Cullen
Weston
Pines
& Bach
A Limited Liability Partnership

Attorneys at Law
122 West Washington Avenue
Suite 900
Madison, Wisconsin 53703
(608) 251-0101
(608) 251-2883 Fax
www.cwpb.com

Lee Cullen
Lester A. Pines
Steven A. Bach
Alison TenBruggencate
Carol Grob
Linda L. Harfst
Curt F. Pawlisch
Jordan Loeb
Tamara B. Packard

Elise Clancy Ruoho
Kira E. Loehr
Theresa R. Gabriel
Jeffrey L. Vercauteren

Of Counsel:
Cheryl Rosen Weston

July 7, 2010

VIA ELECTRONIC REGULATORY FILING SYSTEM

Sandra J. Paske
Secretary to the Commission
Public Service Commission
P.O. Box 7854
Madison, WI 53707-7854

Re: Wind Siting Rules, Docket No. 01-AC-231

Ms. Paske:

The renewable energy businesses and organizations listed below respectfully submit the attached joint comments in the above-referenced proceeding. These comments were prepared by Cullen Weston Pines & Bach LLP.

Thank you for your consideration of these comments.

Sincerely,

CULLEN WESTON PINES & BACH LLP

Jeffrey L. Vercauteren
Direct Dial: 608.310.3322
vercauteren@cwpb.com

BEFORE THE PUBLIC SERVICE COMMISSION OF WISCONSIN

Wind Siting Rules | Docket No. 01-AC-231

JOINT COMMENTS OF RENEWABLE ENERGY BUSINESSES AND ORGANIZATIONS

The renewable energy businesses and organizations listed below appreciate the opportunity to jointly comment on the proposed wind siting rules issued May 18, 2010. We thank Commission staff for the effort they put forth in developing the draft rules, and we offer the following comments and recommendations for incorporation in the final wind siting rules to be issued by the Commission.

Together, our businesses have been involved in the development of approximately 150 megawatts of wind energy in Wisconsin and we are currently engaged in the planning and development of at least an additional 1,500 megawatts. We provide thousands of Wisconsin homes and businesses with a clean, safe, and reliable source of energy. We are committed to the responsible development of our wind energy facilities, and we view collaboration and cooperation with local communities and landowners as essential to the long-term success of wind energy and the sustainable growth of our businesses.

We take very seriously considerations of the health and safety of landowners, residents, and other community members who live, work, and recreate near our wind energy facilities. We have each developed certain practices over many years of experience determining what standards are necessary to protect public health and safety based on factual and scientific information. This experience provides a firm foundation for the comments and recommendations we provide below.

Additional information about us, including our development activities in Wisconsin, is found in Appendix A.[1]

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
L&S Technical Associates, Inc.
Lake Michigan Wind & 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

[1] These comments represent the general consensus view of our renewable energy businesses and organizations on the issues discussed herein. Although certain signatories may have differing views on certain provisions, we all generally support the type of reasonable, workable provisions discussed below.

I. INTRODUCTION.

As the Commission considers the appropriate provisions to include in the Final Wind Siting Rules, it is important to recall the context in which the Wisconsin Legislature enacted Act 40, and the wind development situation that still exists pending approval of the final rules. Over 600 megawatts of planned wind energy facilities are currently stalled in Wisconsin due to overly burdensome, unreasonable, and arbitrary restrictions certain political subdivisions have placed on wind development.

These restrictions contravene Wisconsin law and policy as stated in Wis. Stat. § 66.0401(1) (2008) that support and encourage wind energy development. Through that provision, "the State delegated the authority to execute and administer its established policy of favoring wind energy systems, and the statutory scheme was intended to create avenues for political subdivisions to assist the State."[2] Certain political subdivisions abused that delegation, concluding, in error, that they could "as a matter of local policy disfavor wind energy systems, even severely restrict them, so long as the policy is tied to one of the three conditions in § 66.0401(1)."[3]

Although *Ecker Brothers* disavowed that notion of local wind energy policy overriding state wind energy policy, there continues to be a need to address the uncertainty, project delays, and economic losses developers face in challenging, through litigation, a political subdivision restriction that violates 66.0401(1). This need is fulfilled by Act 40 and its direction to the Commission to create uniform wind siting standards. Act 40 furthers our state policy that favors renewable energy. As mentioned, this policy is well

[2] *Ecker Bros. v. Calumet County*, 2009 WI App 112, ¶ 23, 321 Wis.2d 51, 772 N.W.2d 240 (emphasis omitted).
[3] *Id.* at ¶ 17.

illustrated in 66.0401 and its legislative history.[4] The original enactment of 66.0401 indicates "that the legislature determined it appropriate to give political subdivisions the power to assist in the creation of renewable energy systems and thus become an integral and effective factor in the State's renewable energy goal."[5]

Our state policy favoring renewable energy is also clearly indicated in our state energy policy that prioritizes renewable energy in meeting our energy needs, and in our renewable portfolio standard, which provides for our state to receive increasing amounts of renewable energy through 2015.[6]

Act 40 specifically incorporates this favorable renewable energy policy into the rulemaking authority it grants to the Commission, by directing the Commission to "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)***."[7] Those conditions require any restriction placed on a wind energy system to:

(1) Serve to "preserve or protect the public health or safety;"
(2) Not "significantly increase the cost of the system or significantly decrease its efficiency;" or

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[4] As discussed by the court in *Ecker Brothers*:

> When enacting the original versions of Wis. Stat. §§ 66.0401 and 66.0403, the legislature expressed concern about the diminishing supplies of nonrenewable energy resources, and it observed that renewable energy systems could address this concern. To encourage the use of renewable sources of energy, the legislature resolved to remove legal impediments to such systems in four ways: (1) codifying the right of individuals to negotiate and establish renewable energy resource easements; (2) clarifying the authority of, and encouraging, political subdivisions to employ existing land use power for protecting access rights to the wind and sun; (3) creating a procedure for issuing permits to owners and builders of active solar and wind energy systems; and (4) encouraging political subdivisions to grant special exceptions and variances for renewable energy resource systems.

Ecker Brothers, 2009 WI App 112, ¶ 22 (internal citations omitted).
[5] *Id*. at ¶ 23.
[6] *See* Wis. Stat. §§ 1.12; 196.378(2).
[7] Wis. Stat. § 196.378(4g)(b) (emphasis added).

(3) Allow for "an alternative system of comparable cost and efficiency."[8]

Consistent with this statutory directive in Act 40, each provision of the wind siting rules must satisfy one of those three conditions.

We have therefore reviewed the draft rules considering whether each requirement (1) protects public health or safety, (2) does not significantly increase the cost or decrease the efficiency of the system, or (3) allows for a comparable alternative system. We encourage the Commission to do the same. If a provision does not satisfy one of the three conditions, it must be removed from the final rules. The Legislature has carefully and deliberately provided a framework for encouraging wind energy development in our state, and we must be faithful to that policy and legal directive in formulating these rules.

II. OVERVIEW OF HEALTH AND SAFETY ISSUES.

In considering whether a provision in the rules serves to protect public health or safety, it is vital that considerations of health and safety issues rely on factual and scientific information. Opponents of wind energy have asserted a multitude of unsubstantiated, misinformed, and false claims about health and safety matters. These claims should not be given any weight. Factual and scientific information does not support the conclusion that wind turbines cause or are associated with adverse health outcomes.[9]

A. Sound.

The sound heard from wind turbines at a distance, as with other local sources of sound, is affected by many factors, including the wind direction, meteorological conditions,

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[8] Wis. Stat. § 66.0401(1m).

[9] *See* Jevon D. McFadden, MD, MPH, Presentation to Wisconsin Wind Siting Council, *Wind Turbines: A Brief Health Overview* (May 17, 2010); AUSTRALIAN NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL, WIND TURBINES AND HEALTH (July 2010), *available at* http://www.nhmrc.gov.au/_files_nhmrc/file/publications/synopses/evidence_review__wind_turbines_and_health.pdf.

vegetation, and other barriers. Site-specific acoustic models can anticipate sound levels at nearby receptors for consideration during project siting. The sounds emitted from wind turbines can be mechanical, from internal equipment such as the gearbox or yaw drive, or aerodynamic, from air moving past the rotor blades. Current turbine designs effectively reduce mechanical sound through soundproofing; therefore, the aerodynamic sound, often described as a "whooshing" sound, is what can normally be heard.

In 2009, the American Wind Energy Association (AWEA) and the Canadian Wind Energy Association (CanWEA) established a multidisciplinary scientific advisory panel comprised of medical doctors, audiologists, and acoustical professionals to review current literature available on the perceived health effects of wind turbines. The panel concluded that wind turbine sounds are not unique. Based on the levels and frequencies of the sounds, the panel found no reason to believe that turbines could plausibly have direct, adverse physiological effects.[10] The panel concluded the following:

(a) Subaudible, low-frequency sound and infrasound from wind turbines do not present a risk to human health.

(b) Sound from wind turbines does not pose a risk of hearing loss or any other adverse health effect in humans.

(c) Some people may be annoyed at the presence of sound from wind turbines; annoyance is not a pathological entity.

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[10] W. DAVID COLBY, ET AL., WIND TURBINE SOUND AND HEALTH EFFECTS: AN EXPERT PANEL REVIEW (2009), *available at* http://www.awea.org/policy/regulatory_policy/documents/AWEA_and_CanWEA_Sound_White_Paper.pdf.

(d) A major cause of concern about wind turbine sound is its fluctuating nature; some may find this sound annoying, depending primarily on personal characteristics as opposed to the intensity of the sound level.

The conclusions from this panel have been supported and reiterated recently through a report by the Ontario Chief Medical Officer of Health. The Ontario report was prepared with the assistance of a technical team of representatives from several Ontario health organizations.[11] The report concludes that scientific evidence does not support a direct causal link between wind turbine sounds and adverse human health impacts. The report concludes that low frequency sound, infrasound, and vibration from wind turbines are not sufficient to have human health effects. Instead, the report found that complaints about wind turbine sound commonly arise from annoyance or personal attitude, including concerns about fairness and equity of wind development.

A report by the Australian National Health and Medical Research Council published this month also confirms these findings, concluding: "There are no direct pathological effects from wind farms."[12] Accordingly, there is no demonstrated link between wind turbine sound and human health. Alleged health impacts, particularly the now thoroughly discredited theory of "wind turbine syndrome," have no factual or scientific basis.

B. Shadow Flicker.

Shadow flicker occurs when the blades of a turbine pass in front of the sun to create a recurring shadow on an object. Computer models can determine the days and times during the year that specific buildings in close proximity to turbines may experience

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[11] CHIEF MEDICAL OFFICER OF HEALTH, THE POTENTIAL HEALTH IMPACT OF WIND TURBINES (2010), *available at* http://www.health.gov.on.ca/en/public/publications/ministry_reports/wind_turbine/wind_turbine.pdf.
[12] AUSTRALIAN NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL, *supra* note 9.

shadow flicker. Shadow flicker has no demonstrated human health impacts. Opponents of wind energy sometimes allege that shadow flicker can cause epileptic seizures. There is no factual or scientific data to support those allegations. Shadow flicker from wind turbines occurs much more slowly than the "strobe light effect" associated with seizures.[13]

C. Groundwater.

Concerns about fracturing karst bedrock are not based on any known issues with wind development affecting groundwater. Every existing wind project in Wisconsin—Butler Ridge, Cedar Ridge, Blue Sky Green Field, Forward, Montfort, Rosiere, Lincoln, Byron, and Glenmore—is situated in an area identified as a potential karst location.[14] With 306 wind turbines installed in potential karst areas since 1998,[15] there are no known issues with groundwater contamination from wind turbine construction. Wind turbine foundations in most cases are no more invasive than the average single-residential basement excavation (ten feet deep and 50 feet in diameter, with underground cabling at four feet below grade).

D. Other Health Considerations.

As we continue to grapple with the immense problem of climate change and its threatened health and societal impacts, wind energy stands out as an abundant, affordable, and readily available energy supply option while reducing carbon dioxide (CO_2) emissions. The U.S. Department of Energy concludes that wind power can supply 20 percent of our electricity by 2030 and reduce projected emissions of CO_2, the leading greenhouse gas, by

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[13] Andrew R.D. Smedley, et al., *Potential of Wind Turbines to Elicit Seizures Under Various Meteorological Conditions*, EPILEPSIA (Nov. 16, 2009).

[14] *See* Wisconsin Geological and Natural History Survey, Map Showing Areas for Karst Potential in Wisconsin, http://www.uwex.edu/wgnhs/karstmap.htm.

[15] *See* RENEW Wisconsin, Commercial Wind Energy Installations in Wisconsin, http://www.renewwisconsin.org/windfarm/windwisconsin.htm.

25 percent.[16] Additionally, each megawatt-hour of wind generation can prevent the loss of up to 600 gallons of water from fossil fuel power plant cooling. This equals over 20 billion gallons of water conserved by the 35,000 megawatts of wind energy installed and operating in the United States at the end of 2009.[17]

The entire fleet of wind turbines operating in the United States as of the end of 2009 will also prevent the emission of over 57 million tons of CO_2 each year.[18] Drastically changing climates could have serious human health impacts. Wind energy produces less than two percent of the emissions from coal combustion per megawatt-hour, even considering the manufacturing process.[19]

Wind energy can also help improve air quality, which has a direct impact on human health. An estimated 800,000 people in Wisconsin—approximately 14 percent of the population—suffers from some form of lung disease, including asthma, chronic obstructive pulmonary disease (COPD), and lung cancer.[20] Particulate matter in the air, often as a result of fossil fuel power plant emissions, has been shown to affect cardiovascular and respiratory health. Unhealthy levels of particle pollution can even cause otherwise healthy people to get sick.[21] By offsetting more polluting forms of energy generation, wind energy can improve air quality and our health. In 2009, wind projects in operation in the United

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[16] U.S. DEP'T OF ENERGY, 20% WIND ENERGY BY 2030: INCREASING WIND ENERGY'S CONTRIBUTION TO ELECTRICITY SUPPLY (2008), *available at* http://www.20percentwind.org/20percent_wind_energy_report_revOct08.pdf.
[17] AWEA, WINDPOWER OUTLOOK 2010, *available at* http://www.awea.org/pubs/documents/Outlook_2010.pdf.
[18] *Id*.
[19] Letter from Willet Kempton, University of Delaware, and Jonathan Levy, Harvard School of Public Health, to Delaware Public Service Commission, May 3, 2007, *available at* http://www.ceoe.udel.edu/windpower/DE-Qs/IRP-KempLevy-Health.pdf.
[20] Testimony by Dona Wininsky, American Lung Association of Wisconsin (Tr. 431).
[21] American Lung Association, Particle Pollution, http://www.stateoftheair.org/2010/health-risks/health-risks-particle.html.

States prevented 200,000 metric tons of sulfur dioxide and 80,000 metric tons of nitrogen oxides from polluting our air.[22]

Accordingly, in addition to having no demonstrated negative impacts on human health or safety, wind energy could have a significant positive impact on human health when air quality and climate change issues are considered. These considerations should guide the determination by the Commission of whether provisions in the final rules serve to protect health or safety.

III. COMMENTS ON PROPOSED RULES.

With this context, we offer our comments on the proposed rules and our recommendations for the final rules. We have carefully and thoroughly reviewed the rules based on the framework we discussed above. Where we do not comment on a particular provision of the rules, we support its inclusion in the final rules.

Although we will address the provisions of the rule in order below, we would like to note one provision in particular at the outset. In PSC 128.33, we would replace subsection (2) with the following: "A political subdivision shall not place any condition or regulation on a wind energy system except as specifically provided in this chapter. Any condition or regulation on a wind energy system not specifically provided in this chapter shall be deemed more restrictive than this chapter in contravention of s. 66.0401(1m), Stats."

This change is the most essential request we are making to assure that the rules are consistent with the legal and policy requirements of Act 40.

The draft rules provide political subdivisions with substantial discretion; as discussed above, this is contrary to the intention of Act 40 and the renewable energy policy

[22] AWEA, WINDPOWER OUTLOOK 2010, *supra* note 17.

of Wisconsin. Certain political subdivisions have demonstrated a willingness to abuse delegated authority, as discussed in *Ecker Brothers*. We are willing to work collaboratively and cooperatively with political subdivisions to establish mutually agreeable provisions beyond the requirements of the rules. However, we cannot develop wind projects in Wisconsin if current uncertainty regarding political subdivision requirements continues. If the purpose and intent of Act 40 are to be served, the rules must occupy the field regarding wind energy development.

A. Definitions (PSC 128.01).

In the definition of "developer," we would delete "regardless of whether the person will own or operate the wind energy system" and replace it with "excluding third-party consultants." As drafted, the language has the unintended consequence of including engineers, technical advisors, attorneys, and other consultants as developers, subject to the requirements of the rules. Only the actual project developer should be included.

In the definition of "participating property," we would delete paragraph (b). In paragraph (a), we would modify the last part of the sentence to state "on or in the vicinity of the property." This change assures that developers with existing good neighbor or wind easement agreements with neighboring landowners would not need to execute new agreements with landowners containing the specific language required in the draft rule.

We would remove the definitions of "wind easement" and "wind lease" for the reasons discussed in paragraph (D) below.

B. Applicability (PSC 128.02).

In paragraph (1)(b)5., we would add "unless the developer files a new application after the effective date of this chapter" to the end of the sentence. As drafted, this provision

would retain the roadblock for projects that are stalled as a result of overly burdensome political subdivision requirements. We think this is unintended. A developer who has previously filed an application with a political subdivision should be able to file an application for the same project under the new rules.

We would add a new paragraph (1)(b)6. that states: "Except as required by s. 196.491 (3) (dg), a wind energy system that is a large electric generating facility as defined in s. 196.491 (1) (g)." This change clarifies that the rules do not directly apply to facilities with a capacity of at least 100 megawatts, but that the Commission will consider the rules in CPCN proceedings as required by Wis. Stat. § 196.491(3)(dg).

In paragraph (1)(c), we would remove the language requiring new Commission rules for turbines with a maximum blade tip height exceeding 500 feet. Some turbines currently in production are already approaching that threshold, such as the Nordex N100 and the Vestas V112 with a maximum blade tip height of 492 feet.[23] We are not aware of any issues that would require different rules for turbines over 500 feet. Larger turbines are able to reach better wind resources, thereby increasing overall system energy production.[24]

In subsection (2), we would delete the language beginning with "applying requirements" and replace it with "granting a variance to an individual wind energy system from any requirement provided in this chapter." One purpose of the rules is to provide certainty to wind developers in the application and approval process. Appropriate

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[23] *See* Nordex Gamma Generation Product Data Sheet N100, *available at* http://www.nordex-online.com/fileadmin/MEDIA/Gamma/Nordex_Gamma_N100_USA.pdf; Vestas V112-3.0 MW Brochure, *available at* http://www.vestas.com/en/wind-power-plants/procurement/turbine-overview/v112-3.0-mw.aspx.

[24] *See* Nordex Gamma Generation Platform Brochure, *available at* http://www.nordex-online.com/fileadmin/MEDIA/Gamma/Nordex_Gamma_USA.pdf.

standards established in the rule eliminate the need to subject a project to greater or different restrictions than provided in the rules.

C. Notice Requirements (128.10).

In paragraph (1)(a), we would change the notice requirements to 30 days before application filing or 60 days before construction. We regularly coordinate with political subdivisions and landowners openly prior to application filing, because we recognize that community support for a project is an important aspect of successful project development. The apparent purpose of the notice requirement in the rules is to provide political subdivisions with sufficient time to obtain the necessary resources to prepare for the required application review and plan any public hearings. A formal notice requirement of six or nine months would not serve that purpose better than 30 or 60 days notice.

We would also change the notice requirement for landowners to owners of property adjacent to participating property, rather than all landowners within one mile. This requirement is consistent with Wis. Stat. § 66.0401(4)(a)3., which requires notice of application filing only to adjacent landowners.[25]

For small systems, we would require notice to adjacent landowners, not the political subdivision, 30 days prior to construction. The application review process for a small system should be no greater a burden for the political subdivision than reviewing a standard application for a building permit, and therefore the purpose of the notice period for large systems is not present.

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[25] *See* Wis. Stat. § 66.0401(4)(a)3. ("On the same day that an applicant makes an application for approval under subd. 1. for a wind energy system, the applicant shall mail or deliver written notice of the application to the owners of land adjoining the site of the wind energy system.").

In paragraph (1)(b)1., we would remove "complete" and add "projected" prior to "number." In paragraph (1)(b)2., we would replace "planned" with "projected" and add to the end of the sentence "provided the developer shall not be required to show specific turbine locations." In paragraph (1)(b)4., we would require notice of "major or material" permits. These three changes are intended to give the political subdivision sufficient information to determine the scope of its review, without requiring the developer to provide specific system information that may change prior to the application date. We would apply paragraph (1)(b)5. only to large systems, as a small system is unlikely to be located in more than one political subdivision.

In subsections (2) through (4), we would change the notice requirements to 30 days before application filing and 60 days before construction. Similar to the reasons stated above for political subdivisions, the purpose of the notification to these agencies is to provide them with an opportunity to prepare for the application review process. We would also only apply these notice requirements to large systems, given the limited impacts of small systems on environmental, transportation, and emergency service issues.

We would replace the language in paragraph (3)(b) with the following: "A developer of a large wind energy system shall consult with the Department of Transportation and incorporate into large wind energy system delivery decisions required permitting considerations from the Department of Transportation." This language is intended to mirror the DNR notification requirement and better reflects existing DOT authority regarding wind projects.[26]

[26] *See* Wis. Stat. §§ 348.25-348.27 (requiring permits for oversize or overweight loads, but not requiring the type of extensive planning contemplated in the draft rule).

We would delete paragraph (4)(a)1., which requires notification to all emergency first responders serving a location, given the potentially large scope and uncertainty of this notice requirement. The notice requirement in paragraph (4)(a)2. to all official first responders of a political subdivision satisfies the intent of the notice requirement and contains certainty as to which entities the developer needs to notify.

D. Real Property Provisions and Existing Property Uses (PSC 128.11-12).

Reflecting on the requirement of Act 40 that each provision of the wind siting rules satisfy one of the three conditions in Wis. Stat. § 66.0401(1m), we request deletion of these provisions in their entirety. Although some of these provisions may be included in our existing lease and easement agreements, we strongly object to any regulation of agreements between private parties. We are especially concerned with provisions that would require disclosure of confidential terms of our agreements.

We operate with agreements that are fair and equitable to landowners. As with other business transactions, we offer landowners reasonable contract terms that provide them with fair compensation in exchange for the provisions we need to develop our projects. We also accommodate existing property uses in our development of projects. These are voluntary agreements, and landowners have the opportunity to review them and seek advice and counsel, if desired, before signing. Although the state has elected to regulate private contracts in certain industries where unscrupulous practices may exist, such as payday lending, we are not aware of any circumstances that would justify regulating wind energy contracts.[27]

[27] At the public hearing in Fond du Lac, Edward Ritger, an attorney who has represented landowners in entering into lease and easement agreements with developers in several wind projects in the state, testified that

E. Siting Criteria (PSC 128.13).

At the end of paragraph (1)(a), we would add the following: "based on the buildings, residences, property lines and other physical conditions existing on the earlier of the date an application for approval of a wind energy system is filed with the political subdivision or the start of construction." This change will provide certainty for developers in making setback decisions.

In Table 1, we would change the setback from occupied community buildings and nonparticipating residences to 1,000 feet. Several developers use this as a standard setback, and no justification has been provided for increasing the setback to a larger distance for health or safety reasons. Indeed, two recent decisions by the Minnesota Public Utilities Commission have applied a 1,000-foot setback from existing residences, absent waiver by the resident.[28] It is also important to remember that in addition to these minimum setbacks, a developer must comply with sound and shadow standards; therefore, a longer minimum setback is not required to mitigate sound and shadow impacts.

We would remove the setback from wetlands and waterways, which are already governed by DNR requirements.[29]

For small systems, we would establish a setback of 1.0 times the maximum blade tip height from occupied community buildings, nonparticipating residences and property lines, public roads, and overhead communication, transmission, and distribution lines. A

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he has not witnessed the type of unscrupulous contract practices alleged by those who oppose wind energy. Instead, developers have worked with landowners to incorporate desired changes into contracts. (Tr. 150-51).

[28] *See* Large Wind Energy Conversion System Site Permit for the EcoHarmony West Wind Project in Fillmore County Issued to EcoHarmony West Wind, LLC, at 16, Docket No. IP-6688/WS-08-973 (Feb. 3, 2010); Large Wind Energy Conversion System Site Permit for Elm Creek II Wind Project in Jackson and Martin Counties, at 8, Docket No. IP-6728/WS-09-553 (Feb. 25, 2010).

[29] *See* Wis. Admin. Code §§ NR 102-103.

larger setback is not justified based on experience with small systems in Wisconsin. There are numerous instances where small wind systems are installed close to participating residences and other occupied buildings without issue. These setbacks are also consistent with the Wisconsin model Small Wind Energy System Ordinance, developed by Focus on Energy and others.[30]

In paragraph (1)(b), we would replace "foundation of a building" with "wall of an occupied building" to better reflect current setback measurement methods.

We would remove paragraph (1)(c), given the lack of clarity in the requirement. We site turbines responsibly to avoid large impacts to any particular landowner, but we are concerned with the open-endedness of this provision.

In paragraph (1)(d), we would also allow waivers of property line setbacks and remove the exception to allow landowners to consent to a lesser setback. In certain situations, for example, it may be desirable for both the developer and nonparticipating landowner to voluntarily agree to site a turbine closer than 1.1 times the blade tip height from a nonparticipating property line.

We would replace subsection (3) with the following: "The developer, owner or operator of a large wind energy system shall use reasonable efforts to avoid or mitigate interference with existing line-of-sight communication technologies." This language more closely follows the requirement for other types of communication in the rules. There may be situations where it is feasible to place part of a project in the path of existing line of sight technologies and to coordinate with the political subdivision to develop alternatives.

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[30] *See* Small Wind Energy System Ordinance (PSC REF# 131478).

F. Sound Criteria (PSC 128.14).

As discussed above, wind turbines produce a soft whooshing sound when the blades travel in front of the tower. On flat or gently rolling terrain, the aerodynamic sound of a wind generator dissipates with distance. When standing 1,000 feet away from a turbine, the sound output should not exceed 45-50 decibels, comparable to a kitchen refrigerator.[31] A pair of post-construction sound level studies performed in 2008—one for the Forward Wind Energy Center near Brownsville and the other for the Blue Sky Green Field Wind Energy Center near Johnsburg—found that decibel levels increase only slightly from normal outdoor background noise at the setback point when a wind turbine is operating.[32] As stated in the Forward report, "Test personnel generally needed to concentrate in order to identify turbine noise from that of wind-induced vegetation rustle. The most consistent sources of background sound at the measurement points were birds, distant traffic, and the rustle of vegetation due to wind."[33]

Although some opponents have advocated for a measurement standard based on the ambient sound level, such a standard is fraught with uncertainty for developers, including compliance testing impracticalities. The ambient sound level changes over time, whether that time period is a matter of hours or a matter of minutes or seconds. An established sound level at 50 dBA makes project planning and compliance testing much

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[31] NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES, ENVIRONMENTAL IMPACTS OF WIND-ENERGY PROJECTS 158 (2007); AMERICAN WIND ENERGY ASSOCIATION, WIND POWER MYTHS VS. FACTS, *available at* http://www.awea.org/pubs /factsheets/050629_Myths_vs_Facts_Fact_Sheet.pdf.

[32] Application of Forward Energy LLC for a Certificate of Public Convenience and Necessity to Construct a Wind Electric Generation Facility and Associated High Voltage Electric Transmission Facilities, to be Located in Dodge and Fond du Lac Counties, Noise Level Testing for the Forward Wind Energy Center, Docket No. 9300-CE-100 (PSC REF# 100610) (Sept. 17, 2008) ("Forward Report"); Application of Wisconsin Electric Power Company for a Certificate of Public Convenience and Necessity to Construct a Wind Electric Generation Facility and Associated Electric Facilities, to be Located in Fond du Lac County, Post Construction Noise Survey, Docket No. 6630-CE-294 (Oct. 14, 2008) (PSC REF# 102715).

[33] Forward Report at 8.

more feasible, and has shown to be effective in limiting sound impacts, as demonstrated in the Forward and Blue Sky sound studies.

Therefore, in paragraph (2)(a), we would remove "or at an alternate wall as specified by the resident." We would replace paragraph (2)(b) with the following: "A developer shall operate the wind energy system in a manner that sound produced by the wind energy system does not exceed 50 dBA at any nonparticipating residence or occupied building existing on the earlier of the date an application for approval of a wind energy system is filed with a political subdivision or the start of construction." These changes provide certainty and predictability to a developer when conducting pre-construction sound studies. In particular, the language "sound produced by the wind energy system" clarifies that contributions from other sources of sound, such as factories and farm equipment, will not be included in determining compliance with the sound standard.

We would replace paragraphs (3)(a) through (e) with the following: "(a) A developer, owner or operator of a large wind energy system shall test for compliance with the sound limits upon complaint by a nonparticipating residence. (b) A developer shall evaluate compliance with the sound limits as part of pre-construction sound studies for a large wind energy system based on the commission sound measurement protocol in effect at the time of application filing." First, this change establishes a uniform decibel level during all hours and seasons. In our experience, 50 dBA is an acceptable sound level in all seasons, even in summer evenings when residents are more likely to have windows open; the 5 dBA difference would not protect public health, but would increase system costs and decrease efficiency if curtailment is required. Second, this change removes the open-ended language in paragraph (d) regarding certain undefined forms of audible sound; other than

an operational problem, which the developer would address to maintain system efficiency, we are unaware of wind turbines producing these types of sounds and therefore view this restriction as unnecessary and creating uncertainty.

In paragraph (3)(g), we would remove "is not an encumbrance on the real property." We think this is merely a drafting error, as this language conflicts with the language that follows on the waiver running with the land.

G. Shadow (PSC 128.15).

As discussed above, shadow impacts do not pose any public health or safety issues. Further, incidences of shadow flicker are predictable and preventable. Through computer simulations, engineers can track the elevation of the sun and when it would pass behind moving blades. Developers can use that information to situate wind turbines to minimize occurrences of shadow flicker at neighboring households.[34] A number of changes are necessary, however, to make the shadow provisions workable for developers.

In subsection (1), we would add "to comply with sub. (2)" to the end of the second sentence to clarify that compliance with the shadow standard is the requirement and not elimination of shadow. We would also exempt small systems from the shadow requirements, as their shadow effects rarely extend beyond the property of the owner.

In subsection (2), we would clarify that the standard applies to nonparticipating residences "existing on the earlier of the date an application for approval of a wind energy system is filed with a political subdivision or the start of construction." This change will provide predictability to developers in considering shadow in siting decisions. We would also change the standard to 45 hours "based on the projected weather-adjusted annual

[34] NATIONAL RESEARCH COUNCIL, *supra* note 31, at 160.

average through modeling." This change clarifies that shadow studies will be based on projected actual conditions rather than worst-case scenarios. This change also allows for a more reasonable number of hours of shadow. As discussed above, there are no demonstrated health impacts of shadow; instead, it is an issue of aesthetics for landowners. We consider shadow in our siting decisions based on a reasonable impact to landowners, and offer compensation or mitigation to those who exceed a reasonable level. In Wisconsin, there are approximately 4,400 annual daylight hours; a standard of 45 hours allows for shadow up to about one percent of total daylight hours.

We would delete paragraphs (3)(b) through (d) and replace paragraph (3)(a) with the following: "A developer, owner or operator of a large wind energy system shall work with an owner of a nonparticipating residence to mitigate the effects of shadow flicker. The developer shall provide reasonable shadow flicker mitigation for a residence experiencing 45 hours per year or more of shadow flicker." This change provides predictability to the developer in modeling shadow. We work with landowners to determine a reasonable solution for shadow, and have found this system workable. Given the lack of health or safety impacts for shadow, the requirements we removed would increase the cost of the system without any benefit to health or safety.

H. Signal Interference (PSC 128.16).

In subsection (1), we would remove the last sentence, given the inconsistency with the central purpose of these rules to provide uniform standards. In subsection (2), we would remove the second and third sentences, and in subsection (3), we would remove the third and fourth sentences. We coordinate with residents and political subdivisions to mitigate signal interference with the best method based on the circumstances. This change

removes provisions that would limit political subdivisions, residents, and developers to specific mitigation methods that may not be preferable or workable under the circumstances.

In all three subsections, we would clarify that the mitigation requirements only apply to signal interference "caused by the wind energy system" to clarify that developers are not responsible for preexisting signal interference. We would also exempt small systems from this section, as their potential to interfere with signals is minimal.

I. Stray Voltage (PSC 128.17).

Stray voltage issues with wind projects are rare, and are usually caused by problems in the existing distribution system or at the farm itself. While wind turbines, like all other objects that produce or use electricity, do create electromagnetic fields, the fields extend only about 10 feet from the turbine and associated transformer and are weaker than the electromagnetic fields produced by hairdryers.[35]

In subsection (1), we would clarify that this requirement applies "at dairy operations upon request from an owner of a dairy operation within one-half mile of any large wind energy system facility," rather than to all confined animal operations before and after construction. Requiring testing before and after construction, without cause, would increase system costs without any demonstrable benefit.

In subsection (3), we would clarify that the requirement to rectify problems arises only for stray voltage problems "that exceed stray voltage standards established by the commission." As written, there is no standard for allowable levels of stray voltage.

J. Construction and Operation (PSC 128.18).

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[35] WINDRUSH ENERGY, THE HEALTH EFFECTS OF MAGNETIC FIELDS GENERATED BY WIND TURBINES (2004).

We would remove paragraphs (1)(a) and (b). Developers construct the turbine with the manufacturer-provided finish and signage. We are concerned with the undefined and open-ended nature of these terms and, in any event, these provisions do not serve any health or safety purpose, but rather are related solely to aesthetics.

In paragraph (1)(g), we would remove the requirement to post signs at every access road intersection. We believe this requirement would be unnecessary in certain situations, for example, where there are multiple access roads on a large parcel of property owned by one property owner.

We would exempt small systems from the requirements of paragraphs (1)(c), (d), and (g) which are not well-suited to the design specifications of small systems.

We would remove paragraph (2)(c); it is in our interest to prevent threatening conditions on collector circuits, but we are concerned with potential liability this provision could create by establishing a legal duty to monitor and remove third-party facilities.

In paragraph (3)(b), we would clarify the restoration requirement to provide that "a developer shall, to the extent feasible, restore the project area to its pre-construction condition after construction is complete." The language is consistent with current property restoration practice. In paragraph (3)(c), we would clarify that the insurance is "with coverage amounts reasonably determined by the developer, owner or operator" to provide more certainty as to what this provision requires. We would exempt small systems from both of these paragraphs given the minimal construction impacts of small systems. Further, insurance for small systems is already required in specified amounts by PSC 119.[36]

[36] *See* Wis. Admin. Code § PSC 119.05.

In paragraph (4)(c)2., we would remove the requirement to provide annual training. In paragraph (4)(d), we would remove the material after the first sentence. We would also remove paragraph (4)(e). We are committed to collaborating with local emergency officials to assure the proper handling of any emergency situations. However, we feel that a standard approach in this area is not in the best interest of emergency first responders, residents, or developers. We would like the ability to develop procedures and solutions that are most appropriate based on the circumstances. We would also exempt small systems from this section, given that any emergency situations with small systems would not pose any unique challenges for emergency first responders.

In paragraph (5)(a), we would remove the notice requirement to landowners as overbroad; we view the notice requirement to political subdivisions as sufficient to provide residents with access to complaint information, consistent with procedures for making other complaints within a political subdivision. In paragraph (5)(b), we would remove the material after the first sentence. We would like the ability to implement existing company complaint practices. We would also exempt small systems from this section.

K. Decommissioning (PSC 128.19).

We would exempt small systems from paragraph (1)(b), given the minimal decommissioning activity for small systems. We would replace paragraph (1)(c) with the following: "A wind energy system that generates no electricity for a continuous 24 month period is rebuttably presumed to be at the end of its useful life." This change simplifies and provides certainty to the decommissioning process and accommodates operational realities that may prevent a system from operating for extended periods. We would change the

time periods in paragraph (1)(d) to 12 months and 24 months, respectively, based on current practices.

In paragraph (1)(d), we would replace the first sentence with the following: "The requirement to decommission and remove a wind energy system shall not apply if it is likely the wind energy system will operate again in the future or if any of the following apply." This change accommodates the situation where a developer maintains the turbine towers but replaces other components of the system after its useful life. Wind turbine towers can be expected to last two to three lifecycles more than other turbine components, and therefore could be reused. We would add a new paragraph (1)(e)3. that states: "The wind energy system has been prevented from operating as a result of an event beyond the control of the developer, owner or operator." This change addresses the situation where events that would traditionally constitute *force majeure* prevent a system from operating.

We would remove subsections (2) and (5) to provide more certainty and uniformity for developers. These provisions could open the door for substantially varying standards by political subdivisions. In subsection (4), we would change the decommissioning for all property types to require the owner or operator, "to the extent feasible, to restore the project area to its pre-construction condition, provided that the owner or operator need not remove underground facilities more than four feet below grade." This change is consistent with current practices by several developers, which have not presented any problems.

L. Application and Notice Requirements (PSC 128.30).

In paragraph (1)(c), we would require filing of the "projected timeline," to accommodate common changes in construction schedules. We would remove paragraphs (1)(g) and (k) through (m). These provisions are open-ended and provide uncertainty for

developers as to what the rules actually require; these provisions could create inconsistency in political subdivision application approval processes. We would exempt small systems from the requirements of paragraphs (1)(d) through (m), given that small systems have little or no impact on these issues.

In subsection (5), we would require notice only for large systems and only to owners of property adjacent to participating property, rather than all landowners within one-half mile. This requirement is consistent with Wis. Stat. § 66.0401(4)(a)3., which requires notice of application filing only to adjacent landowners.[37] We would exempt small systems from the publication, public participation, and joint application review process requirements in subsections (5) through (7) given their limited community impact.

M. Application Completeness (PSC 128.31).

We would replace the first sentence in subsection (1) with the following: "A political subdivision shall determine whether an application for a large wind energy system is complete applying the application filing requirements under PSC 128.30." This change provides certainty for developers in the application process. As discussed further in Section (Q) below, additional detailed application requirements will not provide any benefit to the process. In this subsection, we would also add the following sentence: "Modifications by the developer to the location of wind energy system facilities shall not be a basis for a determination that an application is incomplete." This change accommodates changes in facility locations based on circumstances such as consultations with state agencies or newly

[37] *See* Wis. Stat. § 66.0401(4)(a)3. ("On the same day that an applicant makes an application for approval under subd. 1. for a wind energy system, the applicant shall mail or deliver written notice of the application to the owners of land adjoining the site of the wind energy system.").

discovered site conditions, and provides developers with assurance that a new application process is not required merely for a change in facility locations.

In subsection (2), we would clarify that a political subdivision may request additional information "required under this chapter," to eliminate the possibility of political subdivisions establishing different information requirements. We would also exempt small systems from the completeness determination in this section, as approval should not require more political subdivision consideration than for a standard building permit.

N. Political Subdivision Review (PSC 128.32).

In paragraph (1)(b) 4., we would add "unless the developer files a new application after the effective date of this chapter" to the end of the sentence. As discussed in Section (B) above, this change allows a developer who has previously filed an application with a political subdivision to file an application for the same project under the new rules.

We would replace subsection (2) with the following: "A political subdivision shall approve an application for a wind energy system if the system substantially complies with the requirements of this chapter." This change provides developers with the certainty that is currently lacking in political subdivision approval processes. As drafted, disputes would undoubtedly arise as to what is an "unreasonable denial." Developers need more predictability to make wind development in Wisconsin feasible and cost-effective.

We would change the last sentence in paragraph (3)(a) to the following: "An approval may be subject to the conditions in s. PSC 128.33(1) and shall not be subject to any other conditions or regulations except as specifically provided in this chapter." For clarification, we would also add a sentence requiring political subdivisions to issue a decision within the time period specified in Wis. Stat. § 66.0401(4)(d)-(e). These changes are

intended to make the rules consistent with Act 40 in terms of allowable political subdivision conditions and regulations.

We would exempt small systems from subsection (4), given that the change in ownership of a small system is similar to the change in ownership of any other residential or commercial equipment. We would also exempt small systems from paragraph (5)(b), except for the application fee. Political subdivision review of a small system application should not require the use of outside consultants or experts.

In paragraph (5)(d), we would include a fee cap of 0.1 percent of the estimated cost of the system, for all systems. In paragraph (5)(e), we would add the following: "provided that the political subdivision must return any unused fee or reimbursement to the developer at the time of its final decision on the wind energy system application." This fee cap will provide political subdivisions with sufficient resources to evaluate an application.

O. Political Subdivision Provisions; Record of Decision (PSC 128.33-34).

In paragraph (1)(a), we would change "current DNR guidelines" and "DNR recommendations" to "DNR requirements." We would also exempt small systems from this requirement. In paragraph (1)(b), we would change "statewide or regional" to "required DNR." These changes remove ambiguity as to the applicable DNR standards and accurately reflect current DNR legal authority for wind projects.

In paragraph (1)(c), we would delete "the proposed type and period of use of local roads" to avoid jurisdictional conflicts with DOT;[38] we would also delete "operation," given the limited impact of wind project activities on roads during operation.

[38] *See* Wis. Stat. §§ 348.25-348.27.

We would delete paragraphs (1)(d) through (g). These requirements provide overly broad discretion to political subdivisions in areas that do not protect health or safety and would increase the cost of the system. In addition, paragraph (1)(f) could create conflicts with existing or future DNR groundwater requirements[39] and, as discussed above, there is no factual basis for arguments that wind projects endanger groundwater.

We would exempt small systems from the post-construction filing requirement in PSC 128.34(3) for reasons discussed herein for other small system exemptions.

Although some opponents of wind energy advocate for "property value protection plans," there is no evidence that wind projects lower property values. Two nationwide studies have shown that wind turbines have not lowered property values or reduced selling prices.[40] Both studies analyzed property values and selling prices in a number of states and counties, including Kewaunee County.[41] In some areas, wind turbines actually increase property values because the land is worth more for wind energy use than for agricultural or grazing use.[42] Wind projects are also designed to preserve existing uses, including recreation.[43] One wind facility recently constructed in Wisconsin was designed to preserve existing snowmobile trails.[44]

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[39] *See* Wis. Admin. Code Chapter NR 40.

[40] *See* ECONORTHWEST, ECONOMIC IMPACTS OF WIND POWER IN KITTITAS COUNTY (2002), *available at* http://efsec.wa.gov/kittitaswind/adj/prefiled/edg/80-2.pdf; RENEWABLE ENERGY POLICY PROJECT, THE EFFECT OF WIND DEVELOPMENT ON LOCAL PROPERTY VALUES (2003), *available at* http://www.repp.org/articles/static/1/binaries/wind_online_final.pdf.

[41] *Id*.

[42] *See* Application of Forward Energy LLC for a Certificate of Public Convenience and Necessity to Construct a Wind Electric Generation Facility and Associated High Voltage Electric Transmission Facilities, to be Located in Dodge and Fond du Lac Counties, Final Decision 33, Docket No. 9300-CE-100 (July 18, 2005) (PSC REF# 37618).

[43] NATIONAL RESEARCH COUNCIL, *supra* note 31 at 153; AWEA, WIND POWER MYTHS VS. FACTS, *supra* note 31.

[44] *See* Application of Forward Energy LLC, Final Decision, *supra* note 31, at 14-15.

While wind facilities over 50 megawatts in capacity, like other utility generating facilities, are exempt from local property tax under Wisconsin law, municipalities and counties that host these wind farms receive a maximum payment from the state equal to $2,000 per megawatt of capacity per year under the state utility credit (subject to per capita limits) and an additional $2,000 per megawatt of capacity per year because wind facilities produce renewable energy (not subject to per capita limits).[45] Thus, for example, a typical 200 megawatt wind facility could produce up to $800,000 per year in payments to the municipality and county that host the wind facility. For projects under 50 megawatts in capacity, developers have voluntarily agreed to make payments in lieu of property taxes.[46] These payments may help reduce the property tax burden of other landowners or provide additional services to residents that would otherwise be too costly under the base property tax levy.[47]

Wind facilities also provide income to local landowners who agree to have wind turbines placed on their land, generally in the form of lease payments. In addition, wind facilities create well-paying local jobs during construction and operation of the facility.[48]

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[45] WISCONSIN LEGISLATIVE FISCAL BUREAU, SHARED REVENUE PROGRAM (COUNTY AND MUNICIPAL AID AND UTILITY AID) (2009), *available at* http://www.legis.state.wi.us/lfb/Informationalpapers/18_shared%20revenue%20program.pdf.

[46] For example, Shirley Wind, LLC agreed to make annual payments of $4,000 per megawatt of capacity, to be shared by the Town of Glenmore, Brown County, and landowners within one-half mile. *See* Town of Glenmore Amended Conditional Use Permit Resolution No. 161 (May 10, 2007).

[47] *See* Application of Forward Energy LLC, Final Decision, *supra* note 42, at 35; Application of Wisconsin Electric Power Company for a Certificate of Public Convenience and Necessity to Construct a Wind Electric Generation Facility and Associated Electric Facilities, to be Located in Fond du Lac County, Final Decision 15, Docket No. 6630-CE-294 (Feb. 6, 2007) (PSC REF# 68958); AWEA, WIND POWER MYTHS VS. FACTS, *supra* note 31.

[48] NATIONAL RESEARCH COUNCIL, *supra* note 31, at 165.

The following table illustrates the level of direct payments made to local property owners, counties and municipalities through lease payments and local aid.[49]

County	Township(s)	Project	Megawatts	Annual Local Aid	Estimated Annual Payments to Property Owners	Estimated Annual Combined Contribution to Local Economies
Dodge	Herman	Butler Ridge Wind Farm	54	$216,000	$297,000	$513,000
Fond du Lac	Empire, Eden	Cedar Ridge Wind farm	68	$272,000	$374,000	$646,000
Fond du Lac/ Dodge	Byron, Oakfield, Leroy, Lomira	Forward Energy Center	129	$516,000	$710,000	$1,226,000
Fond du Lac	Marshfield, Calumet	Blue Sky Green Field	145	$580,000	$725,000	$1,310,000
Total			**396**	**$1,584,000**	**$1,806,000**	**$3,390,000**

Some wind energy opponents have also argued that nonparticipating landowners should receive compensation for "takings." However, a recent federal appellate case firmly rejected the argument that issuing a conditional use permit for a wind project constitutes a taking of neighboring property.[50] Therefore, any provisions in the rule requiring developers to compensate landowners for asserted property value or use impacts outside of voluntary agreements are not justified.

P. Modifications; Monitoring and Mitigation (PSC 128.35-36)

In PSC 128.35(1)(a), we would add the following sentence: "For purposes of this paragraph, the term 'material change' shall not include a change in turbine model, a change

[49] *See* RENEW WISCONSIN, WISCONSIN WIND ENERGY INSTALLATIONS COMPLETED IN 2008, ECONOMIC IMPACT STATEMENT (Nov. 2008).

[50] *Muscarello v. Ogle County Board of Commissioners*, Nos. 08-2464 & 09-1381, 2010 WL 2541067 (7th Cir. June 24, 2010) ("[T]he alleged economic effects are a far cry from the denial of all economically beneficial or productive use of the land. The *Lucas* Court was careful not to create the impression that all zoning decisions that may diminish an owner's potential uses of her property, or compel a less valuable use, are takings.").

in the collection system or access roads, or a change in turbine location within 500 feet of the original turbine location, as long as such change complies with the setback, sound, shadow flicker, signal interference and stray voltage requirements of this chapter." This change assures that common changes to wind projects during project development do not require reapplication. Certain project characteristics may change following approval based on agency consultations or newly discovered site conditions.

We would remove PSC 128.36; although we are willing to work with residents and political subdivisions to resolve complaints, this section provides substantial opportunity for varying requirements by political subdivisions and includes several open-ended and undefined standards that do not provide certainty for developers.

Q. Commission Procedure (PSC 128.40).

We would remove PSC 128.40. Establishing all filing requirements in the rules would be preferable in terms of providing predictability for developers and political subdivisions. Further, detailed filing requirements similar to those in CPCN proceedings may place undue burdens on smaller projects.

We would replace PSC 128.41(7)-(8) with the following: "The commission shall reverse or modify a political subdivision's decision or enforcement action if the decision or enforcement action does not comply with this chapter or is otherwise unreasonable. The political subdivision's decision shall be superseded by the commission's decision and the commission may order an appropriate remedy." This change is necessary for the rules to comply with Wis. Stat. § 66.0401(5)(d).

IV. CONCLUSION.

We thank the Commission for its consideration of these extensive comments and Commission staff for its work throughout this rulemaking process. The length of our comments is an indication of our interest in and commitment to developing wind projects in Wisconsin. With reasonable and proper uniform wind siting rules, Wisconsin can obtain the economic, environmental, and community benefits of increased wind development.

APPENDIX A

ECOMANITY, LLC is an energy consulting company focused on energy efficiency and renewable energy. The company goal is to help clients save money by reducing energy needs. EcoManity helps clients determine whether renewables (including small wind) and energy efficiency make sense for their situation. EcoManity currently has clients throughout Wisconsin that are considering installing small wind systems.

ELEMENT POWER, LLC is a renewable energy independent power producer that develops, acquires, builds, owns and operates utility-scale wind and solar power generation projects around the globe. North American operations are headquartered in Portland, OR and Regional offices are in Sacramento, CA and the San Francisco Bay Area; Minneapolis, MN; and Charlottesville, VA. European operations are headquartered in London, U.K., and Madrid, Spain with regional offices in Italy and Poland. Element is backed by a leading renewable energy private equity fund, Hudson Clean Energy Partners. Based in Teaneck, NJ and London, U.K., Hudson invests exclusively in companies focused on clean energy. Hudson is led by former senior executives of Goldman Sachs and Credit Suisse. Hudson's principals were early investors in several of the most successful renewable energy companies in the world, including Horizon Wind Energy, SunEdison, and First Solar.

Element Power has numerous wind and solar energy projects under development throughout North America. Element currently has wind and solar energy projects in operation in Spain and a development pipeline of over 4,000 megawatts (MW) in the U.S. alone. In Wisconsin specifically, Element Power is currently actively developing a 200 MW wind project in the eastern part of the state and is contemplating a significant expansion of its development portfolio in Wisconsin in the future.

EMERGING ENERGIES OF WISCONSIN, LLC is a Wisconsin-based renewable energy developer founded in 2003. Emerging Energies skillfully develops renewable energy projects to their highest potential while carefully balancing the interests of landowners, neighbors, utilities, municipalities, and investors. Construction is currently underway for the Shirley Wind Project, a state-of-the-art 20-megawatt wind energy facility developed by Emerging Energies in the Town of Glenmore. Emerging Energies is also developing other projects in the state.

GERONIMO WIND ENERGY, LLC is a utility-scale wind energy developer based in Edina, Minnesota, with two active wind farms in Minnesota and a development pipeline of wind farms in various stages of development throughout the Midwest with an aggregate nameplate capacity exceeding 4,000 megawatts of clean energy—roughly enough to power 1.5 million American homes. Geronimo has deep roots in agriculture as well as an appreciation and respect for farming practices and rural communities. As landowner advocates, the Geronimo development team is dedicated to improving the productivity of the American landscape by introducing rural communities to the benefits of wind energy.

HALF MOON POWER, LLC is a Milwaukee-based development company created to rapidly identify, secure and develop viable wind farm sites throughout the Midwest. Half Moon Power is dedicated to developing wind projects while pursuing long-term partnerships with landowners and consumers to help support America's growing demand for economical and clean energy. Half Moon Power has successfully built a portfolio of Midwestern wind farm sites representing over 800 MW of potential power with a further pipeline of quality wind sites throughout the region.

INVENERGY WIND DEVELOPMENT, LLC ("Invenergy") is a leading clean energy company focused on the development, ownership, operation and management of large-scale electricity generation assets in the North American markets. Invenergy and its affiliates currently have over 2,500 megawatts ("MW") of wind energy projects in construction or operation across the country. According to the American Wind Energy Association, Invenergy is the sixth largest owner of wind generation assets in the United States. Invenergy currently has 126 MW operating and over 350 MW of wind energy projects under development in Wisconsin.

LAKE MICHIGAN WIND & SUN, LTD. is a 29-year-old design-build engineering firm that has been involved with several large commercial wind energy projects in Wisconsin and throughout the world, primarily in conjunction with the wind assessment aspect, as well as in the small wind market.

LEAN, CLEAN ENERGY SERVICES is an MREA-trained site assessor, educator, and installer of small wind energy systems. Lean, Clean Energy has performed more than 60 site assessments in Wisconsin, Michigan, and Minnesota over the past six years and had led or been involved in the installation of 32.5 kilowatts of small wind energy in Wisconsin.

NORTHERN POWER SYSTEMS, INC. has over 30 years of experience developing and manufacturing advanced, innovative wind turbines. The company's next generation wind turbine technology is based on a vastly simplified architecture that utilizes a unique combination of permanent magnet generators and direct-drive design. Northern currently sources several manufacturing parts from Wisconsin's industrial sector for its 100kW turbine, as well as for its 2.2MW utility-scale turbine that is in development. With full-time offices in Wisconsin, a growing number of successful Small Wind (100kW) installations currently commissioned throughout the state, and a partnership with the University of Wisconsin in helping fund their Power Electronics Engineering program, Northern Power is strongly committed to the success of the Small Wind market in Wisconsin.

SEVENTH GENERATION ENERGY SYSTEMS, INC. ("SGES") is a non-profit engineering firm specializing in education, development and installation of renewable energy systems powered by the wind and sun. Founded in 2002, SGES is the leading installer of small wind systems in Wisconsin with over 1,000 kW of systems installed and another 500 kW of small wind systems in the pipeline for installation this year throughout Wisconsin. SGES also has 50 MW of community-scaled wind projects in the pipeline in Calumet, Green and Door counties under development. SGES employs 15 full-time and 5 part-time employees and is

enjoying rapid growth, adding Wisconsin jobs despite the barriers imposed through the balkanization of regulations in the state.

SUSTAINABLE LIVING GROUP (SLG) is dedicated to educating our community—Sheboygan, Wisconsin and surrounding areas—about the benefits of sustainable living practices and to network and promoting the people, businesses, and organizations that are already doing things that are sustainable. SLG has been working hard to promote sustainable living practices and we believe that wind power is a step in the right direction. At SLG, we believe that wind power is a better, cleaner source of power than most other alternatives in our area. The SLG group currently promotes and networks with small wind installers and owners in Wisconsin.

TIMMERMAN'S TALENTS, LLC is a wind site assessor and full service installer of small wind energy systems based in Platteville.

WAUSAUKEE COMPOSITES, INC. is a leading manufacturer of highly engineered composite plastic and fiberglass components for Original Equipment Manufacturer (OEM) customers in the Wind Energy, Industrial Truck and Tractor, Mass Transit, Medical, Commercial Furnishings, Therapeutic Systems, Recreation, and Corrosion-Resistant Materials Handling industries, worldwide. The company operates four manufacturing facilities in Wisconsin and Michigan, where it has approximately 500 employees. WAUSAUKEE COMPOSITES, INC. has created more than 100 jobs in Wisconsin since 2007 in the manufacture of Class V utility-grade wind turbine generator nacelle housings, spinner hubs and nosecones for wind turbines producing more than 250 MW of generating capacity at our Cuba City, Wisconsin, and Wausaukee, Wisconsin manufacturing plants.

WIND CAPITAL GROUP, LLC, formed in 2005, is a successful Midwest-based wind farm developer, with a regional office in Madison, committed to using American technology and know-how to harness clean, renewable sources of energy, create jobs, generate opportunity, and help forge a path to American energy independence.

WIND ON THE WIRES is a non profit 501(c)3 organization comprised of wind developers, environmental organizations, tribal representatives, public interest groups, clean energy advocates and businesses providing goods and services to the wind industry. Our mission is to overcome the barriers to bringing wind power to market by addressing technical and regulatory issues, as well as through education and public outreach. Wind on the Wires works on a number of wind power issues, including building new transmission lines, improving use of the existing electricity grid, siting of wind projects, advocating for public policy that encourages wind development, and engaging the public on wind issues. We are a key regional partner of the American Wind Energy Association and work closely with them on wind power and transmission issues. For more information please visit our website at www.windonthewires.org.

TEXT OF PROPOSED RULE

SECTION 1. Chapter PSC 128 is created to read:

CHAPTER PSC 128

WIND ENERGY SYSTEMS

Subchapter I General

Subchapter II Developer Requirements

Subchapter III Political Subdivision Procedure

Subchapter IV Commission Procedure

Subchapter I

General

PSC 128.01 Definitions. In this chapter:

(1) "Commission" means the public service commission.

(2) "Developer" means a person involved in acquiring the necessary rights, permits and approvals, and otherwise planning for the construction and operation of a wind energy system, ~~regardless of whether the person will own or operate the wind energy system~~excluding third-party consultants. "Developer" includes, prior to completion of construction of a wind energy system, an owner and an operator.

(3) "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 for underground collector circuit facilities, and concrete structures four feet or more below grade.

(4) "DNR" means the Wisconsin department of natural resources.

(5) "Large wind energy system" means a wind energy system with an installed nameplate capacity of greater than 100 kilowatts.

(6) "Maximum blade tip height" means the nominal hub height plus the nominal blade length, 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, as listed in the wind turbine specifications provided by the wind turbine manufacturer.

(8) "Nonparticipating property" means real property for which there is no agreement between the landowner and developer that permits the construction of any part of a wind energy system on the property.

(9) "Nonparticipating residence" means an occupied permanent residence located on a nonparticipating property.

(10) "Occupied community building" means a school, church, daycare facility or public library.

(11) "Operator" means the person responsible for the operation and maintenance of a wind energy system.

(12) "Owner" means a person with an ownership interest in a wind energy system.

(13) "Participating property" means ~~any of the following:~~

~~(a) R~~real property which is subject to an agreement between the landowner and the developer, owner, or operator for the construction of any portion of a wind energy system on or in the vicinity of the property.

~~(b) Real property that is the subject of an agreement that includes all of the following items:~~

~~1. Provides for the payment of monetary compensation to the landowner from the developer, owner or operator regardless of whether any part of a wind energy system is constructed on the property.~~

~~2. Specifies in writing that the landowner's acceptance of payment establishes the landowner's property as a participating property.~~

(14) "Political subdivision" has the meaning given in s. 66.0401 (1e) (c), Stats.

(15) "Residence" includes a permanent occupied personal residence, hospital, community-based residential facility, residential care apartment complex or similar facility, and nursing home.

(16) "Regulation" includes any ordinance or resolution adopted by the governing body of a political subdivision relating to a wind energy system and any contract or agreement entered into by a political subdivision and a developer relating to a wind energy system.

(17) "Shadow flicker" means a pattern of changes in light intensity resulting from the shadow of rotating wind turbine blades being cast on a residence or occupied community building.

(18) "Small wind energy system" means a wind energy system that has an installed nameplate capacity of 100 kilowatts or less.

(19) "Turbine host property" means real property which is subject to an agreement between a landowner and a developer, owner, or operator for the construction of one or more wind turbines.

~~**(20)** "Wind easement" means a written document that creates a legal interest in real property that permits a developer or owner to place and construct a wind turbine or associated facilities on the property.~~

(~~21~~20) "Wind energy system" has the meaning given in s. 66.0403(1)(m), Stats.

~~**(22)** "Wind lease" means a written agreement between a landowner and a developer, owner or operator that establishes terms and conditions associated with the placement or construction of a wind turbine or associated facilities on a landowner's property.~~

PSC 128.02 Applicability. (1) (a) Except as provided in par. (b), this chapter applies to wind energy systems.

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

1. A wind energy system for which a certificate of public convenience and necessity application has been filed with the commission before the effective date of this chapter…[LRB inserts date].

2. A wind energy system for which construction began before the effective date of this chapter …[LRB inserts date].

3. A wind energy system placed in operation before the effective date of this chapter …[LRB inserts date].

4. A wind energy system approved by a political subdivision before the effective date of this chapter …[LRB inserts date].

5. A wind energy system proposed by a developer in an application filed before the effective date of the chapter …[LRB inserts date] with a political subdivision that has an established procedure for review of applications for wind energy systems, unless the developer files a new application after the effective date of this chapter.

6. Except as required by s. 196.491 (3) (dg), a wind energy system that is a large electric generating facility as defined in s. 196.491 (1) (g).

(c) If a developer intends to submit an application ~~for the installation or use of a wind turbine with a maximum blade tip height exceeding 500 feet or~~ for a wind energy system proposed to be located in Lake Michigan or Lake Superior, the developer shall file a petition with the commission for the commission to promulgate rules for the use and installation of such wind energy systems.

(2) Nothing in this chapter shall preclude the commission from giving individual consideration to exceptional or unusual situations and ~~applying requirements~~granting a variance to an individual wind energy system ~~that may be lesser, greater, or different from those~~from any requirement provided in this chapter.

Subchapter II

Developer Requirements

PSC 128.10 Development of a wind energy system; Notice requirements. (1) GENERAL NOTIFICATION REQUIREMENTS. (a) At least ~~270~~ 30 days before a developer files an application to construct a large wind energy system, or ~~180~~ 60 days before the planned start of construction of a large wind energy system, whichever is earlier, a developer shall provide written notice of the planned wind energy system to all adjacent landowners ~~within one mile of the planned wind energy system~~ and to all political subdivisions within which the wind energy system may be located. At least 30 days before a developer files an application to construct a small wind energy system, a developer shall provide written notice of the planned small wind energy system to all adjacent landowners. For a large wind energy system, a developer shall file a copy of the notice with the commission.

(b) The developer shall include all of the following in the notice under par. (a):

1. A ~~complete~~ description of the wind energy system, including the projected number and size of the wind turbines.

2. A map showing the ~~planned~~ projected general location of the wind energy system (provided the developer shall not be required to show specific turbine locations).

3. Contact information for the developer.

4. A list of all potential major or material permits or approvals the developer anticipates may be necessary for construction of the wind energy system.

5. For a large wind energy system, ~~W~~whether the developer is requesting a joint application review process under s. PSC 128.30(7) and the names of any other political subdivision that may participate in the joint review process.

(2) DNR NOTIFICATION. ~~(a)~~ At least ~~90~~ 30 days before a developer files an application to construct a large wind energy system or ~~120~~ 60 days before the start of construction of a large wind energy system if no application process is required by the political subdivision, the developer shall notify the DNR of the proposed large wind energy system and the proposed location of all large wind energy system facilities. A developer of a large wind energy system shall consult with the DNR and incorporate into large wind energy system siting decisions required permitting considerations for wetlands, waterways, groundwater, construction site erosion control, and threatened or endangered resources. A developer of a small wind energy system shall not be required to notify or consult with the DNR.

(3) TRANSPORTATION NOTIFICATIONS. (a) At least ~~90~~ 30 days before a developer files an application to construct a large wind energy system, or ~~120~~ 60 days before the start of construction of a large wind energy system if no application process is required by the political subdivision, the developer shall notify the Wisconsin Department of Transportation of the proposed large wind

energy system and the proposed location of all large wind energy system facilities. The developer shall also notify the highway department of any political subdivision within which the large wind energy system may be located.

~~(b) For a large wind energy system, a~~A developer of a large wind energy system shall ~~prepare a transportation plan, in~~ consult~~ation~~ with the Department of Transportation ~~and affected political subdivisions, that minimizes impacts to existing traffic patterns, adheres to established road weight limits and provides for mitigating, assessing and repairing, at the developer, owner or operator's expense, road damage caused by construction and operation of the wind energy system~~and incorporate into large wind energy system delivery decisions required permitting considerations from the Department of Transportation. A developer of a small wind energy system shall not be required to notify or consult with the Department of Transportation or the highway department of any political subdivision.

(4) EMERGENCY SERVICE NOTIFICATIONS. (a) At least ~~90~~ 30 days before a developer files an application to construct a large wind energy system, or ~~120~~ 60 days before the start of construction of a large wind energy system if no application process is required by the political subdivision, the developer shall notify ~~all of the following of the proposed wind energy system:~~

~~1. Emergency first responders including fire, police, ambulance and air ambulance services serving the proposed wind energy system location.~~

~~2. E~~emergency first responders of a political subdivision within which the large wind energy system may be located.

(b) For a large wind energy system, the developer shall consult and coordinate with local first responders and air ambulance services regarding the development of an emergency evacuation plan, including the locations of alternate landing zones for emergency services aircraft. The developer

shall file the final plan with the political subdivision, using confidential filing procedures if necessary. A developer of a small wind energy system shall not be required to notify or consult with emergency first responders or air ambulance services.

~~**PSC 128.11 Real property provisions. (1)** WIND EASEMENT. (a) A property owner may grant another person a wind easement in the same manner and with the same effect as a conveyance of an interest in real property. A wind easement shall be in writing and shall be filed with the register of deeds for the county in which the property is located.~~

~~(b) A wind easement shall include a legal description of the property subject to the wind easement.~~

~~**(2)** WIND LEASE REQUIREMENTS. A wind lease shall include provisions that require all of the following:~~

~~(a) Require the developer, owner and operator of the wind energy system to comply with all federal, state and local laws and regulations applicable to the wind energy system.~~

~~(b) Permit the property owner to terminate the wind lease if the portion of the wind energy system located on the property has not operated for a period of at least 18 months unless the property owner receives the normal minimum payments that would have occurred if the wind energy system had been operating during that time. In this paragraph, "normal minimum payments" means the minimum payments as provided in the wind lease, or if not provided for in the wind lease, payments at least equal to the periodic payments received by the property owner in the last full calendar year that the wind energy system was in full operation.~~

~~(c) Specify the circumstances under which the developer, owner or operator of the wind energy system may withhold payments from the property owner.~~

~~(d) Permit the property owner to rescind an executed wind lease within 3 business days of signing the wind lease.~~

~~**(3)** WIND LEASE PROHIBITIONS. A wind lease may not include provisions that require any of the following:~~

~~(a) Require the parties to maintain the confidentiality of any terms of a proposed wind lease except that the parties may include a confidentiality agreement regarding the compensation terms contained in the final signed wind lease.~~

~~(b) Make the property owner liable for any property tax associated with the wind energy system or other equipment related to the production of electricity by the wind energy system.~~

~~(c) Make the property owner liable for any violation of federal, state or local laws and regulations by the developer, owner or operator of the wind energy system.~~

~~(d) Make the property owner liable for any damages caused by the wind energy system or the operation of the wind energy system, including liability or damage to the property owner or to third parties.~~

~~(4) MITIGATION AGREEMENTS. A developer, owner or operator may not, as a condition of accepting any benefit to settle a noise, signal interference, stray voltage or shadow flicker mitigation issue, require a property owner to keep the settlement confidential or require the property owner to waive any right to make a future claim about an unrelated issue.~~

~~**PSC 128.12 Existing property uses.** A developer shall make reasonable efforts to ascertain and accommodate existing land uses and commercial enterprises located on nonparticipating properties within one mile of a proposed wind turbine site.~~

PSC 128.1~~3~~1 Siting criteria. (1) DISTANCE AND HEIGHT REQUIREMENTS. (a) A developer shall design and construct a wind energy system using the wind turbine setbacks shown in Table 1

based on the buildings, residences, property lines and other physical conditions existing on the earlier of the date an application for approval of a wind energy system is filed with a political subdivision or the start of construction.

Table 1

Setback Description	**Setback Distance for Large Wind Energy System Turbines**	**Setback Distance for Small Wind Energy System Turbines**
Occupied Community Buildings	~~3.1 times the maximum blade tip height~~1,000 feet	1.0 times the maximum blade tip height
Participating Residences	1.1~~5~~ times the maximum blade tip height	None
Nonparticipating Residences	~~3.1 times the maximum blade tip height~~1,000 feet	1.0 times the maximum blade tip height
Participating Property Lines	None	None
Nonparticipating Property Lines	1.1 times the maximum blade tip height	1.0 times the maximum blade tip height
Public Road Right-of-Way	1.1 times the maximum blade tip height	1.0 times the maximum blade tip height
Wetlands; Ordinary High Water Mark of Lakes and Waterways (Beyond DNR Requirements)	~~1.1 times the maximum blade tip height~~None	None
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	1.0 times the maximum blade tip height
Overhead Utility Service Lines – Lines to individual houses or outbuildings	None	None

(b) Wind turbine setback distances shall be measured as a straight line from the vertical centerline of the wind turbine tower to the nearest point on the permanent ~~foundation~~ wall of an occupied building or residence or to the nearest point on the property line or feature, as applicable.

~~(c) A developer shall work with a political subdivision to site wind turbines to minimize individual hardships.~~

(~~d~~c) The owner of a participating residence, occupied community building or nonparticipating residence may waive the wind turbine setbacks in Table 1 for those structures and property lines~~,~~ ~~except that the setback for a large wind energy system may not be less than 1.5 times the maximum blade tip height, and the setback for a small wind energy system may not be less than 1.1 times the maximum blade tip height.~~.

(2) POLITICAL SUBDIVISION CRITERIA. (a) A political subdivision may not establish location or height requirements different than those in this chapter.

(b) A political subdivision may not set height or location 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 ss. 114.135 or 114.136, Stats., the political subdivision may adopt wind turbine height or distance provisions that are based on, but not more restrictive than, the federal aviation administration obstruction standards in CFR title 14, part 77.

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

(d) A political subdivision may not set height or distance limitations for a wind turbine near a private use airport.

(e) 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.

(3) LINE-OF-SIGHT COMMUNICATION TECHNOLOGIES STANDARD. The developer, owner or operator ~~may not construct wind energy system facilities within the path~~ of a large wind energy system shall use reasonable efforts to avoid or mitigate interference with existing line-of-sight communication technologies. ~~A political subdivision may require a developer to provide information showing that wind turbines and other wind energy system facilities will not be placed within the path of existing line-of-sight technologies.~~

PSC 128.14~~2~~2 ~~Noise~~ Sound Criteria. (1) PLANNING. A developer shall comply with the ~~noise~~ sound standards in this section when making wind turbine siting decisions.

(2) ~~NOISE~~ SOUND STANDARD. (a) Compliance with ~~noise~~ sound limits shall be measured or otherwise evaluated at the outside wall of the nonparticipating residence or occupied community building. If sound level measurements are used to evaluate compliance, those measurements shall be made at the outside wall nearest to the closest wind turbine~~, or at an alternate wall as specified by the resident~~. The developer may take additional measurements to evaluate compliance in addition to those specified by this section.

(b) ~~Except as provided in sub. (3)(a) and (d), a~~A developer shall operate the wind energy system in a manner that sound produced by the wind energy system does not exceed 50 dBA at any nonparticipating residence or occupied community building existing on the earlier of the date an application for approval of a wind energy system is filed with a political subdivision or the start of construction~~existing on the date of approval of the wind energy system by the political subdivision~~.

(3) MITIGATION. (a) A developer, owner or operator of a large wind energy system shall test for compliance with the ~~noise~~ sound limits upon complaint by a nonparticipating resident. ~~If the complaint relates to noise during nighttime hours, the noise limit for those areas related to the complaint shall be reduced to 45 dBA during nighttime hours and the developer, owner or operator shall ensure the seasonally reduced nighttime noise limit is met. For purposes of this paragraph, nighttime hours are the hours between 10:00 p.m. to 6:00 a.m. daily, from April 1 to September 30.~~

~~(b) Methods available for the developer, owner or operator to comply with noise limits shall include operational curtailment of a wind turbine.~~

~~(c) A developer shall provide notification of the requirements of this section to potentially affected owners of nonparticipating residences and occupied community buildings before the initial operation of the wind energy system.~~

~~(d) 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 developer, owner or operator shall promptly take corrective action to eliminate the cause of the steady pure tone. Operational curtailment of a wind turbine during nighttime hours may be used to comply with this paragraph until the cause of the steady pure tone can be permanently eliminated. This paragraph does not apply to rhythmic sound that may be generated by the rotation of wind turbine blades.~~

(~~e~~b) A developer shall evaluate compliance with the ~~noise~~ sound limits as part of pre-~~ and post-~~construction ~~noise~~ sound studies for large wind energy systems based on the commission sound measurement protocol in effect at the time of application. ~~A developer, owner or operator shall conduct pre- and post-construction noise studies as described in the most current version of the noise measurement protocol.~~

(f) The commission shall establish a ~~noise~~ sound measurement protocol, which shall contain minimum requirements for pre-~~ and post~~-construction ~~noise~~ sound studies. The commission may revise the noise measurement protocol as necessary. The commission shall make the noise measurement protocol available to the public on the commission's website.

(~~g~~c) An owner of an affected residence may relieve the developer of the requirement to meet any of the ~~noise~~ sound requirements in this section at the affected residence by written contract with the developer. Unless otherwise provided in a contract signed by an owner of an affected residence, a waiver by an owner of an affected residence ~~is not an encumbrance on the real property and~~ runs with the land until the wind energy system is decommissioned.

PSC 128.1~~5~~3 Shadow flicker. (1) PLANNING. A developer shall consider shadow flicker in large wind energy system turbine siting decisions. A developer shall plan the proposed large wind energy system in a manner that minimizes shadow flicker at an occupied community building or participating or nonparticipating residence to the extent reasonably practicable to comply with sub. (2). A developer shall use shadow flicker computer modeling to estimate the amount of shadow flicker anticipated to be caused by a large wind energy system. A developer of a small wind energy system shall not be subject to shadow flicker requirements.

(2) STANDARD. The developer shall design a large wind energy system so that computer modeling indicates that no nonparticipating residence existing on the earlier of the date an application for approval of a wind energy system is filed with a political subdivision or the start of construction would experience more than ~~30~~ 45 hours per year of shadow flicker based on the projected weather-adjusted annual average through modeling.

(3) MITIGATION. (a) A developer, owner and operator of a large wind energy system shall work with an owner of a nonparticipating residence to mitigate the effects of shadow flicker. The developer shall provide reasonable shadow flicker mitigation for a residence experiencing ~~25~~ 45 hours per year or more of shadow flicker. ~~The developer shall model shadow flicker and a residence is eligible for mitigation if computer modeling shows that shadow flicker exceeds 25 hours per year at the residence. The owner of the residence is not required to document the actual hours per year of shadow flicker if modeling indicates the residence is eligible for mitigation. A residence that exceeds 25 hours per year of shadow flicker based on records kept by the resident shall also be eligible for mitigation.~~

~~(b) A developer, owner or operator may provide shadow flicker mitigation for residences experiencing less than 25 hours per year of shadow flicker.~~

~~(c) The requirement under par. (a) to mitigate shadow flicker at an eligible residence is triggered when the developer, owner or operator receives a complaint regarding shadow flicker. If shadow flicker mitigation is required, the developer, owner or operator shall allow the owner of the residence to choose a preferred reasonable mitigation technique, including installation of blinds or plantings at the developer, owner or operator's expense.~~

~~(d) A developer, owner or operator shall provide notification to the owners of potentially-affected residences of the provisions of this section before initial operation of the wind energy system.~~

(~~e~~b) An owner of an affected residence may by written contract waive the developer, owner or operator's requirement to provide reasonable shadow flicker mitigation. A waiver by an owner of an affected residence ~~is an encumbrance on the real property and~~ runs with the land until the wind energy system is decommissioned.

PSC 128.14~~6~~ Signal interference. (1) PLANNING. A developer of a large wind energy system shall consider radio, television and cellular telephone signal interference in large wind energy system turbine siting decisions and shall use reasonable efforts to avoid causing such interference to the extent practicable. ~~A political subdivision may establish reasonable standards regarding radio, television, and cellular telephone interference.~~

(2) RADIO AND TELEVISION INTERFERENCE MITIGATION. A developer, owner or operator of a large wind energy system shall use reasonable efforts to mitigate radio and television signal interference caused by the wind energy system to the extent practicable. ~~Before implementing remedial measures, the developer, owner or operator shall consult with affected residents regarding the preferred reasonable mitigation solutions for radio and television interference problems. A developer, owner or operator shall mitigate radio and television interference by making a resident's preferred reasonable mitigation solution permanent.~~

(3) CELLULAR TELEPHONE INTERFERENCE MITIGATION. A developer, owner or operator of a large wind energy system shall use reasonable efforts to mitigate cellular telephone signal interference caused by the wind energy system to the extent practicable. The developer, owner or operator of a large wind energy system shall work with affected cellular providers to provide adequate coverage in the affected area. ~~Acceptable mitigation techniques for lost or weakened cellular telephone communications include installing an additional micro cell, cell, or base station facility to fill in the affected area. The micro cell, cell, or base station may be installed on a structure within the wind energy system.~~

PSC 128.15~~7~~ Stray voltage. (1) STRAY VOLTAGE TESTING REQUIRED. A ~~D~~developer, owner or operator of a large wind energy system shall work with the local electric distribution

companies to test for stray voltage at ~~all~~ dairy ~~and confined animal~~ operations upon request from an owner of a dairy operation within one-half mile of any large wind energy system facility~~, before any construction that may interfere with testing commences and again after construction of the wind energy system is completed~~. Before any testing, a developer, owner or operator of a large wind energy system shall work with commission staff to determine the manner in which stray voltage measurements will be conducted and on which properties.

(2) RESULTS OF TESTING. A developer, owner, or operator of a large wind energy system shall provide to commission staff the results of stray voltage testing.

(3) REQUIREMENT TO RECTIFY PROBLEMS. A ~~D~~developer, owner or operator of a large wind energy system shall work with the electric distribution utilities and ~~farm~~ dairy operation owners to rectify any stray voltage problems arising from the construction and operation of the large wind energy system that exceed stray voltage standards established by the commission.

PSC 128.16~~8~~ Construction and operation. (1) PHYSICAL CHARACTERISTICS. ~~(a) A developer, owner or operator may not display advertising material or signage other than warnings, equipment information, or indicia of ownership on a wind turbine. A developer, owner or operator may not attach any flag, decorative sign, streamers, pennants, ribbons, spinners, fluttering, or revolving devices to a wind turbine. A developer, owner or operator may attach a safety feature or wind monitoring device to a wind turbine.~~

~~(b) A developer, owner or operator shall ensure that a wind turbine has a neutral finish.~~

(~~c~~a) A developer, owner or operator of a large wind energy system shall install lighting that complies with standards established by the federal aviation administration.

(~~d~~b) A developer, owner or operator of a large wind energy system ~~turbine~~ shall ensure that a wind turbine is not climbable except by authorized personnel.

(~~e~~c) An owner or operator of a wind energy system shall ensure that all access doors to the wind turbines and electrical equipment are locked when authorized personnel are not present.

(~~f~~d) A developer, owner or operator of a wind energy system shall place appropriate warning signage on or at the base of each wind turbine.

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

(2) ELECTRICAL STANDARDS. (a) A developer, owner or operator shall construct, maintain, and operate collector circuit facilities in a manner that complies with the national electrical safety code and Wis. Admin. Code 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) A developer shall construct collector circuit facilities underground to the extent practicable.

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

(3) CONSTRUCTION, OPERATION, AND MAINTENANCE STANDARDS. (a) A developer, owner or operator 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.

(b) Except for the area occupied by the wind energy system and related facilities, including permanent access roads, a developer shall, to the extent feasible, restore the ~~topography, soils and vegetation of the~~ project area to ~~original~~ its pre-construction condition after construction is complete.

(~~c~~b) A developer, owner or operator of a large wind energy system shall carry general liability insurance with coverage amounts reasonably determined by the developer, owner or operator relating to claims for property damage or bodily injury arising from the construction or operation of the large wind energy system and shall include turbine host property owners as additional insured persons on the policy.

(4) EMERGENCY PROCEDURES. (a) In this subsection, "wind energy system emergency" means a condition or situation at a large wind energy system that presents a significant threat of physical danger to human life or a significant threat to property. "Wind energy system emergency" includes natural events that cause damage to large wind energy system facilities.

(b) An owner or operator of a large wind energy system shall notify a political subdivision within 24 hours of a wind energy system emergency and the nature of the wind energy system emergency.

(c) An owner or operator of a large wind energy system shall establish and maintain liaison with a political subdivision and with fire, police, and other appropriate first responders serving within one-half mile of the large wind energy system to do all of the following:

1. Learn the responsibility and resources of each government organization or first responder entity that would respond to a wind energy system emergency.

2. Acquaint the political subdivision and fire, police and other appropriate first responders serving within one-half mile of the large wind energy system with the owner and operator's abilities to respond to a wind energy system emergency ~~and provide annual training for appropriate officials regarding responding to a wind energy system emergency until the wind energy system has been decommissioned~~.

3. Identify the types of wind energy system emergencies subject to notification under par. (b).

4. Plan how the owner or operator and fire, police, and other first responders can engage in mutual assistance to minimize hazards to life and property.

(d) An owner or operator of a large wind energy system shall establish written procedures that provide for shutting down the wind energy system or a portion of the system, as appropriate, in the event of wind energy system emergency. ~~The procedures shall provide for all of the following:~~

~~1. Establishing and maintaining adequate means of communication with a political subdivision and with fire, police, and other appropriate first responders.~~

~~2. Advising an affected political subdivision of a wind energy system emergency.~~

~~3. Prompt and effective response to a notice of any of the following types of emergencies:~~

~~a. Mechanical failure of wind turbine facilities.~~

~~b. Fire associated with a wind turbine or associated facilities.~~

~~c. Emergency situations requiring the evacuation of a person or persons from the wind energy system.~~

~~d. Natural disaster.~~

~~e. Police actions, such as a request or order by police or fire officials to interrupt operation of any wind energy system facility due to an emergency.~~

~~4. Actions directed toward protecting people first and then property.~~

~~5. Making safe any actual or potential hazard to people or property.~~

~~6. Notifying a political subdivision and fire, police, and other appropriate first responders of a wind energy system emergency and coordinating with planned and actual responses during an emergency.~~

~~(e) An owner or operator of a large wind energy system shall do all of the following:~~

~~1. Furnish its supervisors and employees who are responsible for emergency action a copy of the latest edition of the emergency procedures established under par. (d) 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, the owner, or operator shall review employee activities to determine whether the procedures were effectively followed.~~

(5) COMPLAINT PROCESS. (a) Before construction of a large wind energy system begins, a developer shall provide written notice of the process for making complaints and obtaining mitigation measures to ~~all residents and landowners within one-half mile of the wind energy system. A developer shall include a contact person and telephone number for complaints or concerns during construction, operation, maintenance and decommissioning. A developer shall provide a copy of the notice to~~ any political subdivision within which the large wind energy system will be located, and the developer, owner or operator shall keep the contact person and telephone number for complaints or concerns up-to-date and on file with the political subdivision.

(b) A developer, owner or operator of a large wind energy system shall maintain a log of all complaints received regarding the large wind energy system. ~~The log shall include the name and address of the complainant, the nature of the complaint, and the steps taken to resolve the complaint. A developer, owner or operator shall make copies of this complaint log available, at no cost, to any~~

~~monitoring committee established under s. PSC 128.36 by a political subdivision in which the wind energy system is located. If a monitoring committee has not been established, the developer, owner or operator shall make a complaint log available to the political subdivision upon request.~~

(c) A developer, owner or operator shall make a complaint log available to the commission upon request.

PSC 128.17~~9~~ Decommissioning. (1) REQUIREMENT TO DECOMMISSION. (a) Except as provided in par. (e), the owner or operator of a wind energy system shall decommission and remove a wind energy system when the system is at the end of its useful life.

(b) A developer of a large wind energy system shall include in an application to construct a wind energy system a decommissioning and site restoration plan that provides reasonable assurances that the developer, owner or operator of a large wind energy system will be able to comply with this section.

(c) ~~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 6 month period. This presumption may be rebutted by the owner or operator by submitting to the political subdivision a plan outlining the steps and schedule for returning the wind energy system to service within 6 months after the date the wind energy system is presumed to be at the end of its useful life. Upon application by the owner or operator, a political subdivision shall grant an extension of the time period for returning the wind energy system to service by an additional 6 month period if the owner or operator demonstrates an ongoing good faith effort to return the wind energy system to service.~~ A wind energy system that generates no electricity for a continuous ~~18~~ 24 month period is ~~ir~~rebuttably presumed to be at the end of its useful life.

(d) When decommissioning is required, the owner or operator shall begin decommissioning within ~~9~~ 12 months after the wind energy system has reached the end of its useful life. The owner or operator shall complete decommissioning and removal of the wind energy system within ~~18~~ 24 months after the wind energy system has reached the end of its useful life.

(e) ~~A political subdivision may grant a temporary deferral of t~~The requirement to decommission and remove a wind energy system shall not apply if it is likely the wind energy system will operate again in the future ~~and~~ or if any of the following apply:

1. The wind energy system is part of a prototype or other demonstration project being used for ongoing research or development purposes.

2. The wind energy system is being used for educational purposes.

3. The wind energy system has been prevented from operating as a result of an event beyond the control of the developer, owner or operator.

~~**(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~~2) FINANCIAL RESPONSIBILITY. An ~~developer,~~ owner or operator of a large wind energy system shall provide information to the political subdivision that demonstrates proof of the owner's financial ability to comply with requirements regarding decommissioning in sub. (1).

(~~4~~3) SITE RESTORATION. If a large wind energy system was constructed on land owned by a person other than the owner or operator of the large wind energy system, the owner or operator of the wind energy system shall, to the extent feasible, restore the project area to its pre-construction condition, provided that the owner or operator need not remove underground facilities more than four feet below grade. ~~ensure that the property is restored so that the topography, soils, and vegetation are consistent with or similar to that of immediately adjacent properties at the time of decommissioning.~~

~~If a large wind energy system was constructed on a brownfield, as defined in s. 560.13 (1) (a), Stats., the owner or operator shall restore the property to eliminate effects caused by the large wind energy system.~~

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

~~(b) Within 12 months of receiving a notice of decommissioning, a political subdivision shall determine whether the wind energy system has satisfied the requirements of subs. (1)(a) and (4).~~

Subchapter III

Political Subdivision Procedure

PSC 128.30 Application and notice requirements. (1) CONTENTS OF AN APPLICATION. Except as provided in sub. (3), ~~I~~if approval by a political subdivision is required for a proposed wind energy system or expansion of an existing wind energy system, a developer seeking the political subdivision's approval shall complete and file with the political subdivision an application that includes all of the following:

(a) Wind energy system description and maps.

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

(c) Construction process and projected timeline.

(d) Impact on local infrastructure.

(e) Information regarding ~~noise~~sound.

(f) Information regarding shadow flicker.

~~(g) Effects on existing land uses within one-half mile of the wind energy system.~~

(~~hg~~) Effects on air traffic.

(~~ih~~) Effects on line-of-sight communications.

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

~~(k) Except as provided in sub. (3), information required under s. PSC 128.40.~~

~~(l) Any other information necessary to understand the proposed wind energy system.~~

~~(m) Information related to the wind energy system requested by the political subdivision.~~

(2) ACCURACY OF INFORMATION. The developer shall ensure that information contained in an application is accurate and internally consistent.

(3) SMALL WIND ENERGY SYSTEM APPLICATIONS. For a small wind energy system, a developer is not required to file the information required under sub. (1)(d) through (~~k~~i).

(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 a developer to file an application electronically.

(5) NOTICE TO PROPERTY OWNERS. (a) On the same day a developer files an application for a large wind energy system, the developer shall mail or deliver written notice of the filing of the application to property owners and residents located ~~within one-half mile of~~adjacent to proposed turbine host properties or any large 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. Developer contact information.

(b) After a political subdivision receives an application for a large wind energy system, the notice required to be published by the political subdivision under s. 66.0401 (4) (a) 1., Stats., shall include 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 large 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 large wind energy system.

(c) Except as provided in this paragraph, a political subdivision shall hold at least one public meeting to obtain comments on and to inform the public about an application. A political subdivision is not required to hold a public comment meeting on an application to construct a small wind energy system ~~that is to be located entirely on land owned by the developer~~.

(7) JOINT APPLICATION REVIEW PROCESS. (a) If the large wind energy system is proposed to be located in the jurisdiction of more than one political subdivision, the political subdivisions involved may conduct a joint application review process on their own motion or upon request. If a developer requests a joint application review, the developer shall include the request in its notice of intent to file an application with the political subdivision under s. PSC 128.10(1). If the developer requests a joint application review process, the political subdivisions involved shall consider this request within 60 days of receipt of the developer's notice of intent to file an application.

(b) 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 developer'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 developer shall file the application with all of the political subdivisions participating in the joint review process.

PSC 128.31 Application completeness. (1) INCOMPLETE APPLICATIONS. A political subdivision shall determine whether an application for a large wind energy system is complete applying the ~~detailed~~ application filing requirements ~~established by the commission~~ under PSC 128.~~4~~30. The political subdivision shall notify the developer 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 developer 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 shall state the reasons for the determination. Modifications by the developer to the location of wind energy system facilities shall not be a basis for a determination that an application is incomplete. A developer 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 the developer may re-file an application. For incomplete applications, the developer shall provide additional information required under this chapter as specified in the notice. Subsequent 45-day completeness review periods shall begin the day after the political subdivision receives responses to

all items identified in the notice. 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 required under this chapter after determining that an application is complete. A developer shall provide additional information in response to all reasonable requests. A developer shall respond to all inquiries made subsequent to a determination of completeness in a timely, complete, and accurate manner. No completeness determination shall be required for a small wind energy system.

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

1. A wind energy system.

2. An expansion of an existing or previously-approved wind energy system.

(b) A political subdivision may not require a developer to obtain approval from the political subdivision under this chapter for any of the following:

1. A wind energy system placed in operation before the effective date of this chapter…[LRB inserts date].

2. A wind energy system for which construction began before the effective date of this chapter…[LRB inserts date].

3. A wind energy system approved by the political subdivision before the effective date of this chapter…[LRB inserts date].

4. A wind energy system proposed by a developer in an application filed before the effective date of the chapter…[LRB inserts date] with a political subdivision that has an established procedure for review of applications for wind energy systems, unless the developer files a new application after the effective date of the chapter.

(2) STANDARD FOR APPROVAL. A political subdivision ~~may not unreasonably deny an application for a wind energy system or impose unreasonable conditions~~ shall approve an application for a wind energy system if the system substantially complies with the requirements of this chapter.

(3) WRITTEN DECISION. (a) A political subdivision shall issue a written decision to grant or deny an application for a wind energy system within the time periods specified in s. 66.0401(3)(d)-(e), Stats. 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. An approval may be subject to the conditions in s. PSC 128.33(1) and shall not be subject to any other conditions or regulations except as specifically provided in this chapter.

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

2. The developer shall file 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 or operator of the wind energy system. A political subdivision may require a developer, owner or operator to provide timely notice of any change in the owner or operator of the large wind energy system.

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

(b) A political subdivision's fee or reimbursement requirement shall be based on the actual cost of the review of the wind energy system application, and may, for a large wind energy system, 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 set standardized application fees based on the size and complexity of a proposed wind energy system.

(c) A political subdivision may only charge a fee or require reimbursement if the political subdivision gives written notice to developer of its intent to do so within 60 days of the date the political subdivision receives a notice under s. PSC 128.10(1) and identifies an estimate of the amount of the fee and the relevant reimbursement requirements.

(d) The total fee or reimbursement permitted under this subsection for a wind energy system may not exceed 0.~~0~~1 percent of the estimated cost of ~~a~~ the~~small~~ wind energy system~~; 0.03 percent of the estimated cost of a large wind energy system with an installed nameplate capacity of 20 megawatts or less, and 0.05 percent of the estimated cost of a large wind energy system with an installed nameplate capacity of greater than 20 megawatts~~.

(e) A political subdivision may require a developer to submit up to 50 percent of the total fee or total estimated reimbursement under this subsection at the time the application is submitted, provided that the political subdivision must return any unused fee or reimbursement to the developer at the time of its final decision on the wind energy system application.

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

PSC 128.33 Political subdivision provisions. (1) PERMITTED PROVISIONS. A political subdivision may include any of the following as a regulation or as a condition for approval of an application to construct a wind energy system:

(a) Require information describing how the developer of a large wind energy system has incorporated ~~current~~ DNR ~~guidelines~~ requirements for potential impacts to natural resource features and any project-specific DNR ~~recommendations~~ requirements regarding natural resources not subject to specific DNR permits.

(b) Require a developer, owner or operator of a large wind energy system to cooperate with any ~~state-wide or regional~~required DNR study of the effects of wind energy systems on bat or migratory bird populations, including providing access to sites for post-construction bird and bat mortality studies.

(c) For a large wind energy system, may require a developer to include in a transportation plan ~~the proposed type and period of use of local roads,~~ a proposed process for mitigation of any damage to local roads related to construction ~~and operation~~ of the large wind energy system, and provision for a pre- and post-construction review by the political subdivision.

~~(d) For a large wind energy system, may require a developer to offer agreements that include annual monetary compensation to the owner of a nonparticipating residence if the residence is within one-half mile of a planned wind turbine site. If a political subdivision requires a developer to offer such an agreement, the amount of annual monetary compensation shall be calculated by multiplying the number of installed wind turbines in the wind energy system located within one-half mile of each~~

~~nonparticipating residence by a per wind turbine compensatory amount, with annual payments escalating annually. The total annual payment to any owner of a nonparticipating residence may not exceed the amount paid by the developer, owner or operator to any owner of a turbine host property receiving payment under a wind lease for one wind turbine. An agreement offered under this paragraph shall specify in writing whether the landowner's acceptance of payment establishes the landowner's property as a participating property.~~

~~(e) For a large wind energy system, may require a developer, owner or operator to provide the political subdivision with a list of the tax parcel numbers of tracts of residential real property less than 5 acres in size located within one mile of a wind turbine at the time the wind energy system is constructed. The political subdivision may use this list to track the sale prices of residential real properties of less than 5 acres in size within one mile of a wind turbine.~~

~~(f) Specify provisions regarding blasting to protect against groundwater contamination, including notification requirements, timing limitations, plan requirements, and whether blasting may occur within the political subdivision.~~

~~(g) May establish a procedure for assessing when wind energy system facilities are not maintained in good repair and operating condition. The procedure may include timelines, provide for payment of fees for conducting an assessment, and provide for notification to the public.~~

(~~h~~d) May require the developer, owner or operator of a large wind energy system to file an annual report with the political subdivision documenting the operation and maintenance of the wind energy system during the previous calendar year.

(~~i~~e) Establish reasonable requirements for the manner in which an ~~developer,~~ owner or operator of a large wind energy system may demonstrate proof of financial responsibility to ensure the availability

of funds sufficient to keep the wind energy system in good repair and operating condition and to comply with decommissioning requirements.

(2) PROHIBITED PROVISIONS. ~~A political subdivision may not include any of the following as a regulation or as a condition for approval of an application to construct a wind energy system:~~

~~(a) Require a developer, owner or operator to conduct a study of property value impacts.~~

~~(b) Except as provided in sub. (1)(d), require a developer, owner or operator to provide monetary compensation to landowners relating to property values.~~

~~(c) Impose a penalty on an owner or operator of a wind energy system if the owner or operator satisfies the requirements of this chapter regarding keeping the wind energy system in good operating condition and the requirements regarding decommissioning.~~

~~(d) Restrict wind turbine sites based on impacts to aerial spraying on participating properties.~~

~~(e) Establish structure lighting requirements for a wind energy system that conflict with standards established by the federal aviation administration.~~A political subdivision shall not place any condition or regulation on a wind energy system except as specifically provided in this chapter. Any condition or regulation on a wind energy system not specifically provided in this chapter shall be deemed more restrictive than this chapter in contravention of s. 66.0401(1m), Stats.

128.34 Record of decision. (1) RECORDKEEPING. A political subdivision shall keep a complete written record of its decision-making related to an application for a wind energy system. If a political subdivision denies an application, the political subdivision shall keep the record for at least seven years following the year in which it issues the decision. If a political subdivision approves an application, the political subdivision shall keep the record for at least seven 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 subsequent additions or amendments to the application.

(b) A representative copy of all notices issued under ss. PSC 128.10(1)(a), 128.18(5)(a) and 128.30(5).

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

(d) A record of any public 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 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 board 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 local ordinance cited in or applicable to the decision.

(3) POST-CONSTRUCTION FILING REQUIREMENT. Within 90 days of the date a large wind energy system commences operation, the developer, owner or operator 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 each wind turbine, geographic information system information showing the location of each wind turbine and current information regarding the developer, owner and operator of the large wind energy system.

PSC 128.35 Modifications to an approved wind energy system. (1) MATERIAL CHANGE. (a) A developer 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. For purposes of this paragraph, the term "material change" shall not include a change in turbine model, a change in the collection system or access roads, or a change in turbine location within 500 feet of the original turbine location, as long as such change complies with the setback, sound, shadow flicker, signal interference and stray voltage requirements of this chapter.

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

~~**PSC 128.36 Monitoring and mitigation. (1)** MONITORING COMMITTEE. A political subdivision may establish a committee to monitor complaints and to monitor compliance by the developer, owner or operator with any conditions to an approved large wind energy system or monitor compliance with any local agreements. If a monitoring committee is established, the political subdivision shall include on the monitoring committee a member who is a local employee of a developer, owner or operator of a wind energy system and at least one nonparticipating landowner residing within one mile of the large wind energy system.~~

~~**(2)** DUTIES. A monitoring committee may do all of the following:~~

~~(a) Maintain a record of all complaints brought to the monitoring committee.~~

~~(b) Require the developer, owner or operator to investigate, at the developer, owner or operator's expense, any complaint forwarded by the committee.~~

~~(c) Recommend a reasonable resolution to a complaint based upon the committee's findings.~~

~~**(3)** COMPLAINT RESOLUTION. A developer, owner or operator shall use reasonable efforts to resolve complaints. A developer, owner or operator shall make a good faith effort to resolve complaints within 45 days of receiving a complaint. A developer, owner or operator shall notify the political subdivision of complaints that have not been resolved within 45 days of the date the developer, owner or operator received the original complaint. A political subdivision shall establish a process for determining whether the developer, owner or operator has met the requirements of this chapter regarding complaint resolution.~~

Subchapter IV

Commission Procedure

~~**PSC 128.40 Detailed application 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(1)(j). The commission may revise these requirements as necessary. The commission shall make the filing requirements available to the public on the commission's website.~~

PSC 128.4~~1~~0 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 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 25 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) A developer, owner or operator 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 a developer, owner or operator submitting a petition under sub. (2)(intro.) shall serve a copy of the petition on the developer, owner or operator, 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 presumed to be a Type III action under s. PSC 4.10(3).

(7) STANDARD OF REVIEW. The commission ~~may~~ shall reverse or modify a political subdivision's decision or enforcement action if the decision or enforcement action does not comply with this chapter or is otherwise unreasonable. The political subdivision's decision shall be superseded by the commission's decision and the commission may order an appropriate remedy. ~~**(8)** REMAND TO POLITICAL SUBDIVISION. (a) Except as provided in par. (c), if the commission remands any issue to the political subdivision, the political subdivision's review on remand shall be completed no later than 90 days after the day on which the commission issues its decision.~~

~~(b) Under this paragraph, a political subdivision may extend the 90-day period if the political subdivision authorizes the extension in writing. Any combination of the following extensions may be granted, except that the total amount of time for all extensions granted may not exceed 90 days:~~

~~1. An extension of up to 45 days if the political subdivision needs additional information to determine issues on remand.~~

~~2. An extension of up to 90 days if a developer makes a material modification to the application after remand.~~

~~3. An extension of up to 90 days for other good cause.~~

~~(c) If the commission remands a decision or enforcement action and directs the political subdivision to issue a decision consistent with the commission's decision, the political subdivision shall enter the decision within 20 business days.~~