exceed 50 dBA during daytime hours and 45 dBA during nighttime hours.

(b) In the event audible noise due to wind energy system operations contains a steady pure tone, such as a whine, whistle, screech, or hum, the owner shall promptly take corrective action to permanently eliminate the noise. This paragraph does not apply to sound the wind energy system produces under normal operating conditions.

(4) COMPLIANCE. (a) If an owner uses sound level measurements to evaluate compliance with this section at a nonparticipating residence or occupied community building, those measurements shall be made as near as possible to the outside wall nearest to the closest wind turbine, or at an

alternate wall as specified by the owner of the nonparticipating residence or occupied community building. The owner may take additional measurements to evaluate compliance in addition to those specified by this section.

(b) Upon receipt of a complaint regarding a violation of the noise standards in sub. (3) (a), an owner shall test for compliance with the noise limits in sub. (3) (a). A political subdivision or monitoring committee established under s. PSC 128.41 may not require additional testing to show compliance with sub. (3) (a) if the owner has provided the results of an accurate test conducted within 2 years of the date of the complaint showing that the wind energy system is in compliance with sub. (3) (a) at the location relating to the complaint.

(c) Methods available for the owner to comply with sub. (3) shall include operational curtailment of one or more wind turbines. Upon receipt of a complaint about a noise under sub. (3) (b), the owner shall use operational curtailment to eliminate the noise until the owner permanently corrects the problem.

(d) An owner shall evaluate compliance with sub. (3) (a) as part of pre- and post-construction noise studies. An owner shall conduct pre- and post-construction noise studies under the most current version of the noise measurement protocol as described in s. PSC 128.50 (2).

(5) WAIVER. Upon request by an owner of a wind energy system, an owner of an affected nonparticipating residence or occupied community building may relieve the owner of the wind energy system of the requirement to meet any of the noise limits in this section at the affected residence or occupied community building by written contract with the wind energy system owner. Unless otherwise provided in a contract signed by an owner of an affected nonparticipating residence or occupied community building, a waiver by an owner of an affected

nonparticipating residence or occupied community building is an encumbrance on the real property, runs with the land until the wind energy system is decommissioned, and shall be recorded under ch. 706, Stats.

(6) NOTIFICATION. (a) Before entering into a contract under sub. (5), an owner of a wind energy system shall provide written notice of the requirements of this section to the owner of an affected nonparticipating residence or occupied community building.

(b) Before the initial operation of the wind energy system, an owner of a wind energy system shall provide notice of the requirements of this section to an owner of a nonparticipating residence or occupied community building within 0.5 mile of a constructed wind turbine that has not entered into a contract under sub. (5).

PSC 128.15 Shadow flicker. **(1) PLANNING.** (a) The shadow flicker requirements in this section apply to a nonparticipating residence or occupied community building that exists when the owner gives notice under s. PSC 128.105 (1) or for which complete publicly-available plans for construction are on file with a political subdivision within 30 days of the date on which the owner gives notice under s. PSC 128.105 (1).

(b) An owner shall design the proposed wind energy system to minimize shadow flicker at a residence or occupied community building to the extent reasonably practicable.

(c) An owner shall use shadow flicker computer modeling to estimate the amount of shadow flicker anticipated to be caused by a wind energy system and shall design the wind energy system so that computer modeling indicates that no nonparticipating residence or occupied community building will experience more than 30 hours per year of shadow flicker under planned operating conditions.

(2) SHADOW FLICKER LIMITS. An owner shall operate the wind energy system in a manner that does not cause more than 30 hours per year of shadow flicker at a nonparticipating residence or occupied community building. If a nonparticipating residence or occupied community building experiences more than 30 hours per year of shadow flicker under the wind energy system's normal operating conditions, the owner shall use operational curtailment to comply with this subsection.

(3) SHADOW FLICKER MITIGATION. (a) An owner of a wind energy system shall work with an owner of a nonparticipating residence or occupied community building to mitigate the effects of shadow flicker to the extent reasonably practicable.

(b) An owner shall provide reasonable shadow flicker mitigation at the owner's expense for a nonparticipating residence or occupied community building experiencing 20 hours or more per year of shadow flicker.

(c) An owner shall model shadow flicker and a nonparticipating residence or occupied community building is eligible for mitigation if computer modeling shows that shadow flicker at the nonparticipating residence or occupied community building will be 20 hours or more per year. An owner of a nonparticipating residence or occupied community building is not required to document the actual hours per year of shadow flicker if modeling indicates the nonparticipating residence or occupied community building is eligible for mitigation. A nonparticipating residence or occupied community building that experiences 20 hours or more per year of shadow flicker based on records kept by the resident of a nonparticipating residence or the occupant of an occupied community building shall also be eligible for mitigation.

(d) An owner may provide shadow flicker mitigation for any residence or occupied community building in addition to the mitigation required under par. (b).

(e) The requirement under par. (b) to mitigate shadow flicker applies when the owner receives a complaint or request for mitigation regarding shadow flicker for an eligible nonparticipating residence or occupied community building. If shadow flicker mitigation is required, the owner of the wind energy system shall allow the owner of the nonparticipating residence or occupied community building to choose a preferred reasonable mitigation technique, including installation of blinds or plantings at the wind energy system owner's expense.

(4) WAIVER. Upon request by an owner of a wind energy system, an owner of an affected nonparticipating residence or occupied community building may relieve the wind energy system owner of a requirement under sub. (2) or (3) (b) at the affected nonparticipating residence or occupied community building by written contract with the wind energy system owner. Unless otherwise provided in a contract signed by an owner of an affected nonparticipating residence or occupied community building, a waiver by an owner of an affected nonparticipating residence or occupied community building is an encumbrance on the real property and runs with the land until the wind energy system is decommissioned, and shall be recorded under ch. 706, Stats.

(5) NOTIFICATION. (a) Before entering into a contract under sub. (4), a wind energy system owner shall provide notice of the requirements of this section to individual owners of an affected nonparticipating residence or occupied community building.

(b) Before the initial operation of the wind energy system, a wind energy system owner shall provide notice of the requirements of this section to an owner of a nonparticipating residence or

occupied community building within 0.5 mile of a constructed wind turbine that has not entered into a contract under sub. (4).

PSC 128.16 Signal interference. (1) PLANNING. (a) Except as provided in sub. (4) (b), the signal interference requirements in this section apply to commercial communications and personal communications in use when the wind energy system begins operation.

(b) A owner shall use reasonable efforts to avoid causing interference with commercial communications and personal communications to the extent practicable.

(c) An owner may not construct wind energy system facilities within existing line-of-sight communication paths that are used by government or military entities to provide services essential to protect public safety. A political subdivision may require an owner to provide information showing that wind turbines and other wind energy system facilities will be in compliance with this paragraph.

(2) COMMERCIAL COMMUNICATIONS INTERFERENCE MITIGATION. An owner shall use reasonable and commercially available technology to mitigate interference caused by a wind energy system with commercial communications in use when a wind energy system begins operation. Before implementing mitigation measures, the owner shall consult with affected parties regarding the preferred mitigation solution for commercial communications interference problems. Except as provided in sub. (4), an owner shall mitigate commercial communications interference caused by the wind energy system by making the affected party's preferred reasonable mitigation solution effective until either the wind energy system is decommissioned or the communication is no longer in use, whichever is earlier.

(3) PERSONAL COMMUNICATIONS INTERFERENCE MITIGATION. (a) An owner shall use reasonable and commercially available technology to mitigate interference with personal communications in use when a wind energy system begins operation caused by a wind energy system. A political subdivision may require an owner to use reasonable and commercially available technology to mitigate interference with personal communications that were not in use when the wind energy system began commercial operation, if a wind energy system is causing the interference and the interference occurs at a location at least 0.5 mile from a wind turbine.

(b) Before implementing mitigation measures, the owner shall consult with affected parties regarding the preferred mitigation solution for personal communications interference problems. Except as provided in sub. (4), an owner shall mitigate personal communications interference caused by the wind energy system by making the affected party's preferred reasonable mitigation solution effective until either the wind energy system is decommissioned or the communication is no longer in use, whichever is earlier.

(4) MITIGATION PROTOCOL. A political subdivision may, under a protocol established under s. PSC 128.50 (2), require an owner to implement a new mitigation solution that becomes commercially available before the wind energy system is decommissioned to address interference for which mitigation is required under sub. (2) or (3) and for which the original mitigation solution implemented is only partially effective.

PSC 128.17 Stray voltage. (1) TESTING REQUIRED. (a) An owner shall work with the local electric distribution company to test for stray voltage at all dairy and confined animal operations within 0.5 mile of a wind energy system facility pursuant to the stray voltage protocol established by the commission before any wind energy system construction activity that may

interfere with testing commences and again after construction of the wind energy system is completed, except as otherwise specified by commission staff under par. (b).

(b) Before any testing under par. (a) begins, an owner shall work with commission staff to determine the manner in which stray voltage testing will be conducted and on which properties. The electric distribution company serving a dairy or confined animal operation where testing is required under par. (a) shall conduct or arrange to conduct all required testing at the expense of the owner.

(2) RESULTS OF TESTING. An owner and the electric distribution company shall provide to commission staff the results of all stray voltage testing in writing.

(3) REQUIREMENT TO RECTIFY PROBLEMS. An owner shall work with the electric distribution company and farm owner to rectify any stray voltage problems attributable to the construction and operation of the wind energy system, in compliance with the commission's stray voltage protocol.

PSC 128.18 Construction and operation. (1) PHYSICAL CHARACTERISTICS. (a)

An owner may not display advertising material or signage other than warnings, equipment information, or indicia of ownership on a wind turbine. An owner may not attach any flag, decorative sign, streamers, pennants, ribbons, spinners, fluttering, or revolving devices to a wind turbine. An owner may attach a safety feature or wind monitoring device to a wind turbine.

(b) An owner shall ensure that a wind turbine has a conventional or unobtrusive finish.

(c) An owner shall install lighting at a wind energy system that complies with standards established by the federal aviation administration. A political subdivision may not establish lighting requirements for a wind energy system that conflict with standards established by the

federal aviation administration. A political subdivision may require use of shielding or control systems approved by the federal aviation administration to reduce visibility of lighting to individuals on the ground.

(d) An owner shall take appropriate measures to ensure that a wind turbine is not readily climbable except by authorized personnel.

(e) An owner shall ensure that all wind turbine access doors and electrical equipment are locked when authorized personnel are not present.

(f) An owner shall place appropriate warning signage on or at the base of each wind turbine.

(g) An owner shall post and maintain up-to-date signs containing a 24-hour emergency contact telephone number, information identifying the owner, and sufficient information to identify the location of the sign within the wind energy system. An owner shall post these signs at every intersection of a wind energy system access road with a public road and at each wind turbine location.

(h) An owner shall clearly mark guy wires and supports for a wind energy system, meteorological tower or other device for measuring wind speeds so that the wires and supports are visible to low flying aircraft under fair weather conditions.

(2) ELECTRICAL STANDARDS. (a) An owner shall construct, maintain, and operate collector circuit facilities in a manner that complies with the national electrical safety code and ch. PSC 114 and shall construct, maintain, and operate all wind energy system facilities in a manner that complies with the national electrical code.

(b) An owner shall construct collector circuit facilities for a wind energy system underground to the extent practicable.

(c) An owner shall establish an inspection schedule for all overhead collector circuits to ensure that third-party facilities, including cable television and telecommunications cables, are not attached or bonded to overhead collector circuit grounding. If third-party facilities are found attached to the overhead collector facilities, the owner shall ensure that the third-party facilities are promptly removed.

(3) CONSTRUCTION, OPERATION, AND MAINTENANCE STANDARDS. (a) An owner shall construct, operate, repair, maintain and replace wind energy system facilities as needed to keep the wind energy system in good repair and operating condition and in a manner that protects individuals from injury.

(b) Except for the area physically occupied by the wind energy system facilities, an owner shall restore the topography, soils and vegetation of the project area to original condition after construction is complete, unless otherwise provided in a contract signed by an affected landowner, considering any modifications needed to comply with DNR requirements.

(c) An owner shall carry general liability insurance relating to claims for property damage or bodily injury arising from the construction, operation or decommissioning of the wind energy system and shall include turbine host property owners as additional insured persons on the policy.

(4) EMERGENCY PROCEDURES. (a) An owner shall notify a political subdivision of the occurrence and nature of a wind energy system emergency within 24 hours of the wind energy system emergency.

(b) An owner shall establish and maintain liaison with a political subdivision and with fire, police, and other appropriate first responders serving the wind energy system to create effective emergency plans that include all of the following:

1. A list of the types of wind energy system emergencies that require notification under par. (a).
2. Current emergency contact information for first responders and for the wind energy system owner, including names and phone numbers.
3. Procedures for handling different types of wind energy system emergencies, including written procedures that provide for shutting down the wind energy system or a portion of the system as appropriate.
4. Duties and responsibilities of the owner and of first responders in the event of a wind energy system emergency.
5. An emergency evacuation plan for the area within 0.5 mile of any wind energy system facility, including the location of alternate landing zones for emergency services aircraft.

(c) The owner shall review the emergency plan at least annually in collaboration with fire, police and other appropriate first responders to update and improve the emergency plan as needed.

(d) The owner shall distribute current copies of the emergency plan to the political subdivision and fire, police and other appropriate first responders as identified by the political subdivision.

(e) A political subdivision may require the owner to provide annual training for fire, police and other appropriate first responders regarding responding to a wind energy system emergency until the wind energy system has been decommissioned.

(f) An owner of a wind energy system shall do all of the following:

1. Furnish its operator, supervisors and employees who are responsible for emergency action a copy of the current edition of the emergency procedures established under this subsection to ensure compliance with those procedures.
2. Train the appropriate operating personnel to ensure they have knowledge of the emergency procedures and verify that the training is effective.
3. As soon as possible after the end of a wind energy system emergency, review employee activities to determine whether the procedures were effectively followed.

PSC 128.19 Decommissioning. (1) REQUIREMENT TO DECOMMISSION. (a) An owner of a wind energy system shall decommission and remove the wind energy system when the system is at the end of its useful life.

(b) A wind energy system is presumed to be at the end of its useful life if the wind energy system generates no electricity for a continuous 360-day period. This presumption may be rebutted under par. (c).

(c) Upon application by the owner, and except as provided in par. (d), a political subdivision shall grant an extension of the time period for returning the wind energy system to service by one or more additional 180 day periods if the owner demonstrates it is likely the wind energy system will operate again in the future and any of the following occur:

1. The owner submits a plan to the political subdivision that demonstrates an ongoing good faith effort to return the wind energy system to service and outlines the steps and schedule for returning the wind energy system to service in a reasonable period of time, including by repairing, replacing or repowering the wind energy system facilities as necessary to generate electricity.

2. The owner demonstrates that the wind energy system is part of a prototype or other demonstration project being used for ongoing research or development purposes.

3. The owner demonstrates that the wind energy system is being used for educational purposes.

(d) A political subdivision may deny a request for an extension under par. (c) if the wind energy system has not generated any electricity for a continuous period of 540 days or more and the political subdivision finds that the owner is not capable of returning the wind energy system to service within a reasonable period of time.

(e) A wind energy system is irrebuttably presumed to be at the end of its useful life if the wind energy system generates no electricity for a period of 540 days and any of the following occur:

1. The owner does not request an extension of the time period for returning the wind energy system to service under par. (c).

2. The political subdivision denies a request for an extension under par. (d) and any appeal rights have expired.

(f) When decommissioning is required, the owner shall begin decommissioning within 360 days after the wind energy system has reached the end of its useful life. The owner shall complete decommissioning and removal of the wind energy system within 540 days after the wind energy system has reached the end of its useful life.

(2) DECOMMISSIONING REVIEW. A political subdivision may establish a decommissioning review process to determine when a wind energy system has reached the end of its useful life.

(3) FINANCIAL RESPONSIBILITY. (a) The owner of a wind energy system with a nameplate capacity of one megawatt or larger shall maintain proof of the owner's ability to fund the actual and necessary cost to decommission the wind energy system and shall ensure the availability of

funds necessary for decommissioning throughout the expected life of the wind energy system and through to completion of the decommissioning activities.

(b) A political subdivision may require an owner of a wind energy system with a nameplate capacity of one megawatt or larger to provide financial assurance of the owner's ability to pay for the actual and necessary cost to decommission the wind energy system before commencing major civil construction activities such as blasting or foundation construction at the wind energy system site. An owner may comply with this paragraph by providing a bond, deposit, escrow account, irrevocable letter of credit, or some combination of these financial assurances, that will ensure the availability of funds necessary for decommissioning throughout the expected life of the wind energy system and through to completion of the decommissioning activities.

(c) A political subdivision may require an owner to provide the financial assurance under par. (b) in an amount up to the estimated actual and necessary cost to decommission the wind energy system. If a political subdivision requires an owner to provide financial assurance under par. (b), the political subdivision may do any of the following:

1. Require the owner to provide the political subdivision with up to 3 cost estimates of the actual and necessary cost to decommission the wind energy system developed by third parties agreeable to the owner and the political subdivision.
2. Require an owner to maintain an external trust account for the purpose of funding the actual and necessary cost to decommission the wind energy system controlled by an independent fiduciary trustee throughout the expected life of the wind energy system and through to completion of the decommissioning activities.

3. Require an owner to establish financial assurance that places the political subdivision in a secured position, and that any secured funds may only be used for decommissioning the wind energy system until either the political subdivision determines that the wind energy system has been decommissioned under sub. (5) (b), or until the political subdivision has otherwise approved the release of the secured funds, whichever is earlier.

4. Require an owner to establish financial assurance that allows the political subdivision to access funds for the purpose of decommissioning the wind energy system if the owner does not decommission the wind energy system when decommissioning is required.

(d) If a political subdivision requires an owner to provide cost estimates under par. (c) 1., a political subdivision may not require the amount of the financial assurance to exceed the average of the cost estimates provided.

(e) A political subdivision may condition its approval of a wind energy system on the owner's compliance with pars. (b) and (c).

(f) During the useful life of a wind energy system, the political subdivision may periodically request information from the owner regarding the industry costs for decommissioning the wind energy system. If a political subdivision finds that the future anticipated cost to decommission the wind energy system is at least 10 percent more or less than the amount of financial assurance previously provided under par. (b), the political subdivision may correspondingly increase or decrease the amount of financial assurance required for the wind energy system. A political subdivision may not adjust the financial assurance under this paragraph more often than once in a 5-year period.

(g) A political subdivision may require an owner to submit to the political subdivision a substitute financial assurance under par. (b) if an event occurs that raises material concerns regarding the viability of the existing financial assurance.

(4) SITE RESTORATION. (a) Except as provided in par. (b), if a wind energy system was constructed on land owned by a person other than the owner of the wind energy system, the owner of the wind energy system shall ensure that the property is restored to preconstruction condition, unless otherwise provided in a contract signed by an affected landowner, considering any modifications needed to comply with DNR requirements.

(b) If a wind energy system was constructed on a brownfield, as defined in s. 560.13 (1) (a), Stats., the owner shall restore the property to eliminate effects caused by the wind energy system, except for the effects of environmental remediation activities, as defined in s. 560.13(1) (d), Stats.

(5) DECOMMISSIONING COMPLETION. (a) An owner shall file a notice of decommissioning completion with the political subdivision and the commission when a wind energy system approved by the political subdivision has been decommissioned and removed.

(b) Within 360 days of receiving a notice of decommissioning, a political subdivision shall determine whether the owner has satisfied the requirements of subs. (1) (a) and (4).

Subchapter III – Political Subdivision Procedure

PSC 128.30 Application and notice requirements. (1) APPLICATION REQUIRED. An owner shall file an application to construct a wind energy system with all political subdivisions with jurisdiction over the wind energy system.

(2) CONTENTS OF AN APPLICATION. An owner shall complete and file with the political subdivision an application that includes all of the following:

(a) Wind energy system description and maps showing the locations of all proposed wind energy facilities.

(b) Technical description of wind turbines and wind turbine sites.

(c) Timeline and process for constructing the wind energy system.

(d) Information regarding anticipated impact of the wind energy system on local infrastructure.

(e) Information regarding noise anticipated to be attributable to the wind energy system.

(f) Information regarding shadow flicker anticipated to be attributable to the wind energy system.

(g) Information regarding the anticipated effects of the wind energy system on existing land uses within 0.5 mile of the wind energy system.

(h) Information regarding the anticipated effects of the wind energy system on airports and airspace.

(i) Information regarding the anticipated effects of the wind energy system on line-of-sight communications.

(j) A list of all state and federal permits required to construct and operate the wind energy system.

(k) Information regarding the planned use and modification of roads within the political subdivision during the construction, operation, and decommissioning of the wind energy system, including a process for assessing road damage caused by wind energy system activities and for conducting road repairs at the owner's expense.

(L) A copy of all emergency plans developed in collaboration with appropriate first responders under s. PSC 128.18 (4) (b). An owner may file plans using confidential filing procedures as necessary.

(m) A decommissioning and site restoration plan providing reasonable assurances that the owner will be able to comply with s. PSC 128.19.

(n) A representative copy of all notices issued under sub. (5) and ss. PSC 128.105 (1) (a) and 128.42 (1).

(p) Any other information necessary to understand the construction, operation or decommissioning of the proposed wind energy system.

(3) ACCURACY OF INFORMATION. The owner shall ensure that information contained in an application is accurate.

(4) DUPLICATE COPIES. A political subdivision may specify a reasonable number of copies to be filed. Each copy shall include all worksheets, maps, and other attachments included in the application. A political subdivision may permit an owner to file an application electronically.

(5) NOTICE TO PROPERTY OWNERS AND RESIDENTS. (a) On the same day an owner files an application for a wind energy system, the owner shall, under s. 66.0401 (4) (a) 3., Stats., use commercially reasonable methods to provide written notice of the filing of the application to property owners and residents located within one mile of the proposed location of any wind energy system facility. The notification shall include all of the following:

1. A complete description of the wind energy system, including the number and size of the wind turbines.
2. A map showing the locations of all proposed wind energy system facilities.

3. The proposed timeline for construction and operation of the wind energy system.

4. Locations where the application is available for public review.

5. Owner contact information.

(b) After a political subdivision receives an application for a wind energy system, the notice required to be published by the political subdivision under s. 66.0401 (4) (a) 1., Stats., shall include a brief description of the proposed wind energy system and its proposed location, the locations where the application is available for public review, the method and time period for the submission of public comments to the political subdivision, and the approximate schedule for review of the application by the political subdivision.

(6) PUBLIC PARTICIPATION. (a) A political subdivision shall make an application for a wind energy system available for public review at a local library and at the political subdivision's business office or some other publicly-accessible location. A political subdivision may also provide public access to the application electronically.

(b) A political subdivision shall establish a process for accepting and considering written public comments on an application for a wind energy system.

(c) A political subdivision shall hold at least one public meeting to obtain comments on and to inform the public about a proposed wind energy system.

(7) JOINT APPLICATION REVIEW PROCESS. (a) If the wind energy system is proposed to be located in more than one political subdivision with jurisdiction over the wind energy system, the political subdivisions involved may conduct a joint application review process on their own motion or upon request. If an owner requests a joint application review, the owner shall include the request in its notice of intent to file an application with the political subdivision under s. PSC

128.105 (1). If the owner requests a joint application review process, the political subdivisions involved shall approve or deny this request within 60 days of receipt of the owner's notice of intent to file an application.

(b) Except as provided in s. 66.0401 (4) (a) 2., Stats., if political subdivisions elect to conduct a joint application review process, the process shall be consistent with this chapter and the political subdivisions shall establish the process within 90 days of the date the political subdivisions receive the owner's notice of intent to file an application. A political subdivision may follow the review process of another political subdivision for purposes of conducting a joint application review process concurrently with the other political subdivision. If a joint application review process is adopted, the owner shall file the joint-review process application with all of the political subdivisions participating in the joint review process.

PSC 128.31 Application completeness. (1) COMPLETE APPLICATIONS. (a) An application is complete if it meets the filing requirements under ss. PSC 128.30 (2) and 128.50 (1).

(b) The political subdivision shall determine the completeness of an application, and shall notify the owner in writing of the completeness determination, no later than 45 days after the day the application is filed. An application is considered filed the day the owner notifies the political subdivision in writing that all the application materials have been filed. If a political subdivision determines that the application is incomplete, the notice provided to the owner shall state the reasons for the determination.

(c) An owner may file a supplement to an application that the political subdivision has determined to be incomplete. There is no limit to the number of times that an owner may re-file

an application. For incomplete applications, the owner shall provide additional information as specified in the notice under par. (b).

(d) An additional 45-day completeness review period shall begin the day after the political subdivision receives responses to all items identified in the notice under par. (b).

(e) If a political subdivision does not make a completeness determination within the applicable review period, the application is considered to be complete.

(2) REQUESTS FOR ADDITIONAL INFORMATION. A political subdivision may request additional information necessary to understand the wind energy system after determining that an application is complete. An owner shall provide additional information in response to all reasonable requests. An owner shall respond to all inquiries made subsequent to a determination of completeness in a timely, complete, and accurate manner.

PSC 128.32 Political subdivision review of a wind energy system. (1) APPROVAL BY POLITICAL SUBDIVISION. Except as provided in s. PSC 128.02 (1), a political subdivision may require an owner to obtain approval from the political subdivision before constructing any of the following:

(a) A wind energy system.

(b) An expansion of an existing or previously-approved wind energy system.

(2) STANDARD FOR APPROVAL. (a) A political subdivision may not unreasonably deny an application for a wind energy system or impose unreasonable conditions.

(b) For a political subdivision that does not have in effect an ordinance as described in s. PSC 128.03 and s. 66.0401 (4) (g), Stats., an application submitted under s. PSC 128.30 (1) shall be considered automatically approved if any of the following occur:

1. The political subdivision does not enact an ordinance before the first day of the 4th month after the political subdivision receives the application.

2. The political subdivision notifies the applicant in writing that it does not intend to enact an ordinance, as described in s. 66.0401 (4) (a) 2., Stats.

(3) WRITTEN DECISION. (a) A political subdivision shall issue a written decision to grant or deny an application for a wind energy system. The written decision shall include findings of fact supported by evidence in the record. If an application is denied, the decision shall specify the reason for the denial. A political subdivision may make its approval subject to the conditions in s. PSC 128.33.

(b) 1. A political subdivision shall provide its written decision to the owner and to the commission. If a political subdivision approves an application for a wind energy system, the political subdivision shall provide the owner with a duplicate original of the decision.

2. The owner shall record the duplicate original of a decision approving an application with the register of deeds for the county in which the wind energy system is located.

(4) EFFECT OF OWNERSHIP CHANGE ON APPROVAL. Approval by a political subdivision of a wind energy system remains in effect if there is a change in the owner of the wind energy system. A political subdivision may require an owner to provide timely notice of any change in the owner of the wind energy system.

(5) FEES. (a) A political subdivision may charge an owner a reasonable application fee or require an owner to reimburse the political subdivision for reasonable expenses relating to the review and processing of an application for a wind energy system.

(b) A political subdivision's fee or reimbursement requirement under par. (a) shall be based on the actual and necessary cost of the review of the wind energy system application, and may include the cost of services necessary to review an application that are provided by outside engineers, attorneys, planners, environmental specialists, and other consultants or experts. The political subdivision may by ordinance set standardized application fees based on the size and complexity of a proposed wind energy system.

(c) A political subdivision may require an owner of a wind energy system to submit up to 50 percent of the total estimated amount of the fee or reimbursement for the wind energy system application under par. (a) before issuing a written decision under sub. (3) (a), if the political subdivision gives written notice to the owner of its intent to do so within 10 days of the date the application is deemed complete and the notice contains an estimate of the amount of the fee and the relevant reimbursement requirements.

(d) A political subdivision may not charge an owner an annual fee or other recurring fees to operate or maintain a wind energy system.

Note: See also s. 66.0628(2), Stats., which requires any fee imposed by a political subdivision to bear a reasonable relationship to the service for which the fee is imposed.

PSC 128.33 Political subdivision permitted provisions. A political subdivision may do any of the following in an ordinance or establish any of the following as a condition for approval of an application to construct a wind energy system:

(1) **INFORMATION.** Require information about whether an owner has consulted with and received any non-binding recommendations for constructing, operating or decommissioning the wind energy system from a state or federal agency, and whether the owner has incorporated such non-binding recommendations into the design of the wind energy system.

(2) STUDIES. Require an owner to cooperate with any study of the effects of wind energy systems coordinated by a state agency.

(3) MONETARY COMPENSATION. Require an owner of a wind energy system to offer an agreement that includes annual monetary compensation to the owner of a nonparticipating residence, if the residence is within 0.5 mile of a constructed wind turbine site. If a political subdivision requires a wind energy system owner to offer such an agreement, the political subdivision may not require the total annual payment offered to any owner of a nonparticipating residence to exceed 25 percent of the amount paid by the wind energy system owner to any owner of a turbine host property receiving payment under a wind energy system lease for one wind turbine. An agreement offered under this subsection shall specify in writing any waiver of a requirement or right under this chapter and whether the landowner's acceptance of payment establishes the landowner's property as a participating property under this chapter.

(4) PERMITS. Require the owner to submit to the political subdivision copies of all necessary state and federal permits and approvals.

(5) ANNUAL REPORTS. Require the owner to file an annual report with the political subdivision documenting the operation and maintenance of the wind energy system during the previous calendar year.

128.34 Record of decision. (1) RECORDKEEPING. (a) A political subdivision shall keep a complete written record of its decision-making relating to an application for a wind energy system.

(b) If a political subdivision denies an application, the political subdivision shall keep the record for at least 7 years following the year in which it issues the decision.

(c) If a political subdivision approves an application, the political subdivision shall keep the record for at least 7 years after the year in which the wind energy system is decommissioned.

(2) RECORD CONTENTS. The record of a decision shall include all of the following:

(a) The approved application and all additions or amendments to the application.

(b) A representative copy of all notices issued under ss. PSC 128.105 (1) (a), 128.30 (5) and 128.42 (1).

(c) A copy of any notice or correspondence that the political subdivision issues related to the application.

(d) A record of any public meeting under s. PSC 128.30 (6) (c) and any hearing related to the application. The record may be an electronic recording, a transcript prepared from an electronic recording, or a transcript prepared by a court reporter or stenographer. The record shall include any documents or evidence submitted by meeting or hearing participants.

(e) Copies of any correspondence or evidentiary material that the political subdivision considered in relation to the application, including copies of all written public comments filed under s. PSC 128.30 (6) (b).

(f) Minutes of any political subdivision, board, council or committee meetings held to consider or act on the application.

(g) A copy of the written decision under s. PSC 128.32 (3) (a).

(h) Other materials that the political subdivision prepared to document its decision-making process.

(i) A copy of any political subdivision ordinance cited in or applicable to the decision.

(3) POST-CONSTRUCTION FILING REQUIREMENT. Within 90 days of the date a wind energy system commences operation, the owner shall file with the political subdivision and the commission an as-built description of the wind energy system, an accurate map of the wind energy system showing the location of all wind energy system facilities, geographic information system information showing the location of all wind energy system facilities and current information identifying the owner of the wind energy system. An owner shall in the filings under this subsection label each wind turbine location with a unique identifier consistent with the information posted at the wind turbine location under s. PSC 128.18 (1) (g).

PSC 128.35 Modifications to an approved wind energy system. (1) MATERIAL CHANGE.

(a) An owner may not make a material change in the approved design, location or construction of a wind energy system without the prior written approval of the political subdivision that authorized the wind energy system, unless the political subdivision automatically approves the material change by taking either of the steps specified in s. PSC 128.32 (2) (b) 1. or 2.

(b) An owner shall submit an application for a material change to an approved wind energy system to the political subdivision that authorized the wind energy system.

(2) REVIEW LIMITED. (a) A political subdivision that receives an application for a material change to a wind energy system under sub. (1) (b) may not reopen the merits of the earlier approval but shall consider only those issues relevant to the proposed change.

(b) An application for a material change is subject to ss. PSC 128.30 (1), (3) to (5), (6) (a) and (b) and (7) and 128.31 to 128.34.

(c) An application for a material change shall contain information necessary to understand the material change.

(d) A political subdivision may hold at least one public meeting to obtain comments on and to inform the public about a proposed material change to an approved wind energy system.

PSC 128.36 Monitoring compliance. (1) MONITORING PROCEDURE. A political subdivision may establish a procedure to monitor compliance by the owner with any condition on an approved wind energy system or to assess when wind energy system facilities are not maintained in good repair and operating condition. The procedure may include timelines, provide for payment of reasonable fees for conducting an assessment, and provide for notification to the public.

(2) THIRD-PARTY INSPECTOR DURING CONSTRUCTION. A political subdivision may require an owner to pay a reasonable fee for a third-party inspector to monitor and report to the political subdivision regarding the owner's compliance with permit requirements during construction. An inspector monitoring compliance under this subsection shall also report to a state permitting authority upon the state permitting authority's request.

Subchapter IV – Complaints

128.40 Complaint process. (1) MAKING A COMPLAINT. (a) An aggrieved person may make a complaint regarding failure by an owner to comply with an obligation under this chapter or an ordinance adopted under this chapter.

(b) A complaint under par. (a) shall be made first to the owner of the wind energy system pursuant to a complaint resolution process developed by the owner.

(c) A complainant may petition the political subdivision for review of a complaint that is not resolved within 45 days of the day the owner receives the original complaint.

(d) A political subdivision's decision under par. (c) is subject to review under s. 66.0401 (5), Stats.

(2) COMPLAINT RESOLUTION. (a) An owner shall use reasonable efforts to resolve complaints regarding a wind energy system and shall investigate complaints regarding a wind energy system at the owner's expense.

(b) Upon receipt of a complaint, an owner shall provide the complainant with a copy of the notice described in s. PSC 128.42 (1). Within 30 days of receiving a complaint, an owner shall provide an initial response to the complainant.

(c) An owner shall make a good faith effort to resolve complaints within 45 days of receiving a complaint. An owner shall notify a political subdivision of complaints that have not been resolved within 45 days of the date the owner received the original complaint.

(d) An owner shall maintain a log of all complaints received regarding the wind energy system. The owner shall include in the log the name and address of each complainant, the nature of each complaint, and the steps taken to resolve each complaint. An owner shall provide a copy of a complaint log monthly, at no cost, either to a monitoring committee established under s. PSC 128.41 or, if a monitoring committee has not been established, to the political subdivision. An owner shall make any complaint log available to the commission upon request.

(e) An owner shall develop a complaint resolution process that is consistent with this subsection.

128.41 Monitoring committee. (1) COMMITTEE. Except as provided in sub. (3), a political subdivision may establish a monitoring committee to oversee resolution of complaints regarding a wind energy system. A monitoring committee shall include on the committee a member who is a local employee of an owner of a wind energy system and, if in existence, at least one

nonparticipating landowner residing in the political subdivision within 0.5 mile of a wind turbine that is located in the political subdivision.

(2) DUTIES. A monitoring committee established under sub. (1) may do any of the following:

(a) Maintain a record of all complaints brought to it.

(b) Require the owner to provide the committee with information regarding the owner's response to any complaint forwarded to the owner by the committee.

(c) Recommend to the political subdivision a reasonable resolution to a complaint based upon the information gathered by the committee.

(3) MULTIPLE JURISDICTIONS. If a wind energy system is located in more than one political subdivision with jurisdiction over the wind energy system and multiple political subdivisions decide to establish a monitoring committee, the political subdivisions shall jointly establish a single monitoring committee to oversee resolution of complaints regarding the wind energy system.

128.42 Notice to property owners and residents. (1) NOTICE OF PROCESS FOR MAKING COMPLAINTS. Before construction of a wind energy system begins, an owner shall provide written notice of the process for making complaints and obtaining mitigation measures to all residents and landowners within 0.5 mile of any wind energy system facility. An owner shall include in the notice the requirements under s. PSC 128.40 (1) for submitting a complaint to the owner, a petition for review to the political subdivision, and an appeal to the commission, and shall include a contact person and telephone number for the owner for receipt of complaints or concerns during construction, operation, maintenance and decommissioning.

(2) NOTICE TO POLITICAL SUBDIVISION. An owner shall provide a copy of the notice under sub. (1) to any political subdivision with jurisdiction over the wind energy system, and the owner shall keep the contact person and telephone number current and on file with the political subdivision.

Subchapter V – Commission Procedure

PSC 128.50 Standards established by the commission. (1) DETAILED APPLICATION FILING REQUIREMENTS. The commission shall establish detailed application filing requirements for applications filed for political subdivision review of a wind energy system, which shall contain a detailed description of the information required to satisfy the filing requirements for applications under s. PSC 128.30 (2). The commission may revise these requirements as necessary. The commission shall make the filing requirements available to the public on the commission's website.

(2) COMMISSION PROTOCOLS. (a) The commission may periodically create and revise measurement, compliance, and testing protocols as needed to provide standards for evaluating compliance with this chapter. These protocols may be created and revised to reflect current industry practice, changes in the state of the art, and implementation of new technologies. The commission may make protocols under this subsection available to the public on the commission's website.

(b) The commission may establish protocols in any of the following areas:

1. Noise measurement, compliance and mitigation.
2. Stray voltage testing and remediation.

3. Shadow flicker compliance and mitigation.
4. Communications interference testing and mitigation.
5. Other areas where protocols are appropriate.

PSC 128.51 Commission review. (1) APPEALS TO THE COMMISSION. An appeal under s. 66.0401 (5) (b), Stats., shall be treated as a petition to open a docket under s. PSC 2.07, except the time provisions of that section do not apply.

(2) PETITIONER FILING REQUIREMENTS. An aggrieved person under s. 66.0401 (5) (a), Stats., may file a petition with the commission. The petition shall be submitted to the commission in writing or filed using the commission's electronic filing system and shall contain all of the following:

- (a) The petitioner's name, address, and telephone number.
- (b) The name, address, and telephone number of the political subdivision that is the subject of the petition.
- (c) A description of the wind energy system that is the subject of the petition.
- (d) A description of the petitioner's relationship to the wind energy system.
- (e) The information specified in s. PSC 2.07 (2).

(3) POLITICAL SUBDIVISION FILING REQUIREMENTS. (a) A political subdivision shall file a certified copy of the information required under s. 66.0401 (5) (c), Stats., using the commission's electronic regulatory filing system.

- (b) The commission may require the political subdivision to file up to 5 paper copies of the record upon which it based its decision.
- (c) The commission may require the political subdivision to file additional information.

(4) SERVICE AND NOTICE. (a) An owner submitting a petition under sub. (2) (intro.) shall serve a copy of the petition on the political subdivision and on any other person specified in s. PSC 2.07 (3).

(b) Any person other than an owner submitting a petition under sub. (2) (intro.) shall serve a copy of the petition on the owner, the political subdivision, and any other person specified in s. PSC 2.07 (3).

(c) A political subdivision that is subject to a petition under sub. (2) shall make a copy of the petition available for public inspection and, in the manner in which it is required to publish notice of a public meeting, publish notice of that petition.

(5) COMMISSION HEARING DISCRETIONARY. The commission may review a petition under this section with or without a hearing.

(6) ENVIRONMENTAL ANALYSIS. A docket opened to review a petition under this section is a Type III action under s. PSC 4.10 (3).

(7) REMAND TO POLITICAL SUBDIVISION. (a) Except as provided in par. (b), if the commission remands any issue to the political subdivision, the political subdivision's review on remand shall be completed in a time frame established by the commission in its remand order.

(b) If the commission determines that a political subdivision has not yet reviewed an application that is complete, and the commission remands the application to the political subdivision for review, the political subdivision's review shall be completed within the time frame provided for reviewing a complete application under this chapter and s. 66.0401(4) (d) and (e), Stats., beginning with the day after the day on which the commission issues its remand order.

Subchapter VI – Small Wind Energy Systems

PSC 128.60 Exemptions from this chapter. All of the provisions in this chapter apply to a small wind energy system except ss. PSC 128.14 (4) (d) and (6) (b), 128.15 (1) (c), (3) (b) to (e) and (5), 128.16 (2) to (4), 128.18 (1) (g), (2) (b) and (c), (3) (b) and (c), and (4) (b) to (f), 128.19 (1) (c) to (e), (3) and (4), 128.30 (2) (L) and (m), 128.33 (1) to (3) and (5), 128.34 (3), 128.36, 128.40 (2) (b) to (e), 128.41 and 128.42.

PSC 128.61 Modifications to this chapter. The following provisions in this chapter are modified to apply to a small wind energy system as follows:

(1) NOTICE. Under s. PSC 128.105 (1), the notice shall be filed at least 60 days before an owner files an application to construct a small wind energy system and the notice shall be provided only to adjacent landowners and the political subdivisions with jurisdiction over the small wind energy system.

(2) LAND USE. Section PSC 128.12 applies only to existing land uses and enterprises that are located on adjacent nonparticipating properties.

(3) SETBACK DISTANCES. In s. PSC 128.13 (1):

(a) Table 1 is replaced with Table 2.

(b) The owner of an adjacent nonparticipating residence or adjacent occupied community building may waive the applicable turbine setback distances in Table 2.

Table 2	
Setback Description	Setback Distance
Occupied Community Buildings	1.0 times the maximum blade tip height
Participating Residences	None
Nonparticipating Residences	1.0 times the maximum blade tip height
Participating Property Lines	None
Nonparticipating Property Lines	1.0 times the maximum blade tip height
Public Road Right-of-Way	None
Overhead Communication and Electric Transmission or Distribution Lines - Not including utility service lines to individual houses or outbuildings	1.0 times the maximum blade tip height
Overhead Utility Service Lines - Lines to individual houses or outbuildings	None

(4) NOISE. Under s. PSC 128.14 (6) (b), an owner shall provide notice of the requirements of s. PSC 128.14 only to each adjacent nonparticipating residence or occupied community building before the initial operation of the small wind energy system.

(5) USEFUL LIFE. Under s. PSC 128.19 (1), a small wind energy system is presumed to be at the end of its useful life if it generates no electricity for a continuous 540-day period.

(6) EFFECTS ON LAND USES. Under s. PSC 128.30 (2) (g), the information regarding the anticipated effects of the small wind energy system on existing land uses shall only be for parcels adjacent to the wind energy system.

(7) APPLICATION NOTICE. Under s. PSC 128.30 (5) (a), written notice of the filing of the application shall be provided only to property owners and residents located adjacent to the small wind energy system.

(8) MEETINGS. Under s. PSC 128.30 (6) (c), a political subdivision may hold at least one public meeting to obtain comments on and to inform the public about a proposed small wind energy system.

SECTION 3. EFFECTIVE DATE. This rule takes effect on the later of January 1, 2011, or the first day of the first month following publication in the Wisconsin administrative register, as provided in s. 227.22 (2), Stats.

(End)

RESPONSES TO PUBLIC HEARINGS AND WRITTEN COMMENTS

The names of those who provided input are listed first, followed by details about and responses to specific suggestions.

Those who testified at hearings and/or submitted written comments:

Name	Representing
Adams, Jerome	
Adamski, Richard	
Aerts, Danny	
Alhart, Dean	
Allsup, Mark	
Alt, Joseph and Arlene	
Anhalt, Dean	
Anthony, Jeff	
Ashbee, Barbara	
Aulik, Jamie	Manitowoc County Clerk
Bahr, Brenda	
Bahr, Tom	
Barton, Tanya	
Balinski, Chelsea	
Barry, Lynda	
Basa, William,	Northern Power Systems
Becher, James and Fernell	
Behnke, Annette	Joint Utilities
Bembinster, Cathy	
Bembinster, Jim	
Berendes, Bud	
Berendes, Stephen and Bernadette	
Bergum, Michael	
Bertrum, John	
Bischler, Jeffrey and Jane	
Bixby-Wendt, Julie	
Blank, JoAnne	Bonestroo Engineers
Boelk, Donna	
Bond, Irene	
Books, Steve	
Bord, John	Town of Marshfield – Chairperson
Borys, Ryszard	Sigma System Inc
Brandt, Mary	
Breitenmoser Jr, Hans	
Brill, Alice	
Brill, Daniel	
Brockman, Lori	
Bromley, Matt	Customers First! Coalition

Browne, Jerry	
Bruggind, Wayne	
Brunn, Arla	
Budden, Randy	
Buerger, Michelle	
Callis, Graham	
Candee, Kathleen	
Canny, Bruce	
Caspari, Laura	
Christensen, Todd	Town of Morrison – Chairperson
Cleven, Jeannie	
Coffin, Barbara	
Collins, Kevin	Town of Morrison
Congdon, James and Cheryl	
Congine, Betty	
Connors, Alice	Calumet County Planning, Zoning and Farmland Preservation Committee
Cooley, Jerry	
Coussons, Herb	
Criter, Jerry	
CWEST	
Dalka, Bruce	
Dannhoff, Allyn	
Dau, Darlene	
Dei, Robert	Local 139 International Union of Operating Engineers
Deiter, Linda and Gary	
Des Lauriers, Mark	
Des Lauriers, Ronald and Hanna	
Des Lauriers, Steven	Town of Holland – Local committee
Des Lauriers, Steven	Filed petition with 900 names
Death, James and Susan	
Diedrick, Colleen	Diedrick Family Farm
Diedrick, Dennis	
Dietzel, Edmund and Melinda	
Dinges, Barnaby	Dinges Gang
Diny, Ronald	Towns of Wrightstown, Morrison and Glenmore
Ditter, Jodi	Ditter Farms
Ditter, Paul	
Ditter, Ron	Ditter Farms
Dogherty, Mickie	
Domann, Fred	
Donar, Melvin	
Donar, Teresa	
Driscoll, Neil	
Droessler, James	
Droessler, Rob	Town of Smelser
Droz Jr., John	
Duncan, James	IUOE Local 139 Operating Engineers
Ebertz, Elizabeth	
Edinger, Jeffrey	

Egan, George, Robert and Glenda	
Ehlers, Jeff	Renewergy LLC
Eichhorst, James	
Eichhorst, Michael and Hollie	
Ellingson, Tracy	
Enders, Jason	
Epstien, Dan	
Ericson, Jeff	
Etter Hale, Karen	Madison Audubon Society
Fanta, Sandra Sue	
Fechter, Gerald	
Fechter, Mary Jane	
Fechter, William	
Fenske, Bill	
Ferrell Sheldon	
Fiala, Ron	IUOE Local 139 Operating Engineers
Fischer, Paul	Village of Oconomowoc Lake
Fix, Steven	Birch Hill Environmental Consulting
Flaum, Jackie	
Fletcher, Jamie	
Forbes, Kevin	Brown County Citizens for Responsible Wind Energy
Fowle, Eric	
Fries, Doug	
Fries, Mary	
Fries, Nicholas	
Fritsche, James G.	
Gaalswyk, Joel	
Garro, Frank	Town of Princeton
Gebhardt John and Betty	
Gebhardt, Mary	
Gehring, Kevin	
Geib, Rachel	
Geier, Mike	Range Control, Fort McCoy
George, Nikolas	Midwest Food Processors Association
Geraghty, Linda	
Gerend, Jerry	
Gerlach, Wayne	
Gildmeister, Gail	
Gildmeister, Glen	
Gildmeister, Michelle	
Gildmeister, Terry	
Gjestson, David	
Godin, Eric	
Graewin, Lavonne	
Graewin, Nathan	
Greco, Jordan	
Gruett, Ron	
Gumtow, Jon	
Hafeman, Harvey	
Hahn, Teresa	

Hammes, Don	
Hansel, Gerhald	
Hansen, Derrick	
Hansen, Eugene	
Harmann, Lisa	
Harmann, Timothy	
Harms, Samuel	
Hartl, Judith	
Hau, John	
Head, Tina	
Hedrich, Daniel	Local rule drafting committees
Heichler, Katherine and Karl	
Heidel, Angelita	
Heidel, David	
Henry, V. Burke	Town of La Pointe
Herriott, Mark	
Hettmann, Dave	
Heuer, Ronald	
Heyroth, Richard et al	
Heyroth, Tony	
Hilbelink, Diane	
Hilbelink, Glenn	
Hilgenberg, Curt	
Hirsch, Jon	
Hirsch, Mark	
Hirsch, Vicki	
Hlinak, Jerome	
Hobbs, Vance	Department of Defense Regional Environmental Coordinator (Army)
Hoeft, Donald	
Hoerth, Diane	CC4RE
Hoffman, CJ	Towns of Mishicot, Two Creeks, Two Rivers, Carlton, West Kewaunee
Hoffman, John	
Holzer, Ann	
Hoppman, Lisa and Mark	
Horns, Ray	
Horonjeff, Richard	Brown County Citizens for Responsible Wind Energy
Horton, Nancy	
Hutter, Mark	Michels Corporation
Ihm, Reginald	
Jacks, Keith	
Jenschke, Barbara	
Jenschke, Eric	
Jensen, Jeff and Karen	
Johnson, Carl	
Johnson, Sandra	
Jordan, Richard	
Judeas, Jesse	Towns of Wrightstown, Morrison and Glenmore
Kania, Richard	

Kanitz, Roger	
Karls, Gerald	
Karls, Joan	
Kawula, Kevin	
Kempen, Tom	
Kessler, Kevin	Town of West Point
Klar, Peter	
Kleckner, Edward	
Kline, Gordon	
Klug, David	
Klug, Doug	
Klug, Sherri	
Knipp, Andrew	
Knott, Bill	
Knuth, Lynne	
Knutson, Carrier	
Kocian, Brenda	
Konopacki, Andrew	
Konopacki, Christine	
Kooman, Gary	
Korinek, David	
Korinek, Lynn	
Kortbein, Alma	
Kortbein, Royce	
Kostecki, Eric	WPPI Energy
Kraemer, Daniel	
Kraemer, Jackie	
Kraemer, Norbert and Janice	
Kraus, Diane	
Kraus, James	
Kraus, Ken	
Kraus, Michael	
Krause, Randy	
Kreis, Jesse	IUOE Local 139 Operating Engineers
Kringstad, Dave and Kari	
Kruehl, Maynard	Town of West Kewaunee
Krugler, David	
Kruse, Tom	Town of West Kewaunee
Kuehnel, Carl	
Kuehnel, Ed and Carol	
Kunkel, Connie and Thomas	
Kunkel, Ron and Mary Pat	
Kunz, Francis	
Kunz, Grace	
L and S Technical Associates	
Laffin, S	L and S Technical Associates
Lagerman, Joan	
Lagerman, Patrick	
Lakin, JoAnn	
Lamont, Larry	
Landsman, Jeffrey,	Dairyland Power Cooperative and Wisconsin

	Electric Cooperative Association
Langland, Rosmarie	Town of Kildare
Lanier, Lyda	
Lark, Larry	Town of Holland
Lark, Theresa	
Larkin, John	
Lehmann, Ken	
Leick, Christy	
Leick, Gary	
Leonard, Cheryl	
Leonard, Tony	
Leymera, Michael	
Lisowe, Daniel	East Shore Dairy LLC
Lisowe, Pat	
Loeffelholz, Fedelis	
Loehlein, John and Cynthia	
Lowery, Mary and Thomas	
Lowry, Deborah and John	
Lozanov, Kiril	
Lozanova, Sarah	
Ludwig, Angie and Nic	
Ludwig, Brenda	
Ludwig, Dick	
Ludwig, Paul	
Ludwig, Susan	CC4RE
Maas, Donald	
Malesevich, David	
Maleug, Erik	
Malm, Katherine	
Marion, Edward	Brown County Citizens for Responsible Wind Energy, Old Dominion Freight Lines
Martzahl, Travis	Local 139 International Union of Operating Engineers
Mattox, Shirley	Citizens for a Scenic Wisconsin
McCabe, Janet	
McCabe, Karen	
McCabe, Paul	
McIntire, Natalie	
McLendon, Charles	
McLeod, Eugene	
McMahon, Chris	
McMullen, Wallace	
Medina, Jose	NextERA Energy Resources
Mercant, Peter	
Meyer, Gerry	
Michetti, Susan	
Mielke, Mary	
Miller, William	
Moehn, Rose	
Morehouse, Jeremy	
Morehouse, Jon	

Morehouse, Kristin	
Morehouse, Lori	
Muehlechner, Gerd	Tretgen Solar LLC
Muelemans, Joseph	
Mueller, Darlene	
Mueller, James	
Mueller, Steven	
Muller, Doug	Organic Valley Crop Cooperative
Murphy, Audrey	Brown County Board of Health
Nelesen, Joseph	
Nelesen, Mary	
Nett, Gerald	
Nett, Janice	
Nett, Marjorie	
Neumann, Charlie	
Newhouse, Bill	Bonestroo Engineers
Nilsestuen, Rod, DATCP	DATCP
Nodorft, James	
Norenberg, Dale	
Norling, Stephen	
Oehlhof, Ryan	IUOE Local 139 Operating Engineers
Olsen, David	
Olson, Daniel	League of Wisconsin Municipalities
Opperman, Brenda	
Palazzolo, Marilyn	
Parker, Judy	
Patek, George et al	
Pavlovich, Mike	
Pestor, Sue	
Phillips, Carl	Brown County Citizens for Responsible Wind Energy
Poll, Charles and Rita	
Popp, Mark	
Popp, Sandra	
Propson, Donald	
Propson, Marilyn	
Quale, Richard	
Qualle, Richard	
Rademann, Mark	
Radke, Connie	
Radke, Robert	
Radtke-Rynes, Andi	
Raether, Wayne	
Rakocy, William	Emerging Energies
Rawson, Ronald	Town of Smelser
Reabe, Damon	
Reihl, Mark	Wisconsin State Council of Carpenters
Reimer, Ron	
Resop, Tony	IUOE Local 139 Operating Engineers
Reynolds, Connie	
Rezabek, Cheryl	

Rice, Jim	
Rich, Elizabeth	E4
Rieman, Gary	
Ritger, Edward	Attorney representing host landowners
Roberts, Anita	
Roberts, Jeff	
Rude, Emmet	
Rudy, Carroll	
Runde, Eugene and Shirley	
Runde, Jillian and Jacob	
Runde, Mary, Gene and Kelly	
Rust, Gisela	
Rynes, Mike	
Schauland, Amy	
Schmidt, K	
Schmidt, Kerri	
Schneider, Chuck	Town of Brothertown – Chairperson
Schneider, Dave and Julie	
Schneider, Michael	
Schuster, Kenneth J.	
Schwalbach, Glen	Towns of Morrison, Wrightstown, and Glenmore
Schwalenberg, Doryn	
Schwarz, Dean	
Schwobe, Donald	
Seffren, Jill	
Selk, Erv	
Selk, Tom	
Sethne, Mark	
Singer, Dave	Town of Kildare
Siporski Raether, Sue	
Skaletski, Curt	
Skewes, Bill	Wisconsin Utilities Assn.
Skiba, Joseph	
Slaymaker, Weselley	WES Engineering
Sletten, Virgil and Mary Lou	
Smith, Vernie	
Sonntag, Sara and Ken	
Sprosty, Kenneth	
Stadelman, Richard	Wisconsin Towns Assn.
Stahl, Will	Sierra Club
Stanek, Janice	
Stanek, Marsha	
Stark, Ardith	
Steffen, Tina	
Stenz, Dennis	Town of Marshfield
Strack, Don	
Strack, Jean	
Strassman, Sara	
Strazdins Epstein, Inese	
Strock, Kenneth	
Strock, Margie	

Strous Jr., Robert	
Swalheim, Keith	Little Wheel Field Airport
Swed, Frederick	
Teitgen, Fred	
Theil, Tamara	
Thiem, Ryan	
Thomas, David	
Thommer, L	
Thorne, Darryl and Barbara	
Thompson, Jo Marie	
Timmerman, Charles and Judy	
Timmermann, Eldred and Alvina	
Timmerman, Jenny and Mike	
Timmermann, Tom and Janet	
Timmons, Bob	
Tipler, Gene	Calumet Medical Center Clinic
Tocco, Cherie	
Tocco, Thomas	
Treichel, Patricia	
Treu, Jarret	
Trine, Larry	
Turk, Barbara	
Van Asten, Karen	
Van Clausen, Juliana	
Vanden Boogart, Barbara	
Vanden Boogart, James	
Vander kinter, Marilyn	
Van Sistine, Ric	
Venden, Kellee	
Vercauterer, Daniel	
Vercauterer, Joanne and Dave	
Vercauterer, Jeffrey	Bonestroo, Inc. EcoManity, LLC Element Power, LLC Emerging Energies of Wisconsin, LLC Energize, LLC Eric Welch, P.E. Geronimo Wind Energy, LLC Half Moon Power, LLC Horizon Wind Energy, LLC John Hippensteel, P.E. Iberdrola Renewables, Inc. Invenergy Wind Development, LLC LandS Technical Associates, Inc. Lake Michigan Wind and Sun, Ltd. Lean, Clean Energy Services Kettle View Renewable Energy, LLC Midwest Wind Energy, LLC Natural Resources Consulting, Inc. North Wind Renewable Energy, LLC Northern Power Systems, Inc. Operating Engineers Local 139

	RENEW Wisconsin Renewegy, LLC Rich Hasselman, Consultant Ritger Law Office Sagrillo Power and Light Seventh Generation Energy Systems, Inc. St. Croix Valley Sustainability Solutions, LLC Sustainable Living Group Timmerman's Talents, LLC Wausaukee Composites, Inc. Wave Wind, LLC WES Engineering, Inc. William Utley, Community Wind Energy, LLC Wind Capital Group, LLC Wind on the Wires Wisconsin Laborers District Council Wisconsin State Council of Carpenters
Vercauteren, Sandy	
Verheyen, Troy	
Vind, David	
Vind, Deloras	
Voeck, Julie	NextERA Energy Resources
Vogt, Jane	
Vollmer, James	
Von Aulock, Guido	
Von Haden, Tina	Oakdale Electric Cooperative
Vonar, Ronald and Brenda	
Vondra, Shane	
Voogt, Donald	
Vorpahl, Jean	
Vorpahl, Richard	
Wacker, Adam	
Wall, Colt	
Wallerman, Carrol	Ridgeville Holstiens
Walsdorf, David	Operating Engineers
Ward, Elizabeth	Sierra Club
Watson, David	
Weber, Kathleen	
Wehrle, Kurt and Jennifer	
Welch, Bob	CWEST
Welch, Eric	Northern Power Systems, Inc
Wendland, Travis	
Wendt, Bruce	
Wenig, Brian	
Wenig, Edward	
Wichert, Don	Wisconsin Energy Conservation Corporation
Wiedenholt, Kevin and Karla	
Wilhelms, Donna	
Wilke, Brian	City of Kenosha
Wilson, Marie	
Wininsky, Dona	American Lung Assn.

Wirtz, Ann and Jason	
Wittick, Doug	
Wisconsin Utility Association	Wisconsin Utility Association
Woelfel, Martha	
Woelfel, M	
Wolcott, Betty	Trempeleau County Wind Energy Advisory Committee
Wunsch, Larry	
Yunk, Joseph	
Zigmunt, Ted (Representative)	2nd Assembly District

Comments received and responses to those comments follow:

Introduction

Comments were received during the public comment period on the proposed rule as described below. In addition to the specific comments discussed below, various comments were received that proposed wording changes that were not included in the rule because the wording changes suggested would not clarify the proposed rule, were not consistent with the terminology used throughout the rule, would narrow the intended scope of the rule, were outside the scope of the proposed rule, or conflicted with accepted standards for rule drafting.

Scope of Rulemaking

Section 196.378(4g)(b), Stats., directs the commission to promulgate rules that specify the restrictions a political subdivision may impose on a wind energy system. Section 196.378(4g)(b), Stats., states in part:

- (b) The commission shall, with the advice of the wind siting council, promulgate rules that specify the restrictions a political subdivision may impose on the installation or use of a wind energy system consistent with the conditions specified in s. 66.0401 (1m) (a) to (c)....

The conditions mentioned in the above statute are listed in s. 66.0401(1m), Stats. :

(1m) **AUTHORITY TO RESTRICT SYSTEMS LIMITED.** No political subdivision may place any restriction, either directly or in effect, on the installation or use of a wind energy system that is more restrictive than the rules promulgated by the commission under s. 196.378 (4g) (b). No political subdivision may place any restriction, either directly or in effect, on the installation or use of a solar energy system, as defined in s. 13.48 (2) (h) 1. g., or a wind energy system, unless the restriction satisfies one of the following conditions:

- (a) Serves to preserve or protect the public health or safety.
- (b) Does not significantly increase the cost of the system or significantly decrease its efficiency.

(c) Allows for an alternative system of comparable cost and efficiency.

Some commenters suggested this language means that the commission's rules must satisfy all of the conditions. Commenters specifically were concerned that the rules as proposed may not satisfy the condition in s. 66.0401(1m)(a), Stats., regarding public health or safety. Commenters suggested that if the commission's rules do not serve "to protect the public health or safety," the rules would not be consistent with s. 196.378(b), Stats. There are several flaws with the basis for these comments.

As can be seen by the introductory language in the statute, the rules only need to satisfy one of the conditions. To require the commission to promulgate rules consistent with all of the conditions when political subdivisions only need to be consistent with one of those conditions would be illogical.

The remainder of s. 196.378(4g)(b), Stats., specifies a number of different subjects that the commission must or may address in the rules. While some of the listed topics may fall under the umbrella of public health or safety, it is hard to see how several of them, such as "visual appearance" and "interference with radio, telephone, or television signals," could be reasonably interpreted as purely a matter of public health or safety. Since those topics don't meet the "public health and safety" criteria, it would be impossible to have a rule that both meets all of the conditions and addresses the topics that the statute requires be addressed. Additionally, the legislature envisioned the need to go beyond the matters specified, as the law also provided that the rules "may include...other matters." Several commenters encouraged the commission to ensure that its rules comply with one of the three conditions listed in s. 66.0401(1m)(a) to (c), however, no commenters argued that the commission's proposed rules fail to satisfy one of these conditions.

Rule Provisions - Subchapter I

PSC 128.01 Definitions

In addition to substantive comments on various topics that related to how terms were used as discussed below, some comments were received specifically addressing the definitions of the following terms:

- Developer – a comment asked to delete "regardless of whether the person will own or operate the wind energy system" and replace with "excluding third-party consultants." This change was not made as it is important to be very clear about who has what obligations under the rule. The rule makes it clear that someone is obligated by all requirements for a developer even if they are also an owner, and developer requirements apply to parties that conduct development activities but do not refer to themselves as a "wind developer." However, to avoid confusion by the use of two terms for the parties responsible for a wind energy system, the definitions of "developer" and "owner" have been combined under the definition of "owner." The definition clarifies that an owner is

always obligated, but that a developer is only obligated while the wind energy system is being developed.

- Line of sight – some comments requested this term be defined and suggested various types of communications to be included in the definition, some of which were originally intended to be included, and some of which were not. Two new definitions were drafted to address these comments - commercial communications and personal communications. See also the discussion of signal interference below.
- Occupied community building – comments suggested including various additional buildings in this term. The term is used to identify how the noise and shadow flicker standards must be complied with. The additional buildings suggested to be included were not within the realm of the intended scope of the noise and shadow flicker standards. See also discussion of noise and shadow flicker below. The only change made was to change “church” to “church or similar place of worship” to include other places of worship, as these were not intended to be excluded from the standard.
- Participating property – some comments indicated dislike for this term, and indicated that some people feel like all properties near a project “participate” in its effects. No changes were made to the term itself, since this term is widely used regarding wind development in Wisconsin. Other comments requested that the definition be revised to include properties that have a signed agreement of some kind that doesn’t specify the property is a participating property. Presumably the concern relates to agreements already signed that do not specify this. No changes were made in response to these comments. Before the rules existed, there were not any specific implications to being a participant in the generic sense of the word. However, under the rules, there are implications. For example, participating property owners will not receive the benefits of the noise and shadow flicker standards. In order to allow landowners to retain any rights they have had prior to these rules, the definition will remain as is and continue to “err,” if at all, on the side of the landowners. For the same reason, the definition was changed so that the only properties that are “automatically” participating properties under the rules are those hosting a wind turbine.
- Wetlands and Waterways – some comments requested that this term be defined. References to wetlands have been removed from the rule. See discussion under Wetlands and Waterways.
- Wind easement and wind lease – some comments suggested removing the definitions of wind easement and wind lease, as well as all rules relating to wind easements and leases. These have not been removed. See discussion under Lease and Easements.
- Small wind energy system – some comments suggested different size requirements for small wind. The rule has been modified to reflect the recommendations of the Wind Siting Council regarding the size of a small wind energy system.

A few comments suggested adding definitions for various words. No definitions were added other than as discussed below, because the meaning of the rules is sufficiently clear either as proposed or when considering other changes to the rule content as discussed below.

PSC 128.02 Applicability

Ambiguity

Some comments expressed concern about ambiguity regarding when the rules apply. Commenters were not sure whether the rules apply to a wind energy system if there is not an ordinance. Other comments indicated that the language about the commission's consideration of the rules in a review under s. 196.491, Stats., was confusing and open to misinterpretation. Changes have been made to clarify these areas.

Applications Already Submitted Prior to Rules

A comment expressed concern that it was not clear whether an owner could withdraw an application already submitted in order to come under these rules. No change was made, because an owner can always withdraw and resubmit their application, and a new submission of the application filed after the rules take effect would automatically make the application fall under these rules. The language the commenter referred to is intended to allow an owner who has already submitted an application to continue working with a political subdivision under previously established rules that the owner is willing to comply with even if they are not consistent with these rules.

Commission Authority

A commenter requested modification or deletion of the provision allowing the commission to give individual consideration to exceptional or unusual situations or apply different requirements than those provided in the rules. This change was not made. This provision appears in multiple commission rules, and has done so dating back to the 1950s. This flexibility is important given the very quick changes that can occur in the industries regulated by the commission, especially in a developing area such as wind energy. Further, this rule is unique in its inter-relationship between political subdivisions and the commission. Unusual complications may arise as a result of this. The provision is not open-ended. The commission must examine the facts and circumstances of an individual case and can only change requirements if there is an unusual or exceptional circumstance.

Existing Wind Energy Systems

Additional comments requested that the rules apply retroactively to wind projects that have already been permitted and approved. This change was not made, because it is not consistent with the intent of Act 40 or with the general provision that statutes and rules apply prospectively,

not retroactively. Other comments requested that the rules provide some form of compensation to people living near existing wind energy systems that do not comply with these rules. This change was not made because it is not consistent with the intent of Act 40 or with the general provision that statutes and rules apply prospectively, not retroactively. Additionally, it is not clear how these rules could accomplish what the commenter requested.

Tribal Land

A comment raised concerns with whether the rules would apply to wind generators on tribal parcels placed in federal trust. The rules do not address the permitting of wind turbines on tribal land. Native American governments hold regulatory authority for developing and managing their own resources and economies in partnerships with federal agencies such as the U.S. Department of the Interior's Bureau of Indian Affairs and the U.S. Department of Energy's Tribal Energy Program. As such, Native American governments can establish utility commissions and authorities and can form governmental and commercial subsidiary entities to develop, regulate, and manage their own resources. The comment also raised concerns with whether the rules would apply to wind generators on land owned by a tribe or tribe member in fee simple. The rules do not address the permitting of wind turbines on tribal land. The proposed rules do not address the issue due to the complicated jurisdictional questions that arise with differing mixes of ownership (tribe, individual Indian or non-Indian) and land status (trust or fee lands) requiring a case-by-case determination of jurisdiction. However, in the situation presented, Indian jurisdiction is strong when land is held by the Tribe or individual Indian on former reservations.

PSC 128.03 Political subdivision authority

Local Control

General comments were received that criticized the proposed rule for overriding local control, planning, zoning, and ordinances. Many commenters were part of local committees and town boards that worked extensively on local wind siting ordinances. They felt that after much study of the issues, local ordinances were crafted with strong community support and sensitivity to local concerns. Commenters were concerned that each locale is unique, and that statewide rules would not be sufficiently flexible to adequately take all issues and concerns into account. Also some comments discussed the desire for municipalities to develop and grow through extraterritorial zoning and transition areas; whereas, most rural areas tend towards farmland preservation. Act 40 required rulemaking to resolve the disparity between regulations generated by various government entities. Under some current wind siting ordinances, wind energy systems were regulated with very few restrictions and under other ordinances, they were very heavily regulated. The proposed rule provides a variety of issues that local subdivisions may include in an ordinance if they choose to have one. However, the choice of whether to have an ordinance, and which provisions to include, are left with the political subdivision. Sufficient notification requirements allow a wide range of entities to comment on the application, if there is an ordinance, and for their comments to be considered by the political subdivision. Established

complaint processes in the rule further extend local control to verify that the operation of an approved wind energy system remains compliant with the rules and any approval conditions. Areas of expertise that have always been effectively overseen by local governments such as roads, sewer, etc. are still within the jurisdiction of the political subdivision. And finally, the proposed rule does not prevent the political subdivision from negotiating voluntary contractual agreements that include additional concessions from a prospective owner for such things as property value protection plans, additional mitigation measures, or additional reporting requirements.

Working Lands, Farmland Preservation

DATCP also commented that the rules and plans should be consistent with the state's farmland preservation statute and the new "Working Lands" and farmland preservation laws. Considering the Working Lands and farmland preservation laws, the changes made as described under Political Subdivision Authority and Scope of Rulemaking address the issues raised about the Working Lands or farmland preservation laws, and no additional changes are necessary.

PSC 128.04 Enforcement

Some comments expressed concern about how the rules will be enforced. A provision was added to clarify that a political subdivision is responsible for enforcing its ordinance and permit provisions, and to describe how the commission will enforce its rules and orders under this chapter.

Rule Provisions – Subchapter II

PSC 128.10 Incorporating owner requirements into local ordinances

Comments were received that requested clarification of what rules apply at all times and what rules only apply if a political subdivision enacts an ordinance regulating wind energy systems. PSC 128.10 was drafted to address these comments.

PSC 128.105 Development of a wind energy system; Notice requirements

PSC 128.105 describes a series of notifications that an owner must give to the political subdivisions, landowners, emergency services and other entities. Recommendations included reducing the time prior to the application submittal when landowners and political subdivisions are first notified of a proposed wind energy system from 270/180 days to 90 days or less prior to application submittal. Instead of notifying all landowners within one mile of the planned wind energy system, some commenters suggested adjacent landowners only. Different notices were suggested for large versus small wind energy systems. Others wanted the notice requirements to be extended to an area up to 5 miles out and prior to any easement solicitations by a wind energy system owner.

Some commenters asked that the notice provisions be simplified. In the draft, there were separate notice provisions for political subdivisions and landowners; the DNR; the DOT and highway officials in a political subdivision; and Emergency Services personnel. The Department of the Army recommended that it be notified about large wind energy systems, and this was added.

All notice provisions have been revised to establish a more straightforward process. The timing of the initial notice was modified, to establish a reasonable timeframe for notice in light of the comments received. Consistent with the recommendations of the Wind Siting Council, the notice required for all relevant parties is now 90 days prior to filing an application.

The League of Wisconsin Municipalities recommended extending a general notice to municipalities near large wind energy systems. This change was not made, as a municipality outside of where the wind energy system is located would not have jurisdiction to review the application, and it is not common to require notice for neighboring political subdivisions for other types of development. Other towns recommended expanding the notification section to requiring owners to make a reasonable effort to comply with county and local requirements not specific to wind energy systems. This change was not made, as a reasonable effort is not what is required – if a political subdivision has requirements, they must be complied with. Advance notice requirements facilitate the political subdivisions' ability to enforce the requirements under these rules by working with wind energy system owners, exchanging information about specific local resources, and giving the political subdivision an opportunity to have input into the application before it is submitted. The political subdivision can use this advance notice to locate expertise at other levels of government, determine what outside experts/consultants will be needed, and determine how best to involve the public. The draft rules were revised to streamline the wording of these requirements to make it easier to understand how to comply with them.

In the proposed rule, language was included under the notice section about incorporating required DNR permitting items into siting decisions. This has been deleted because of comments that indicated it may cause confusion for owners regarding DNR requirements in other statutes or administrative code provisions that must be complied with and are not affected by these rules. Notice to the DNR is sufficient to facilitate information sharing about permit requirements.

Information in the notice section regarding developing an emergency plan has been moved out of the notice section and into a subsequent section. Information in the notice section about developing a transportation plan has been changed to require information in an application about planned road use, assessing road damage and paying for repairs. See discussion below.

PSC 128.11 Real property provisions

Comments from wind energy system developers and renewable energy advocates requested that the commission delete all provisions relating to wind leases and easements. Developers and renewable energy advocates believe the rules should not address these bilateral contracts, and claimed to be unaware of any unscrupulous practices by wind developers that would justify regulation of this relationship.

However, a large number of comments expressed concerns with the behavior of wind energy system developers and owners throughout the development process, and expressed the belief that wind energy system developers or owners deliberately mislead landowners when negotiating with them to sign leases and mitigation agreements. Commenters were concerned that developers exploit an "unfair advantage" in negotiating wind leases and easements with landowners that are not knowledgeable about wind development. Some provisions dealing with the content of leases and easements of real property have been retained in the draft to address these concerns while others have been dropped. Some commenters requested additional provisions addressing the content or negotiation process for wind leases, however these provisions were not added because they were unnecessary in light of other rule and legal requirements that wind energy system developer are subject to. Other provisions in Wisconsin law, such as consumer protection laws, address concerns of commenters about a wind energy system developer or owner deliberately misleading landowners.

Some commenters requested that the proposed rule provision establishing a 3 day right to rescind a wind lease be extended to anywhere from 5 days to 180 days. This draft provision was taken out in light of the fact that a landowner can take as long as they wish to initially sign a wind lease, thus giving him or her plenty of time to consult with a lawyer and consider whether he or she wants to sign .

Some commenters would like the rules to require general public notice or even political subdivision approval before any binding leases could be signed for wind development. This change was not made; there is no precedent in the context of any other energy infrastructure development for a general notification or approval requirement prior to private contracts being signed.

Wind developers and renewable energy advocates were particularly concerned with the proposed rule provision stating that the terms of a wind lease could not be required to be kept confidential except for financial terms. Other commenters wanted the rule to prohibit contracts from including confidentiality clauses altogether. The provision preventing confidentiality provisions in leases and easements has been removed from the rule to allow parties to mutually agree to confidentiality provisions. While documents that state there is an easement for a wind energy system must be filed publicly under the rules, the terms of leases do not.

PSC 128.12 Existing property uses

Renewable energy businesses would like to delete the proposed provisions of PSC 128.12, claiming it is unnecessary because of the provisions of s. 66.0401(1m), Stats. It was not deleted because the commission believes the provisions are necessary. This provision has been modified to make it consistent with other provisions allowing the provision to extend to planned uses for which publicly available plans are on file with a political subdivision within 30 days of the wind energy system owner giving notice.

PSC 128.13 (1) Siting criteria—Setbacks from residences, occupied community buildings and property linesMeasuring Setbacks

A comment requested that the provision regarding measuring setbacks be modified to indicate setbacks would be measured in a straight line from the wind turbine tower “at ground level.” This change was not made, as the setback distances are intended to be measured in a straight line regardless of topography, and measuring at ground level over uneven ground would not provide the setback distances intended.

Comments were received requesting both greater and lesser setbacks than the draft contained.

Greater Setback Requirements

Many comments from those favoring more stringent requirements state that setbacks of 1,000 or 1,250 feet from nonparticipating residences are generally inadequate. Increased setbacks proposed include distances of up to 12 miles, with many stating a preference for a setback of one-half or one mile. Many of the comments justify this increased setback on the basis of health concerns and property rights.

Many comments state a preference that setbacks be measured between the property line and the turbine, rather than the residence and the turbine. These comments state that the 1.1 times the turbine tip height setback from property lines currently included in the draft rule is not adequate, and suggest increased multipliers, such as 3.25 times the turbine tip height setback from nonparticipating property lines, 6.6 times the turbine tip height setback to nonparticipating residences, and 3 times turbine tip height setback for participating residences. Other comments propose specific distances that the turbines be located from property lines, including distances of up to several miles. Some comments suggest that voluntary waivers could be used to reduce the setback distance.

Property Rights

Many comments supporting increased setback requirements also mention concerns regarding 5th amendment protections against taking of property without compensation. This property rights

issue correlates well with preferences for setbacks that are measured to the non-participant's property line, rather than to the building or residence.

Conversely, many comments supporting reduced setback requirements also mention property rights, but in the context of the ability of a wind turbine host to use their property as they see fit.

Takings may be either physical or regulatory. Regulatory takings are those that do not involve physical invasions of land.⁴ The U.S. Supreme Court has held that when a government regulation results in a 100 percent reduction in the value of land, the landowner is entitled to just compensation unless the lost interest was not a part of the landowner's title before the regulation.⁵ When a government regulation reduces the value of land by less than 100 percent, the court will apply the "ad hoc test."⁶ When a court applies the ad hoc test, it will consider "the economic impact of the regulation on the claimant and, particularly, the extent to which the regulation has interfered with distinct investment-backed expectations" as well as "the character of the governmental action."⁷ In Wisconsin, a government action "must deny the landowner all or substantially all practical uses of a property in order to be considered a taking for which compensation is required."⁸ A regulatory taking occurs when regulation is so onerous or complete that it is the equivalent of government appropriation. "A restriction can severely restrict land use and adversely affect the property's value without depriving the owner of substantially all use of the property."⁹ In looking specifically at the issue of wind energy systems, the 7th circuit court found there was no taking under the U.S. Constitution when the county approved the construction of a turbine on adjoining land.¹⁰ The 7th circuit court stated that not all decisions that diminish an owner's potential uses, or compel a less valuable use, are takings.¹¹ While wind turbines may affect neighboring properties, they do not deny all practical uses of that property and, so, are not takings.

Requests for Expansion of Setbacks

Comments were received that requested setbacks not only from existing residences but also property where no residence has been constructed but is zoned residential or has the potential for a residence to be constructed at some point in the future. Some comments suggested that additional types of buildings should be added to the setbacks from "occupied community buildings." See discussion above under Definitions. These changes were not made. The rules already establish maximum safety setbacks from nonparticipating property lines, which apply to any property whether or not it will be residential at some point in the future and whether or not it

⁴ *Hoepker v. City of Madison Plan Comm'n*, 209 Wis. 2d 633, 651, 563 N.W.2d 730, 373 (1997). Also see *Lucas v. S.C. Coastal Council*, 505 U.S. 1003 (1992).

⁵ *Lucas*, 505 U.S. 1003 (1992).

⁶ *Penn Central Transp. Co. v. New York City*, 438 U.S. 104 (1978).

⁷ *Penn Central Transp Co.*, 438 U.S. at 124.

⁸ *Zealy v. City of Waukesha*, 201 Wis. 2d 365, 374, 548 N.W.2d 528 (1996). Also see *Eberle v. Dane County Bd. of Adjustment*, 227 Wis. 2d 609, 595 N.W.2d 730 (1999).

⁹ *Helnore v. Department of Natural Resources*, 280 Wis. 2d 211, 219-220, 694 N.W.2d 730, 735 (Ct. App. 2005).

¹⁰ *Muscarello v. Ogle County Bd. of Com'rs*, 610 F.3d 416, 422-422 (7th Cir. 2010).

¹¹ *Muscarello*, 610 F.3d at 421.

has any other structure on it. To establish additional setbacks to a nonparticipating property line because some residence could be constructed there in the future is overbroad, as there is no assurance that any residence would ever be constructed, so establishing a setback for such an uncertainty is inappropriate. The noise and shadow flicker standards may require that a turbine be placed further away than the safety setback distance. A change was made to the rule to the definition of a residence to incorporate residences not yet constructed but for which a building permit application has been received prior to the wind energy system giving general public notice of the planned wind energy system.

Lesser Setback Requirements

A number of comments were received that support smaller setbacks to maximize the potential for wind development. Many comments state that 1,000 feet or less from residences, including nonparticipating residences, is a reasonable limit. Several comments from potential host landowners state that the setback from roads should be reduced, to distances as low as zero. These possible host landowners state that this reduction is necessary to avoid loss of farmland and increase the number of turbines that could be located on the property.

The Wind Siting Council recommended establishing setbacks for safety only, and leaving other issues, such as noise and shadow flicker, to be addressed through performance standards. Specifically, the Council recommends allowing only safety-related setbacks from nonparticipating property lines, participating residences, nonparticipating residences and occupied community buildings. The Council's recommendations were paired with its recommendations for performance standards for noise and shadow flicker.

For large wind, the Council recommends that measuring from the center of the turbine, these safety setbacks be 1.1 times the maximum blade tip height of the wind turbine. For small wind, measuring from the center of the turbine, the Council recommends these safety setbacks be 1.0 times the maximum blade tip height of the wind turbine. The Council recommends that the safety setbacks from a nonparticipating property line should be waivable by the property owner; that for large wind, safety setbacks from a residence (participating or nonparticipating) or occupied community building should not be waivable; and that for small wind, safety setbacks from a residence (participating or nonparticipating) or occupied community building should be waivable.

Setback Distances Included in Rule

The setback distances that a political subdivision may adopt under the draft rule have not been modified. Reducing the level of setback distance to something significantly less than the setbacks used in previous commission cases puts too great of a burden on a political subdivision and landowners to prove that the performance standards a political subdivision may adopt would require a wind energy system to be sited farther than 1.1 times the height would imply. The maximum setbacks from nonparticipating residences and occupied community buildings that a political subdivision can establish have been left at 3.1 times the maximum turbine blade tip

height. This strikes a balance between what the Council recommended and the opinions expressed by the public. If adopted by a political subdivision, the noise and shadow flicker performance standards established in these rules will, in effect, require most wind energy systems to be sited at a distance of more than 1.1 times the turbine height from a nonparticipating residence or occupied.

Shadow flicker from wind turbines is not uniformly cast in all directions; rather shadows are predominantly cast east and west of a turbine with essentially no shadowing to the south.

PSC 128.13 (1) Siting criteria—Setbacks from wetlands and waterways

A few comments were received suggesting elimination of the setback provisions for wetlands, lakes and waterways. These comments indicate that DNR permit requirements are already in force to protect these resources. As such, setback requirements from wetlands, lakes and waterways have been removed from the draft rule.

PSC 128.13 (2) Siting criteria

Land Use Planning

Some comments requested changes to the provision stating that a political subdivision may not establish long-term land use planning requirements or practices that preclude the construction of a wind turbine or a wind energy system within the political subdivision's jurisdiction. Commenters interpreted this provision as conflicting with s. 66.0401(4) (f) 2., Stats., which allows a political subdivision to deny an application if the proposed wind energy system is in an area primarily designated for future residential or commercial development under a comprehensive plan as described in that statute. While the provision does not conflict with the statutory provision, clarifying language was added. The statute addresses the denial of a wind energy system application on a case by case basis. The rule provision is a prohibition on establishing overarching long term land use requirements that completely prohibit any wind energy system from ever being constructed in the political subdivision, whether in areas designated for future residential or commercial development or any other area. Other comments expressed an interest in conditioning any wind energy system application review on showing balance or consistency with any other land use planning activities. No change was made, as this suggestion is not consistent with the legislative history of a political subdivision's authority to restrict the installation or use of a wind energy system.

Airports

A few comments were received suggesting that additional setbacks from private use airports should be allowed, and some comments that such setbacks should not be allowed. In general, federal, state and local regulatory airspace protections are for airports and heliports that are for public use but not private use. Wisconsin statutes do allow political subdivisions to apply zoning restrictions in the vicinity of private use airports but it appears that to date no political

subdivisions have applied such zoning authority to regulate other structures or activities. Therefore, no changes have been made to the draft rule in response to these comments. The proposed rules do not include any provisions allowing a political subdivision to protect airspace near private use airports, except for a provision allowing airspace protection near private use heliports at medical facilities, recognizing the public safety benefits of medical helicopter use. The wording for this exception has been clarified.

PSC 128.13 Siting criteria—Other

A number of comments suggested that the rules should be modified so that wind energy systems could only be sited in specific areas, such as only on state-owned land, only in open spaces, only in urban areas, or only offshore in the Great Lakes. These changes were not made because they are outside the scope of these rules and not consistent with the legislative intent or the history of a political subdivision's authority to restrict the installation or use of a wind energy system.

Other comments suggested that a political subdivision should be able to set aside a specific area for wind development to occur. This change was not made. See discussion under s. PSC 128.13 (2) (a).

PSC 128.14 (1)–(3) Noise criteria

Many comments were received regarding provisions of the draft rule relating to noise, and many expressed concern regarding noise impacts from wind energy development near residences. Many comments supported more stringent noise limits, and expressed concern about turbine noise as an annoyance and a potential health threat. Many of these comments expressed a common concern that wind turbine noise presents the potential for adverse health effects, particularly those resulting from sleep deprivation caused by turbine noise. Many comments viewed a fixed 50 dBA limit as inadequate or questionable. Suggested limits for a lower noise standard ranged from allowable increases of 0 dB over existing ambient sound levels, to a 40 dBA limit at night, and a limit of 35 dBA appears to be preferred by a small majority of commenters. Some comments propose that the noise limit be based on some increment over the ambient. At least one commenter suggested 5 dB over ambient as the appropriate level.

Most comments from those in favor of less stringent noise requirements support a 50 dBA limit with no diurnal or seasonal changes. Some comments propose that the noise limit be increased to 55 dBA.

In the most recent Commission wind siting case, Glacier Hills Wind Park, the Commission established a noise standard of 50 dBA and 45 dBA seasonally at night; this was the standard included in the rule draft. The Wind Siting Council recommended a modification to the draft rule to establish a year round nighttime limit of 45 dBA, instead of only using 45 dBA as a seasonal nighttime requirement.

There is information that tends to support a nighttime noise limit lower than a 45 dBA seasonal limit, perhaps as low as 35 dBA year round. However, there is no definitive evidence to support a specific noise threshold. The rule has been modified to reflect the recommendations of the Wind Siting Council. The maximum setback of 3.1 times the turbine blade tip height also takes into account other concerns, such as visual appearance. Setback distance can vary according to weather, topography, and other modifying factors.

PSC 128.14 (4) Noise criteria—Compliance

One comment was received regarding the section of the draft rule requiring possible noise testing if a complaint is received regarding the nighttime noise standard. The commenter suggests that the number of tests required to demonstrate compliance with the nighttime noise standard be limited. Presumably, the commenter interpreted the draft rule as requiring additional studies each time an individual filed a complaint. Limiting the total number of allowable noise tests would restrict the ability to react to specific circumstances encountered in the field since noise levels at one location could vary from those at another. Such a restriction could also prevent additional noise testing when turbines become louder from age or poor maintenance practices. Finally, such a restriction could limit the ability of any local complaint resolution committee to address the complaint. However, in order to help avoid abuse of the ability to request testing, a limit was added so that if testing has been done in the previous 2 years at a particular location and it showed the system is in compliance, additional testing cannot be required.

PSC 128.15 Shadow flicker

Several comments were received regarding the shadow flicker provisions. Specific criteria suggested by those supporting more stringent requirements for shadow flicker standards ranged from a limit of 0 to 30 hours per year. Comments received from those supporting more stringent standards for levels at which mitigation must begin ranged from 0 to 25 hours per year. Some comments state that the standards should apply to shadows cast on any part of nonparticipating properties, rather than only nonparticipating residences, and that office buildings should be eligible for mitigation.

Specific criteria suggested by those supporting less stringent requirements for shadow flicker standards ranged from 40 hours per year to removing all requirements regarding shadow flicker from the rules. Additional comments by those supporting less stringent requirements recommend that shadow flicker requirements apply only to existing nonparticipating residences and that the rule be clarified that computer modeling be done on the basis of weather-adjusted annual averages.

The Wind Siting Council recommended an absolute standard of 40 hours, and that mitigation be required beginning at 20 hours per year.

Based on the commission's past experience with wind energy systems and in light of the comments received, the draft rule provisions allowing a political subdivision to require no more

than 30 hours per year and mitigation for 20 hours or more appear reasonable and achievable. Therefore, no changes to the draft rule were made on the basis of comments received on the shadow flicker standards except that occupied community buildings may now also be included in the shadow flicker performance standards and mitigation requirements.

Wind energy system developers and renewable advocates indicated they want the commission to remove language that allows a landowner to be able to choose a reasonable mitigation method. The draft rule reflects established commission practice and in light of other concerns expressed about shadow flicker, it has not been changed.

PSC 128.16 Signal interference

Comments identified several additional communications technologies that were not addressed by the draft rule. These technologies include: aviation radar, global positioning systems used in agricultural applications, weather radar, and wireless internet service used in a variety of applications including farm, government and military applications. Some comments applied specifically to communications used for emergency response purposes. Other comments expressed interest in protecting landowners or others from signal interference caused by wind development. In addition, several comments were received from wind developers that proposed that the requirements in the draft rule be lessened or eliminated.

Based on these comments, new definitions for “commercial communications” and “personal communications” were added to describe which technologies are addressed by the rules, and for what purposes the technologies are used. In addition, the sections of the draft rule regarding communication interference were combined and changed to apply to all communications technologies as defined by the rule.

As described in PSC 128.50(2)(b) the commission may establish standard mitigation protocols regarding communications interference, as defined in this chapter, based on available technology. The commission may periodically adjust or modify these mitigation protocols. As new technologies become available, under the rule a political subdivision may, based on the commission’s protocols, require additional mitigation in cases where previous attempts are not completely effective.

PSC 128.17 Stray voltage

Several comments were received suggesting that the rule be clarified in several areas regarding stray voltage testing including: financial responsibility for testing and remedial action, provision of results of testing, and the entity performing the testing. Clarifying changes were made to the draft rule on the basis of these comments.

Additional comments were received suggesting that the stray voltage section also include the following: specific qualifications for testing entities, requirements for notification of the electric distribution company of testing, including a definition of stray voltage, limiting required testing

to dairy operations, and prescribing acceptable remedies to problems identified during testing. No changes to the draft rule were made on the basis of these comments because these areas are already addressed either by the rule or by the commission's stray voltage testing protocol. Additionally, some of the suggested changes were not made because they would restrict the ability to adapt the testing protocol to specific circumstances encountered in the field.

Several comments were received that favored expanding the applicability of the section of the draft rule regarding stray voltage to include "electrical pollution." Some specific areas suggested include objectionable currents, ground currents, and static discharge. No changes were made to the proposed rule on the basis of these comments, because the commission has no specific standards in these areas, nor are there existing standards that would be applicable to wind energy development.

Some comments suggested that small wind facilities be exempted from the requirements of the draft rule relating to stray voltage. Small wind facilities would most often be connected directly to the same electric distribution system serving the dairy and confined animal operations, rather than to the electric transmission system. No changes to the draft rule were made on the basis of these comments because small wind facilities could create stray voltage-related impacts.

One comment was received suggesting that the draft rule be changed to make the testing optional, and required only if requested by the dairy or confined animal operation. A change to the draft rule was made to clarify that the political subdivision could not require testing where farmers do not want testing to be done. A decision to conduct stray voltage testing on the electric distribution system should be at the direction of the commission after consultation with the farm owner. Testing on these customer premises will depend on acceptance by the customer and can be determined on a case-by-case basis.

PSC 128.18 (1) Construction and operation—Physical characteristics

Comments requested modification of several provisions. A comment requested the commission remove language from the rules requiring turbine owners not display advertising or decoration and ensure a neutral turbine finish. The requirement regarding a neutral finish has been revised to address concerns that its original wording may be subject to misinterpretation.

Comments requested removing provisions regarding posting signs at every access road intersection. However, other comments requested more specifications about the signs that should be posted. The rule has not been changed, as appropriate signs are needed to inform the public in the event of an emergency. The rule requirement is reasonable in light of the commission's knowledge of similar signs at existing wind developments in Wisconsin. The draft is reasonable and achievable in light of the comments received.

Two comments noted that poorly marked meteorological towers can be a hazard to aerial applicators and requested that standards for improved marking be included in the rules. To

address this concern, a provision has been added to require that guy wires for wind energy systems or meteorological towers be marked.

PSC 128.18 (2) Construction and operation—Electrical standards

A comment requested removal of the provision requiring an owner to inspect overhead collector circuits to ensure third parties do not attach other cables to the collectors without proper grounding. This provision has not been removed, as it addresses a common practice that can cause stray voltage issues. The rule provision establishes a mechanism to monitor the facilities for the purpose of preventing any stray voltage problems that could arise.

PSC 128.18 (3) Construction and operation—Construction, operation and maintenance standards

A comment requested strong and detailed rules regarding wind turbine operation and maintenance. Other comments requested deletion of several provisions.

A comment requested modification of the requirement to restore the project area to preconstruction condition to make the requirement be “to the extent feasible.” This change was not made, as it does not clarify the rule.

A commenter requested that the rule specify insurance should be maintained in an amount reasonably determined by an owner. This change was not made, as it would not clarify the rule or provide any more certainty about how to implement the rule.

A comment requested clarification of the provision requiring an owner to ensure a turbine is not climbable. Clarifying changes have been made.

PSC 128.18 (4) Construction and operation—Emergency procedures

One comment was received suggesting combination of the list of emergency first responders and air ambulance services required to be notified of a proposed wind energy development. The draft rule was revised to reflect this suggestion, in order to make the rule more understandable.

One person commented that local responders should review wind energy system plans after initial notification so that they are better aware of the technical issues behind potential hazards in order to effectively respond to these hazards in the case of an emergency. A change was made to include emergency plans as part of an application for approval to facilitate additional review. A comment also requested removal of the provisions relating to specific emergency procedure planning and coordination. Other comments expressed interest in the rule addressing emergency planning in significant detail. The provisions requiring specific planning and coordination activities were not removed, due to the interests of commenters in ensuring adequate emergency services provision.

One person commented that the 24-hour window for an owner of a wind system to notify the political subdivision in the event of an emergency should be shortened to 1 to 3 hours so that authorities and first responders can react promptly. The commission believes 24 hours is reasonable, so no change was made. No changes to the draft rule were made on the basis of this comment, because the draft rule requires notification of the political subdivision, not emergency personnel. The owner would, presumably, immediately notify the appropriate fire, police, or other first responders of the emergency according to their emergency plan.

Changes were made to clarify and streamline the requirements in the proposed draft and to eliminate repetitive provisions.

PSC 128.19 (1) Decommissioning—Requirement to decommission

Comments were received regarding the time periods associated with required decommissioning of a wind energy system. There were several comments asking for clarity about what would happen if there were long periods of time with no apparent production of energy and no movement to use or remove the facilities. One comment suggested that the rules should allow for 24 months with no production to consider a wind energy system as being at the end of its useful life. Comments also suggested that this should be a rebuttable standard, not irrebuttable as currently stated in the rules. Another comment was that decommissioning should not be required if the site were likely to be a wind system in the future. Other commentators suggested adding additional reasons for granting extensions of the time to decommission, including a force majeure type situation or if the system is undergoing repowering or upgrading. There were comments suggesting that the periods for decommissioning should be changed to 12 and 24 months, or 9 and 24 months.

Changes were made to these rules in response to comments. The time frames are now stated in days rather than months for more specificity. The presumption that a wind energy system is at the end of its useful life was lengthened to 360 days, from 6 months. The owner can apply for extensions of 180 days each. These extensions can be renewed, if the owner demonstrates that the wind energy system will be returning to production in the future. A political subdivision cannot force the decommissioning of a wind energy system that is likely to return to production, or is idle in anticipation of re-powering or upgrading. A force majeure situation is already addressed under the existing provisions. The required showings for an irrebuttable assumption that a wind energy system is at the end of its useful life coupled with the ability to file a complaint with the commission for an action by the political subdivision, now offer adequate protection to a wind energy system owner. Comments on the time frames for a rebuttable and irrebuttable presumption of a system being at the end of its useful life were considered, and the timeframes were changed to 360 and 540 days.

PSC 128.19 (2) Decommissioning—Decommissioning review

A comment requested that this provision be deleted. It was not deleted because in order to determine compliance with the decommissioning provisions, a political subdivision will need to establish a process for reviewing such compliance. This appears reasonable given concerns in other comments about making sure that decommissioning requirements are satisfied.

PSC 128.19 (3) Decommissioning—Financial responsibility

There were several comments regarding the need to establish a detailed process for this rule requirement. Some suggested that financial assurance be required prior to beginning construction or the issuing of a permit by the political subdivision. The suggested amounts for a required financial assurance ranged from approximately 10% of the cost per turbine to 100% of the project cost or amounts that would be “appropriate” for covering the removal and restoration costs. The rules have been revised to specify the types of financial instruments that are considered reasonable to meet the requirement. The rule now also clearly states the statutory requirement that the owner maintain on-going proof of their ability to meet the costs associated with decommissioning. Requiring a wind energy system owner to provide an assurance is at the discretion of the political subdivision, and it may require assurance up to the amount up to the estimated necessary costs of decommissioning. Financial assurance could be required prior to commencing major civil construction activities, such as blasting or foundation construction, but not prior to the issuing of the permit or the beginning of any construction activity. The amount of the financial assurance can be reviewed every 5 years to ensure that it is still reflective of expected costs, and a substitute instrument can be required if there are reasonable doubts regarding the continued viability of the previously-submitted financial assurance.

PSC 128.19 (4) Decommissioning—Site restoration

There were comments received requesting specific rules regarding restoration of the turbine sites at the point of decommissioning. Commenters were interested in seeing that the sites were returned to their original condition. Other comments requested flexibility to respond to a property owner’s request for something different than the original condition, for example, a request for changes in land slope or contour. One commentator suggested that DNR staff should be required to supervise any restoration activities.

The rule language has been modified. It now reflects that the restoration should comply with any DNR requirements, though it does not provide for direct DNR oversight of all restoration activities, as DNR can use their existing authority to address any concerns. The rule now also allows for the restoration to be responsive to modifications requested by the affected landowner.

PSC 128.19 (5) Decommissioning—Decommissioning completion

A comment recommended that this provision be deleted. It was not deleted because it is a reasonable way to facilitate any action that a political subdivision needs to take to ensure compliance with decommissioning requirements. This appears reasonable given concerns regarding restoration and making sure that it is achieved.

Rule Provisions - Subchapter III**PSC 128.30 (1) Application and notice requirements—Application required**

Some comments requested clarification as to when various rule provisions apply. A provision was added to clarify that an application is always required under this chapter, regardless of whether the political subdivision has an ordinance regulating wind energy systems. This provision was added to ensure consistency with s. 66.0401 (4) (a)2., Stats.

PSC 128.30 (2) Application and notice requirements—Contents of an application

Comments were received that suggested modifications to the required application contents, either suggesting more or fewer items. Section PSC 128.50 states that the commission will establish detailed application filing requirements to be used by political subdivisions. These will be more extensive than those summarized under PSC 128.30 (1). The list of application contents in the rule was not removed because the items are necessary to ensure that a political subdivision has the flexibility to fully understand the project under review. Additional detail was added to provide more explanation in the rule regarding how to comply with the requirements.

A few commentors expressed concerns about the cost and timeliness for repairs to roads damaged by heavy construction equipment and safety issues associated with increased traffic. Recommendations included the use of an independent third-party, the setting of an appropriate bond amount to be used for the repair of roads damaged during construction and decommissioning. One other commenter suggested language changes to the transportation plan.

Road use issues are dealt with either by the Department of Transportation or the political subdivision using its authority unrelated to regulating a wind energy system. The requirement to file a formal transportation plan as part of the application submitted to the political subdivision has been replaced by a requirement that information about planned road usage, potential road damage and repair costs be included in an application.

PSC 128.30 (5) Application and notice requirements—Notice to property owners and residents

Comment from renewable energy businesses and organizations suggested that only adjacent properties should be notified of the proposed project. Another comment, while not finding the notification requirement objectionable, suggested that the political subdivision should provide

assistance in identifying the appropriate landowners. The Wind Siting Council recommended including notice to landowners within 1 mile for large wind energy systems.

While Act 40 does require notification of an application filing to adjacent landowners, this is a minimum and not a maximum requirement. It is important that potentially impacted residents are sufficiently informed of the proposed project so as to be effective participants in the review process. Furthermore the owner will need to work with various entities throughout the review process to ensure a complete and accurate application. The content of this proposed rule was changed to reflect the Wind Siting Council's recommendation that notices go out to landowners within one mile.

PSC 128.30 (7) Application and notice requirements—Joint application review process

The rule sets out timelines for when an owner must request a joint application review process when more than one political subdivision is involved and the timelines for when the political subdivisions must respond and set up the procedure. One comment suggested a change to these timelines. The rule's timelines are meant to fit in with the statutory local procedures provisions. The suggested change to this section of the rule would make the political subdivision process unworkable, so no change was made.

PSC 128.31 (1) Application completeness—Complete applications

The renewable businesses and organizations made the recommendation that a change in the location of a wind energy system facility should not be a basis for determining an application incomplete by the political subdivision. The content of the rule remains unchanged because a completeness determination must be based on the filing requirements, and a change in turbine location would be dealt with under s. PSC 128.35.

PSC 128.31 (2) Application completeness—Requests for additional information

Comments expressed concern that the provisions allowing a political subdivision to request additional information related to a wind energy system that was not specifically described in the rule would lead to unreasonable requests and unnecessary delay of an application. No change was made, because the provisions already limit the owner's required responses to reasonable requests.

PSC 128.32 (1) Political subdivision review of a wind energy system—Approval by political subdivision

One comment expressed concerns that wind energy system applications submitted prior to the effective date of these rules, and therefore not subject to these rules, may be prevented under these rules from resubmitting their application after the effective date. The rule does not prevent an owner from removing an existing application from consideration and submitting a new

application. Therefore, although the language has been clarified, the meaning remains unchanged.

PSC 128.32 (2) Political subdivision review of a wind energy system—Standard for approval

Standard of Review

A comment requested that the standard for the political subdivision’s decision be modified to allow the political subdivision to consider whether the proposed wind energy system is in the public interest, considering individual hardships. This change was not made, as it is not consistent with the legislative history of a political subdivision’s authority to restrict the installation or use of a wind energy system. See *Ecker Brothers v. Calumet County*, 321 Wis. 2d 51, 772 N.W.2d 240.

A comment requested changing the standard for review by a political subdivision to require the political subdivision to approve an application for a wind energy system if the system “substantially complies” with the requirements of this chapter. This change was not made as it is not consistent with the legislative intent of Act 40 to have these rules establish uniform requirements for review of a wind energy system by a political subdivision. A standard based on “substantial compliance” would not create uniformity, it would create uncertainty, and therefore has not been added.

PSC 128.32 (4) Political subdivision review of a wind energy system—Effect of ownership change on approval

One comment recommended that the provision regarding a change of ownership apply only to large wind energy systems. Small wind has been addressed in a new subchapter. See Small Wind Energy Systems, Subchapter VI.

PSC 128.32 (5) Political subdivision review of a wind energy system—Fees

Comments from counties, towns, and from various renewable energy businesses and organizations found the fee cap in the rule to be set either too low or too high. Furthermore, local government entities commented that it may be difficult and/or cumbersome to verify the cost of the proposed wind energy system, upon which a fee cap was based. Alternately, the League of Wisconsin Municipalities and the Wisconsin Towns Association recommended that the fee language be replaced with a reference to s. 66.0628 (2), Stats., which establishes other requirements for fees set by a political subdivision. Renewable energy businesses commented that any overpayment of fees should be reimbursed to the owner. Other comments for this subsection objected to the annual fee prohibition and argued that the fee notification timeline should be increased.

The rule was revised by omitting fee caps and adding additional detail. A note now refers to existing s. 66.0628(2), Stats., which deals with fees imposed by political subdivisions. Furthermore, the political subdivision is only allowed to require 50 percent of the fee or reimbursement from the owner in advance; therefore, reimbursement of excess payments should not be an issue.

PSC 128.33 (1) and (2) Political subdivision provisions

Natural Resources

One recommendation suggested limiting a political subdivision's ability to request information about DNR recommendations and wildlife studies to only those areas over which DNR has permitting authority. Many comments expressed that natural resources recommendations from state and federal experts can be important in mitigating proposed project impacts. The proposed rule language was revised to allow a political subdivision to request information about non-binding recommendations from any state or federal agency. Additionally, a revised provision allows the political subdivision to require the owner to cooperate with any studies the state may do concerning the effects of wind energy systems.

A comment stated that the rule does not give sufficient authority to the political subdivision to require the implementation of DNR recommendations. It is beyond the scope of this rule to provide enforcement powers for recommendations for which another agency has no legal authority to require compliance. Act 40 directed the DNR to evaluate its authority and come back to the legislature if DNR determined that it needed more authority "to adequately protect wildlife and the environment from any adverse effect from the siting, construction, or operation of wind energy systems." Political subdivisions are allowed to request information on how DNR recommendations are incorporated into a proposed project.

PSC 128.33 (3) Monetary Compensation to Nonparticipating Residences

One recommendation suggested removing the possibility of payments to nonparticipating residences as providing overly broad discretion to political subdivisions. Due to the impacts that may be incurred by nonparticipating residences, this rule remains unchanged.

PSC 128.33 - Provisions deleted from draft

Roads

One recommendation suggested language changes to the transportation plan provision. This provision was removed, but a requirement was added in s. PSC 128.30 that requires an owner to provide information in an application about planned road use, possible road damages and road repairs.

Groundwater and Blasting

Comments specified concerns over a growing and well-documented problem of contaminated private drinking water wells in the northeast region of the state. Submitted documents show that the karst geology of the escarpment has highly fractured rock and thin soils which in many cases allow surface water to contaminate the groundwater. Current town and county wind and manure spreading ordinances require pre- and post- testing of area drinking water wells, blasting restrictions, manure spreading restrictions/prohibitions, and construction setbacks from known karst features. Members of the public were concerned that the construction of the turbines and the length of underground cable that would be trenched as part of large wind energy systems would worsen the existing groundwater contamination problem.

The provision specifically authorizing a political subdivision to address blasting has been deleted to avoid confusion regarding a political subdivision's authority under these rules in areas that are historically regulated elsewhere and not specific to wind energy. DNR and DATCP regulate some aspects of ground and surface waters, as well as having the expertise on these issues. Counties also have expertise in management of this issue. In addition to land spreading ordinances, counties have worked to keep landowners involved and informed and have worked to encourage good management practices to prevent worsening of the groundwater contamination. Advance notification specified in s. PSC 128.105 provides opportunities for political subdivisions to solicit advice from appropriate experts so that the groundwater risks from a proposed project can be evaluated. Section PSC 128.33 (1) additionally allows the political subdivision to request information on how agency recommendations are incorporated into the proposed project. Additionally, shoreland zoning which helps protect surface waters remains under the purview of local government.

Agricultural Mitigation Plan

The Department of Agriculture, Trade and Consumer Protection (DATCP) commented that the rules should require wind energy system owners to create an "Agriculture Mitigation Plan" similar to what Wisconsin Electric Power Company created for the Glacier Hills Wind Farm project that was reviewed and approved by DATCP. This plan would include steps to avoid disruption of potentially affected agricultural production areas as well as long-run steps to restore disturbed areas back to productivity. While this type of plan was voluntarily established for a single project that is subject to the commission's jurisdiction (and consequently much larger than the projects that will come under these rules), it is not appropriate to require such a plan for all wind energy systems under the jurisdiction of political subdivisions. There is no existing legal requirement to create a plan, and establishing such a requirement is outside the scope of these rules. Instead, a change was made to the rule to allow a political subdivision to request information about how DATCP recommendations regarding the loss of agricultural land have been addressed.

Prohibited Provisions

The subsection on prohibited provisions was deleted due to the addition of PSC 128.03 (1) described above under political subdivision authority. Comments on items previously included in the prohibited provisions section are discussed below.

Prohibited Provisions - Property Values

Comments submitted by members of the public and government officials site studies, report individual experiences, and express fears that large wind energy systems have a negative impact on property values. Reasons cited for the anticipated or claimed decrease in property values included noise, shadow flicker, aesthetic, and other impacts. The property value impacts described included not being able to get a real estate company to list a property, a greatly reduced number of interested buyers, an increased length of time required to sell a property, and offers well below the appraised value of the property. Concerns were expressed about individual hardships because a majority of an individual's wealth may be invested in the person's home and property. Existing property value studies contain insufficient data to quantify property value impacts to properties one-half mile and closer to turbines.

Recommended solutions included greater setbacks, property value protection plans, adjustment to property taxes, and a wind energy system owner fund set aside to pay legitimately-affected homeowners.

There is some evidence that a well-thought-out bi-lateral property value protection plan contract could be of benefit to both non-host property owners and wind energy system owners to balance individual property rights with community interests and goals. It seems reasonable to allow political subdivisions to negotiate the terms of a property value protection plan to protect their constituents.

The proposed rules do not prevent a political subdivision from negotiating a mutually agreeable property value protection plan through a bi-lateral contract with a wind energy system owner.

The provision allowing a political subdivision to require an owner to provide information to track property value impacts was deleted because commenters were not interested in the avenue the provision was intended to provide.

Prohibited Provisions - Aerial Spraying Compensation

A number of comments were received identifying economic costs to farmers when wind turbines are built near fields that use treatments applied by aerial application. Vegetable producers in particular make extensive use of aerial applications. The comments recommended that nonparticipating farmers be compensated for increased costs or reduced production/value of crops due to nearby construction of wind turbines interfering with aerial spraying. The comments recognize that while a specific compensation system has not yet been developed, the

requirement to compensate for losses is still necessary. Due to the lack of a clear way to implement a provision that would require compensation, such a requirement has not been added to the rule. However, the commission will refer this issue to the Wind Siting Council and ask the Council to work with DATCP and others to develop a compensation proposal.

PSC 128.34 (1) Record of decision—Recordkeeping

The Calumet County Planning Department commented that the record retention requirement in the rule conflicted with existing state statutes. The commission did not find any conflicts and, therefore, the rule has not been changed.

PSC 128.34 (3) Record of decision—Post-construction filing requirement

Comments requested that this provision be deleted and expressed concern that the requirement is onerous. Other commenters did not object to the content of the rule but rather that the timeline for the filing was too short and that the rule should apply to all facilities above and below ground.

This provision is designed to enable a political subdivision to verify compliance with these rules and specifically, the decommissioning requirements. Timely, accurate as-built information is necessary to verify all permit conditions and requirements have been met. The rule was modified to clarify that information is required for all system facilities, but otherwise remains unchanged.

PSC 128.35 Modifications to an approved wind energy system

A comment recommended including language to specify that the term, “material change” would exclude changes to turbine model, wind energy system facility locations, and turbine locations that do not exceed 500 feet. Changes to the location and type of facilities in a wind energy system may alter the projects impacts in a material way. The political subdivision has the authority to determine if changes to the application result in a material change which requires prior written approval. It is not necessary or appropriate to further define a “material change” in the rules at this time, so no change was made.

PSC 128.36 Monitoring compliance

A comment was received suggesting that political subdivisions be allowed to require a third-party inspector, to be paid for by the owner, to monitor compliance with permit requirements during construction. This inspector would report to the political subdivision, and, if desired, to state permitting authorities. A new provision incorporating this suggestion was added to the rule.

Rule Provisions - Subchapter IV**PSC 128.40 Complaint Process**

There were comments received regarding the need for a clear, specific complaint process, including an appeal process and that cost should be borne by the wind energy system owner. There was a suggestion that 45 days was too long of a period for first steps in complaint resolution. The alternative suggested was to have an initial contact with the complainant within five days and reach a final resolution within 14 days.

It should be noted that there were two sections in the rules dealing with complaints in detail. One in Subchapter II dealt with owner requirements and another in Subchapter III dealt with the political subdivision procedures. The language of the rules was modified in both and combined into a new Subchapter IV. The rule language now clearly sets out that the complainant must receive an initial response to the complaint within 30 days and the complaint should be resolved within 45 days. The suggested alternative requiring resolution within 14 days is unrealistic for all complaints because of the complexity of issues that sometimes must be addressed. The rule contains language that requires the wind energy system owner to bear the cost of complaint investigations.

The Wind Siting council recommended additional notice of complaint resolution processes, and this has been added in ss. PSC 128.40 (2) (b) and 128.42.

Rule Provisions - Subchapter V**PSC 128.50 (1) Standards established by the commission—Detailed application filing requirements**

A few comments expressed concern that application filing requirements that are not itemized in the rule creates uncertainty or potentially burdensome requirements. No change has been made to the provision allowing the Commission to establish detailed filing requirements. The commission has extensive experience reviewing detailed wind energy system applications and intends to provide practical technical guidance for political subdivisions and applicants reviewing wind energy system applications through the detailed application filing requirements contemplated by this provision. This will assist political subdivisions in understanding the technical issues presented by proposals for wind energy systems to facilitate reasonable review and decrease the need for appeals to the Commission.

PSC 128.50 (2) Standards established by the commission—commission protocols

One comment received encouraged the commission to consider whether measurement protocols would be burdensome or costly to the owner of the wind energy system, and encouraged the commission to allow for some flexibility in how standards are verified.

Section PSC 128.50(2) was added to the rule to clarify the Commission protocol process. This section provides for the commission to periodically create and revise measurement, compliance, and testing protocols. Periodic revision of the protocols may be necessary to reflect current industry practice, changes in the state of the art, and implementation of new technologies in the wind industry, meteorology and compliance. While noise measurement and stray voltage testing protocols currently exist, the commission may in the future choose to establish protocols in areas such as shadow flicker, communications interference, or other areas as needed.

PSC 128.51 (7) Commission review—Standard of review - deleted

A comment requested changes to the standard of review for the commission to establish, instead of a permissive standard, a requirement to reverse or modify if a political subdivision decision or action doesn't comply with the chapter or is otherwise unreasonable. This provision has been removed to ensure consistency with the statutory provisions regarding the Commission's review on appeal.

PSC 128.51 (7) Commission review—Remand to political subdivision

A comment requested that the provision requiring the political subdivision to enter a decision within 20 days of a remand by the commission be changed to 30 days so that the political subdivision would be less likely to need to call a special meeting to address the remanded issue. This section has been changed to state that if an issue other than application completeness is remanded to a political subdivision, that the timeline for review will be set in the commission's order. If a completeness determination is remanded, the timelines for reviewing a complete application will apply.

Rule Provisions - Subchapter VI

PSC 128.60 (1) Exceptions for small wind energy systems

Various comments suggested exceptions or modifications to the rule requirements as they would apply to a small wind energy system. Changes have been made to allow a political subdivision to make reasonable accommodations and variations to the rule requirements for small wind energy systems in light of the comments received specific to small wind and in light of all other comments received on the subject matter of applicable requirements.

The rule has been modified to establish different maximum requirements a political subdivision can adopt for small wind to generally reduce administrative-type burdens for small wind energy systems. Modifications including shortening the time frame for filing notice of intent to file an application, reducing reporting requirements, limiting notification and impact assessment requirements to adjacent properties and lesser setback distances for turbine hosts. The review process has been modified to not require a public meeting to obtain public comments for a small wind application. The complaint process was modified so that small wind would not be subject to a complaint monitoring committee. Some comments were received suggesting that higher

noise standards should be established for small wind. These were not adopted. It is not reasonable to give neighboring property owners of small wind energy systems a lesser level of consideration for noise exposure than they would receive from a large wind energy system.

Comments on items not in the Rule

Community wind energy systems

The Wind Siting Council and some commentators suggested that a third, intermediate category should be created, for community wind energy systems. The Wind Siting Council suggested that it should be for a wind energy system that does not exceed 15 MW in total and that is either locally owned or designed to meet local needs for electricity.

The commission has not included this category in the rules because additional review and consideration is necessary to better define what projects would qualify to receive this designation, to decide which existing rules should be applied or modified for such installations and if new rules need to be created that would apply only to such systems. The commission will refer this back to the Council for additional review and input and ask that the Council develop a proposal that could be included in a future rule-making docket.

Wildlife

Comments suggested that wind turbines not be allowed in locations where threatened or endangered species are present. Owners are already required to comply with existing state and federal laws affording protection to threatened and endangered species. It is not necessary to add additional protections in the draft rule for these species.

One comment requested that the maps showing areas of the state where placement of wind turbines may have an adverse effect on bird and bat populations, which are to be developed by the DNR under a provision of Act 40, be referenced in the rule. The DNR has not released any results of their work efforts in this area. It is not appropriate to specifically incorporate in the rule a requirement to use data that does not yet exist.

Many comments expressed concern about the negative effects of wind turbines on birds and bats. The comments included suggestions about avoiding areas where birds concentrate, bird migration corridors and bat hibernacula. It is acknowledged that wind turbines cause bird and bat mortality. It is also noted, however, that it is probably not possible to avoid all mortality. As noted earlier, the DNR is in the process of identifying, under another provision of Act 40, areas of the state where placement of wind turbines may have an adverse effect on bird and bat populations. That effort may provide siting guidance to help reduce bird and bat mortality. The rules include a provision allowing a political subdivision to require the owner to describe how it has incorporated agency recommendations regarding natural resources not subject to specific permits into a project's design.

Comments requested that the rules be amended to allow political subdivisions to incorporate requirements into their application approvals based on non-binding DNR recommendations. The requested change was not made because it is not appropriate to effectively grant additional enforcement authority to the DNR through these rules. Act 40 directs the DNR to evaluate whether they need additional authority to address wildlife matters, and this is the appropriate venue for any modifications to existing authority regarding wildlife matters.

A number of comments recommended that the wind energy system owners be required to curtail wind turbine operations at night to reduce mortality to bats. Operational curtailment appears to be a promising mitigation measure to reduce bat mortality. The knowledge of this mitigation method, however, is limited and based on three initial studies. It is premature to require use of this mitigation method given the limited nature of the studies conducted to date. An owner and political subdivision could voluntarily enter into a bi-lateral agreement about curtailment.

Section s. PSC 128.33 (2) allows a political subdivision to require an owner to cooperate in state studies about the effects of wind energy systems. Further, the commission will ask the Wind Siting Council to continue investigate the possible effects of a wind energy systems on farm animals and wildlife.

Aesthetics

A number of comments received noted that the rules do not specifically address the visual change wind turbines have on the landscape. Many of these comments claim major degradation of the visual setting when wind turbines are installed, which in turn affects quality of life and reduces tourism potential. Comments point out that visual intrusion occurs both during daytime and nighttime hours. Some comments requested that political subdivisions be allowed to regulate wind projects based on visual considerations. Comments also suggest that planning be done to identify pristine or significant scenic areas where wind turbines would not be allowed. Possible exclusion areas suggested include state, county and local parks, state wildlife refuges, state forests, DNR designated "Legacy Places," and large scenic landscape features such as the Mississippi and Wisconsin Rivers.

A provision to allow regulation of wind turbines specifically due to their visual impacts has not been added to the rules, as wind turbines are large conspicuous structures which will change the visual setting, and there are few areas of the state where it would be possible to address visual impacts to the extent that the commenters desire. No exclusion areas were created, because this concept is beyond the scope of the rules.

Farm Animals

Concerns about wind turbines affecting farm animals were included in several comments. It is possible that domestic animals could experience negative effects from noise and shadow flicker annoyance, similar to that experienced by humans. There are no known studies evaluating this potential. There is no basis at this time for setting standards or setbacks from wind turbines for

protection of farm animals. However, as noted above, the commission will ask the Wind Siting Council to investigate the possible effects of a wind energy system on farm animals and wildlife.

Conflict of Interest

Some comments requested a provision in the rules to address potential "conflicts of interest" for a political subdivision official reviewing a proposed wind energy system application. No changes have been made, as local officials are already subject to ethical standards under ch. 19, Stats.

Other information received

The commission received a large number of filings during the public comment period that were not comments on the proposed rule. As these items were not rule comments, while they were reviewed by staff, the content of these items was not incorporated into this report. These items included:

- Information or opinions about the cost of generating electricity from wind.
- Descriptions of personal accounts of persons living near wind energy systems in Wisconsin or other states.
- Third-hand accounts of persons living near wind energy systems in Wisconsin and other states.
- Expressions of support for wind development.
- Expressions of opposition to wind development.
- Copies of articles, papers, press releases, reports and other publications filed by persons not the author of the publication.

Wisconsin Legislative Council Rules Clearinghouse

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CLEARINGHOUSE REPORT TO AGENCY

[THIS REPORT HAS BEEN PREPARED PURSUANT TO S. 227.15, STATS. THIS IS A REPORT ON A RULE AS ORIGINALLY PROPOSED BY THE AGENCY; THE REPORT MAY NOT REFLECT THE FINAL CONTENT OF THE RULE IN FINAL DRAFT FORM AS IT WILL BE SUBMITTED TO THE LEGISLATURE. THIS REPORT CONSTITUTES A REVIEW OF, BUT NOT APPROVAL OR DISAPPROVAL OF, THE SUBSTANTIVE CONTENT AND TECHNICAL ACCURACY OF THE RULE.]

CLEARINGHOUSE RULE 10-057

AN ORDER to create chapter PSC 128, relating to the siting of wind energy systems.

Submitted by PUBLIC SERVICE COMMISSION
05-17-2010 RECEIVED BY LEGISLATIVE COUNCIL.
06-14-2010 REPORT SENT TO AGENCY.

RS:REL

LEGISLATIVE COUNCIL RULES CLEARINGHOUSE REPORT

This rule has been reviewed by the Rules Clearinghouse. Based on that review, comments are reported as noted below:

1. STATUTORY AUTHORITY [s. 227.15 (2) (a)]

Comment Attached YES ✓ NO

2. FORM, STYLE AND PLACEMENT IN ADMINISTRATIVE CODE [s. 227.15 (2) (c)]

Comment Attached YES ✓ NO

3. CONFLICT WITH OR DUPLICATION OF EXISTING RULES [s. 227.15 (2) (d)]

Comment Attached YES NO ✓

4. ADEQUACY OF REFERENCES TO RELATED STATUTES, RULES AND FORMS [s. 227.15 (2) (e)]

Comment Attached YES NO ✓

5. CLARITY, GRAMMAR, PUNCTUATION AND USE OF PLAIN LANGUAGE [s. 227.15 (2) (f)]

Comment Attached YES ✓ NO

6. POTENTIAL CONFLICTS WITH, AND COMPARABILITY TO, RELATED FEDERAL REGULATIONS [s. 227.15 (2) (g)]

Comment Attached YES NO ✓

7. COMPLIANCE WITH PERMIT ACTION DEADLINE REQUIREMENTS [s. 227.15 (2) (h)]

Comment Attached YES NO ✓

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CLEARINGHOUSE RULE 10-057

Comments

[NOTE: All citations to “Manual” in the comments below are to the Administrative Rules Procedures Manual, prepared by the Legislative Reference Bureau and the Legislative Council Staff, dated September 2008.]

1. Statutory Authority

a. Section 66.0401, Stats., as affected by 2009 Wisconsin Act 40, provides in part that: (1) a political subdivision choosing to regulate wind energy systems must enact an ordinance that is no more restrictive than the applicable standards established by the commission by rule; and (2) the political subdivision may not deny or impose a restriction on an application for approval unless it enacts such an ordinance. Section 196.378 (4g) (b), Stats., created by Act 40, in turn directs the commission to promulgate rules specifying the restrictions a political subdivision may impose on the installation or use of a wind energy system. The commission nominally addresses the requirements in s. PSC 128.13 (2) (a) by stating that a political subdivision may not establish distance or height requirements different than those in ch. PSC 128.

However, the extent of the applicability of ch. PSC 128 is unclear. Section PSC 128.02 (1) (a) provides that the chapter applies to wind energy systems, but there is no indication of whether the rule is meant to regulate only the approval process engaged in by political subdivisions, as mandated by Act 40, or whether the standards in subch. II of ch. PSC 128 are also meant to apply directly to developers, owners, and operators of wind energy systems that operate at a capacity of less than 100 megawatts in a political subdivision without an appropriate ordinance. [See also s. 196.491, Stats.] If the rule is intended to apply to developers, owners, and operators of wind energy systems throughout the state in political subdivisions without an appropriate ordinance, the rule should clearly state this and the commission should clearly and carefully explain its statutory authority. If the rule is intended merely to comply with Act 40, the text of the rule should state clearly that the standards contained in the rule are those that must be contained in a

political subdivision ordinance that imposes an approval process on developers, owners, and operators of wind energy systems.

b. Section 66.0401 (4) (a) 3., Stats., as created by Act 40, provides that on the same day that an applicant makes an application for approval of a wind energy system, the applicant must mail or deliver written notice of the application to the owners of land adjoining the site of the wind energy system. Sections PSC 128.10 and 128.30 (5) contain additional notice requirements. What is the statutory authority for the additional requirements? [Arguably, the notice requirement in s. PSC 128.18 (5) is part of the enforcement process that the commission is required to regulate under s. 196.378 (4g) (c) 4., Stats.]

2. Form, Style and Placement in Administrative Code

a. The rule preface compares the rule to the law in the State of Ohio. While an agency may compare a rule to any state in the country, s. 227.14 (2) (a) 4., Stats., requires a comparison with similar rules in Illinois, Iowa, Michigan, and Minnesota. The rule preface should include information about Iowa law.

b. Section PSC 128.02 (2) is a broad grant of authority to the commission to take any action it desires without regard to ch. PSC 128. If the commission's intent is to create a system by which a variance may be obtained, some standards for granting a variance should be stated in the rule.

c. In s. PSC 128.10 (3) (a) and (b), "Department of Transportation" should be changed to the lowercase. It appears that s. "PSC 128.10 (5)" should be changed to s. "PSC 128.10 (4)."

d. Section PSC 128.14 (3) (f) provides that the commission must establish a noise measurement protocol that will be revised as necessary and made available to the public on the commission's website. It appears that the noise measurement protocol, or at least a reference to a recognized standard, should be incorporated into the text of the rule.

e. In s. PSC 128.17 (1), the sentence should begin with the phrase "A developer." [See also sub. (3).]

f. In s. PSC 128.18 (2) (a), the notation "Wis. Adm. Code" is unnecessary and should be deleted.

g. In s. PSC 128.31 (1), the notation "s." should be inserted before the reference to "PSC 128.40."

h. Section PSC 128.40 requires the commission to establish detailed application filing requirements for applications filed for political subdivision review of a wind energy system. The commission may revise these requirements and place the requirements on the commission's website. It appears that the filing requirements should be placed in the text of the rule.

5. Clarity, Grammar, Punctuation and Use of Plain Language

- a. The rule makes frequent use of the phrase “developer, owner, or operator.” When the disjunctive word “or” is used, and the rule imposes a mandate, is it clear who is required to comply with the rule? Will this be a matter typically settled by contract?
- b. In s. PSC 128.13 Table 1, should “participating residences” be changed to “participating properties,” which is a defined term under s. PSC 128.01 (13)? See also sub. (1) (d) and s. PSC 128.15 (1).
- c. In s. PSC 128.14 (3) (a), what does “seasonally-reduced” mean? In sub. (3) (d), “nighttime hours” should be defined. In sub. (3) (e), “under par. (f)” should be added after “noise measurement protocol.”

RESPONSES TO LEGISLATIVE COUNCIL REPORT

1. Statutory Authority

- a. Changes have been made to clarify that the majority of the rule involves what provisions a political subdivision may choose to include in an ordinance, should it choose to enact one. However, the choice of whether to enact an ordinance, and what provisions to include, remain with the political subdivision.

Portions of the rule are intended to apply even when a political subdivision does not have a wind siting ordinance. The statute, as affected by 2009 Wisconsin Act 40, shows that this was intended. For example, “application” is defined in s. 66.0401 (1e) (a), Stats., as ‘an application for approval of a wind energy system under rules promulgated by the commission....’ Yet an application must be filed whether or not a political subdivision has an ordinance. In s. 66.0401(4) (a) 2., Stats., a deadline is set for an application’s completeness determination when a political subdivision does not have a wind siting ordinance. Section 66.0401(4) (a) 3., Stats., requires notice to landowners on the same day that an application is filed with the political subdivision. In addition, s. 196.378 (4g) (c) 1., Stats., states that the commission must promulgate rules that specify what information and documentation must be in a wind energy system application. Thus, whether or not a political subdivision has an ordinance, the PSC rules about filing an application and the political subdivision review process apply. Decommissioning rules also always apply. Procedural rules for complaints, as well as procedural rules for appeals to the Commission, always apply.

- b. Section 196.378 (4g) (b), Stats., allows the commission to develop rules about matters other than those listed in the statute. Section 66.0401 (4) (a) 3., Stats., deals with notice that a wind energy system application has been filed. Section PSC 128.105 deals with a notice before the application is filed. It serves a different purpose than the notice that an application has actually been filed in that it is intended to aid the political subdivision in enforcing or enacting an ordinance and to better understand the application that will be filed. Section PSC 128.30 (5) deals with information that must be included with the notice that an application has been filed.

2. Form, Style and Placement in Administrative Code

- a. Agree. Change made.

- b. Disagree. This provision appears in multiple commission rules, and has done so dating back to the 1950s. This flexibility is important given the very quick changes that can occur in the industries regulated by the commission, especially in a developing area such as wind energy. Further, this rule is unique in its inter-relationship between political subdivisions and the commission. Unusual complications may arise as a result of this. The provision is not totally open-ended. The commission must examine the facts and circumstances of an individual case and can only change requirements if there is an unusual or exceptional circumstance.
- c. Agree with both suggestions. Changes made. Reference to the Department of Transportation has been removed from the rule.
- d. Disagree. This protocol is posted to the commission's website where it is widely available but can be changed as necessary. The issues of noise and noise measurement are quickly evolving and the protocol may need changing more frequently than rules would allow.
- e. Agree. Changes made.
- f. Agree. Change made.
- g. Agree. Change made.
- h. Disagree. Consistent with the commission's prior practice with filing requirements, the requirements are posted to the website where they are widely available but can be changed as necessary. The requirements may need to be revised more often than rules would allow, especially since this is the beginning of a new process.

5. **Clarity, Grammar, Punctuation and Use of Plain Language**

- a. Agree in part. Requirements and those responsible for meeting those requirements will change during the life of a wind energy system. The language "developer, owner or operator" was used in an attempt to prevent a responsible party from claiming it was not the party named in the rule. The intent in using this language was to convey that the person responsible for the wind energy facility at the time in question is responsible for meeting the requirement at that point in time. However, the language has been changed to clarify this matter. The term operator has been removed from the rules. The definitions of "owner" and "developer" have been merged into the definition of "owner" and language has been added stating that a developer is no longer considered an owner, and so liable, once the development stage is complete.

- b. Disagree. In s. PSC 128.13 Table 1, “participating residences” should not be changed to “participating properties” because there are setback requirements from residences and separate setback requirements from property lines.

Agree. In ss. PSC 128.13(1)(d), the language was intended to include both “participating residences” and “participating properties.” Changes made.

Disagree. In s. 128.15 (1), the language is intentionally limited to residences.

- c. Agree. Changes made. References to seasonally-reduced have been removed from the rule.

2009-2010 Session

LRB or Bill No./Adm. Rule No.
PSC 128

Amendment No. if Applicable

- ORIGINAL UPDATED
 CORRECTED SUPPLEMENTAL

FISCAL ESTIMATE

DOA-2048 N(R10/96)

Subject

Wind Energy Systems Siting Administrative Rule Implementing 2009 Wisconsin Act 40

Fiscal Effect

State: No State Fiscal Effect

Check columns below only if bill makes a direct appropriation or affects a sum sufficient appropriation.

- Increase Existing Appropriation Increase Existing Revenues
 Decrease Existing Appropriation Decrease Existing Revenues
 Create New Appropriation

Increase Costs - May be possible to Absorb Within Agency's Budget Yes No

Decrease Costs

Local: No local government costs

1. Increase Costs
 Permissive Mandatory
2. Decrease Costs
 Permissive Mandatory

3. Increase Revenues
 Permissive Mandatory
4. Decrease Revenues
 Permissive Mandatory

5. Types of Local Governmental Units Affected:
 Towns Villages Cities
 Counties Others _____
 School Districts WTCS Districts

Fund Sources Affected

- GPR FED PRO PRS SEG SEG-S

Affected Ch. 20 Appropriations

20.155 (1) (g) and 20.155 (1) (j)

Assumptions Used in Arriving at Fiscal Estimate

State Fiscal Effects

There are potential costs to the Public Service Commission (PSC) under PSC 128. However, these costs are indeterminate and will be absorbed within existing resources.

Potential staff and Intervenor Compensation costs under PSC 128 are related to the potential number of petitions filed with the Commission to appeal a political subdivision's decision approving or denying construction of a wind energy system or decommissioning a wind energy system.

As drafted, PSC 128 minimizes the potential costs per appeal under 2009 Wisconsin Act 40. PSC 128 does not require the Commission to open a docket or hold a hearing to decide an appeal. However, PSC 128 could increase rather than decrease the potential number of appeals.

Under 2009 Wisconsin Act 40, local governments may not be more restrictive in their wind energy system siting regulations than the statewide set of siting requirements to be established under PSC 128. PSC 128 may result in an increased number appeals from residents because it excludes local governments from considering certain factors in siting decisions, but allows the PSC to make exceptions to the Rule. PSC 128 could also increase the potential number of appeals from owners if a local government enacts more restrictive siting permit and application requirements, than the political subdivision had previously enacted or considered enacting, because PSC 128 allows the more restrictive approach.

Costs from the potential increase in appeals could be offset by the reduced cost per appeal from the rule's more flexible approach to dockets and hearings. However, the total fiscal effect cannot be accurately projected at this time.

PSC 128 as currently drafted does not increase costs to other state agencies. PSC 128 allows political subdivisions flexibility to maintain current levels of consultation and involvement with state agencies (if the overall consultation is allowable under PSC 128).

Local Fiscal Effects

PSC 128 may increase local governments' permitting process and record retention costs, but it allows local governments to cover these costs with wind siting application fees from owners of wind energy systems. Therefore, PSC 128 does not have a significant local fiscal effect.

Long-Range Fiscal Implications

Indeterminate

Agency/Prepared by: (Name and Phone No.)
Anne Olson 267-9086

Authorized Signature/Telephone No.
Anne Olson 267-9086

Date
5/10/2010