

## 2011 DRAFTING REQUEST

### Bill

Received: **07/07/2011**

Received By: **mkunkel**

Wanted: **As time permits**

Companion to LRB:

For: **Frank Lasee (608) 266-3512**

By/Representing: **Rob Kovach**

May Contact:

Drafter: **mkunkel**

Subject: **Public Util. - misc.**

Addl. Drafters:

Extra Copies: **MES, EVM, TKK**

Submit via email: **YES**

Requester's email: **Sen.Lasee@legis.wisconsin.gov**

Carbon copy (CC:) to: **RKovach@legis.wisconsin.gov**

---

### Pre Topic:

No specific pre topic given

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### Topic:

Setback distances for wind energy systems

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### Instructions:

See attached

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### Drafting History:

<u>Vers.</u>	<u>Drafted</u>	<u>Reviewed</u>	<u>Typed</u>	<u>Proofed</u>	<u>Submitted</u>	<u>Jacketed</u>	<u>Required</u>
/?				_____			State
/P1	mkunkel 07/22/2011	jdyer 07/26/2011	rschluet 07/26/2011	_____	lparisi 07/26/2011		State
/1	mkunkel 08/18/2011	wjackson 08/18/2011	rschluet 08/18/2011	_____	lparisi 08/18/2011		State
/2	mkunkel 08/24/2011	jdyer 08/24/2011	jfrantze 08/24/2011	_____	lparisi 08/24/2011		State

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/3	mkunkel 08/25/2011 pgrant 10/07/2011	wjackson 08/25/2011 jdyer 10/07/2011	rschluet 08/26/2011	_____ _____ _____	mbarman 08/26/2011		State
/4			rschluet 10/07/2011	_____ _____	lparisi 10/07/2011	sbasford 10/24/2011	

FE Sent For:

*At 10/24/2011*

<END>

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*Handwritten notes:*  
A large handwritten signature or initials are present below the table.  
Below that, there is a handwritten note: "Kim 8/24" with a checkmark and "9/3" below it.

Vers.      Drafted      Reviewed      Typed      Proofed      Submitted      Jacketed      Required

13 WLJ 8/25

FE Sent For:

<END>

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FE Sent For:

*Jo 8/24* *RS 8/24*

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1 WLJ 8/18  
8/18/11

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/?	mkunkel	PI 7/26 JLD		_____	_____		

FE Sent For:

<END>

# Bill Request Form

**Legislative Reference Bureau**  
One East Main Street, Suite 200  
Legal Section 266-3561

You may use this form or talk directly with the LRB attorney who will draft the bill.

Date 6-24-11

Legislator, agency, or other person requesting this draft SENATOR FRANK LASEE

Person submitting request (name and phone number) ROBERT KOVACH 608-~~266~~-3512

Persons to contact for questions about this draft (names and phone numbers) ROBERT KOVACH  
608-266-3512

Describe the problem, including any helpful examples. How do you want to solve the problem?

SENATOR WOULD LIKE A BILL THAT MANDATES WIND  
SITING SETBACKS OF 1 MILE UNTIL AN EPIDEMIO-  
LOGICAL STUDY HAS BEEN COMPLETED REGARDING HEALTH  
& SAFETY OF PEOPLE & ANIMALS WITHIN ONE MILE ~~THE~~ MILE  
STUDY OF LOW FREQUENCY & ULTRA LOW FREQUENCY SOUND, INFRASOUND,  
& THE EFFECT OF "SHADOW FLICKER" SHOULD BE PART OF THE STUDY  
AS WELL AS THE POINTS MENTIONED IN THE ATTACHMENT.

Please attach a copy of any correspondence or other material that may help us. If you know of any statute sections that might be affected, list them or provide a marked-up copy.

SEE ATTACHMENT;

You may attach a marked-up copy of any LRB draft or provide its number (e.g., 2010 LRB-2345/1 or 2009 AB-67).

Requests are confidential unless stated otherwise. May we tell others that we are working on this for you? YES  NO

If yes:

Anyone who asks?  
Any legislator?

YES  NO   
YES  NO

Only the following persons \_\_\_\_\_

Do you consider this request urgent? YES  NO

Should we give this request priority over any pending request of this legislator, agency, or person?

YES  NO

June 3, 2011

To: Senator Frank Lasee

Suggested amendment to SB 98 regarding siting of wind energy systems-June 2, 2011

Proposed by Towns of Glenmore, Morrison, and Wrightstown in Brown County, WI.

Presented by Glen R. Schwalbach, P.E. on the towns' behalf.

*Rob  
let's draft  
to require  
a health  
study.*

*for those  
that live  
within a  
mile of  
windmills*

Add in Section 6, "Distance requirements may be modified when a Level 1 epidemiological study has been conducted in at least one wind energy system of 100 megawatts or more located in the State of Wisconsin. Any epidemiological study may be financed by the wind energy industry or other interested parties. Any such study shall be designed and conducted under the direction of the Wisconsin State Board of Health and the appropriate health research experts from the University of Wisconsin for the purpose of determining what distances are justified to protect the health and safety of humans and animals who may reside in the future near the property line of the property on which the wind turbine tower is located and may occupy the property on which the wind turbine tower is located. Any study shall measure the health impacts by including various orientations of people and animals to various layouts of the wind turbines and various wind directions and speeds. The study shall include and evaluate the impact of low frequency sound and infrasound. The study shall be considered whether it is significant and robust enough by the Joint Committee for the Review of Administrative Rules to direct the Public Service Commission of Wisconsin to make a change in the distance requirements of the wind siting rules."

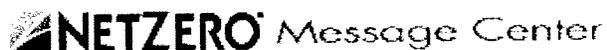
*DHS  
still  
canceled  
UU*

Also, in Section 6, consider using "1.5 times" instead of "1.1 times". Empirical evidence of actual incidents of the throwing of blade debris or ice has often been as far as 1.5 times the maximum blade tip height.

Since the "1.1 or 1.5 times" distance applies to buildings on the property on which the wind turbine tower is located, is much less than the "1/2 mile setback" and does not protect from any negative sound effects on health, the bill should require in Section 12 that the brochure prepared by the Public Service Commission include the fact that an epidemiological study has not been conducted to establish safe distances to mitigate sound impacts on health. That caution would be modified in the brochure after a study has been completed in accordance with the findings of the study. To amend the bill in this regard, a sentence could be added to the end of Section 12 as follows: "Until an epidemiological study has been conducted and meets the requirements of Section 6, the brochure shall state that no Level 1 epidemiological study has been conducted to determine the safe distance from humans or animals to eliminate various negative impacts on health."

End

*epidemiological study  
prospective  
vs  
retrospective?*

The logo for NETZERO Message Center, featuring the word "NETZERO" in a bold, sans-serif font with a stylized "Z" that has a diagonal line through it, followed by "Message Center" in a smaller, regular sans-serif font.

**From:** Glen Schwalbach <glenschwalbach@netzero.com>

**To:** Sen.Lasee@legis.wisconsin.gov

**Cc:** jon.kruse@legis.wisconsin.gov

**Sent:** Fri, Jun 03, 2011 02:32 AM

**Subject:** Suggested amendment to SB 98

Wind SWEFT propose... (37KB)

---

Senator Lasee, here's a proposed amendment to your wind siting bill.

As I discussed with Jonathan, including a provision for changing the distance (setback) requirement as soon as an acceptable level 1 epidemiological study is conducted should be supported by everyone. Without such studies, safe distances are unknown and unknowable. So, any distance requirements must error on the safe side. The fact is the "1/2 mile" may not be adequate especially in the cases where low frequency sounds or infrasounds exist. The wind industry has been irresponsible in that they continue to proceed with evidence of serious health impacts and no attempt to do scientific, controlled studies of humans and animals. No epidemiological study has been done and reported in the world. An independent group has just started one in Maine but we don't know when or if it will be completed.

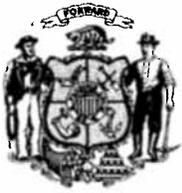
Appreciate your time.  
Glen R. Schwalbach, P.E., NSPE Fellow  
PROBITY Consulting, LLC  
1090 Moonriver Dr., De Pere, WI 54115  
Cell: 920-680-2436, Office/Home: 920-532-6330

---

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O-NOTE

Jld

**PRELIMINARY DRAFT - NOT READY FOR INTRODUCTION**

Soon

in 7-22

X

Gen

1 AN ACT ...; relating to: setback distances for certain wind energy systems and  
2 requiring a report on the health impacts of such systems.

***Analysis by the Legislative Reference Bureau***

\* Under current law, the Public Service Commission (PSC), with the advice of the wind siting council, must promulgate rules specifying the restrictions that a city, village, town, or county may impose on the installation or use of a "wind energy system," which is defined as equipment and associated facilities that convert and then store or transfer wind energy into usable forms of energy. The restrictions must satisfy certain conditions, including preserving or protecting the public health or safety and not significantly increasing the cost of a wind energy system or significantly decreasing its efficiency. In addition, the subject matter of the rules must include setback requirements and decommissioning, and may include other matters. Current law prohibits a city, village, town, or county from placing a restriction on the installation or use of a wind energy system that is more restrictive than the PSC's rules. Current law also requires the wind siting council to submit a report to the legislature every five years that describes the following: 1) peer-reviewed scientific research regarding the health impacts of wind energy systems; and 2) state and national regulatory developments regarding the siting of wind energy systems. The report must also include any recommendations for legislation.\*

The bill eliminates the requirement for the PSC to promulgate rules regarding setback requirements, and requires instead that the owners of certain wind energy systems comply with distance requirements specified in the bill. The bill's

requirements apply to the owner of a "large wind energy system," which the bill defines as a wind energy system that has a total installed nameplate capacity of more than 300 kilowatts and that consists of individual wind turbines that have an installed nameplate capacity of more than 100 kilowatts. The bill defines the owner of a large wind energy system as any of the following: 1) a person with a direct ownership interest in such a system, regardless of whether the person was involved in acquiring the necessary rights, permits, and approvals or otherwise planning for the construction and operation of the system; or 2) a person acting as a developer of a large wind energy system by acquiring the necessary rights, permits, and approvals for or by planning for the construction and operation of the system, regardless of whether the person will own or operate the system. The foregoing definition is similar to a definition in rules promulgated by the PSC.

Under the bill, the owner of a large wind energy system must design and construct the system so that the straight line distance from the vertical center line of any wind turbine tower of the system to the nearest point on the property line of the property on which the wind turbine tower is located is at least one mile. However, the bill allows a lesser distance if there is a written agreement between the owner of the large wind energy system and the owners of all property within one mile of the property on which the system is located.

The bill also requires the department of health services (department) to conduct an epidemiological study regarding the health impacts of large wind energy systems in this state on people and animals within one mile of such systems. The study must include the health impacts of low frequency sound and infrasound resulting from such systems. Also, the study must consider any differences in health impacts on people and animals in different proximities to and directions from such systems, as well as any differences associated with different wind speeds and directions. The bill allows the department to accept contributions from interested stakeholders for funding the study. In conducting the study, the department must consult with University of Wisconsin System personnel that, as determined by the department, have the requisite expertise for such a study. The bill requires the department to submit a report to the legislature describing the study's findings. The report must also include legislative proposals for setback requirements that the department recommends based on the findings.

For further information see the *state* fiscal estimate, which will be printed as an appendix to this bill.

***The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:***

- 1           **SECTION 1.** 196.378 (4g) (a) 1. of the statutes is renumbered 196.378 (4g) (a) 1r.
- 2           **SECTION 2.** 196.378 (4g) (a) 1g. of the statutes is created to read:

1           196.378 (4g) (a) 1g. "Affected owner"<sup>✓</sup> means the owner of property located  
2 within one mile<sup>✓</sup> of property on which a wind energy system is installed or proposed  
3 to be installed.

4           **SECTION 3.** 196.378 (4g) (a) 2g. of the statutes<sup>✗</sup> is created to read:

5           196.378 (4g) (a) 2g. "Large wind energy system"<sup>✓</sup> means a wind energy system  
6 that has a total installed nameplate capacity of more than 300<sup>✓</sup> kilowatts and that  
7 consists of individual wind turbines that have an installed nameplate capacity of  
8 more than 100<sup>✓</sup> kilowatts.

9           **SECTION 4.** 196.378 (4g) (a) 2r. of the statutes<sup>✗</sup> is created to read:

10          196.378 (4g) (a) 2r. "Large wind energy system owner"<sup>✓</sup> means any of the  
11 following:

12          a. A person with a direct ownership interest in a large wind energy system,  
13 regardless of whether the person was involved in acquiring the necessary rights,  
14 permits, and approvals or otherwise planning for the construction and operation of  
15 a large wind energy system.<sup>✓</sup>

16          b. At the time a large wind energy system is being developed, a person who is  
17 acting as a large wind energy system developer<sup>✓</sup> by acquiring the necessary rights,  
18 permits, and approvals<sup>✓</sup> for or by planning for the construction and operation of a  
19 large wind energy system, regardless of whether the person will own or operate the  
20 large wind energy system.

21          **SECTION 5.** 196.378 (4g) (am)<sup>✗</sup> of the statutes is created to read:

22          196.378 (4g) (am) A large wind energy system<sup>✓</sup> owner shall design and construct  
23 a large wind energy system so that the straight line distance from the vertical center  
24 line of any wind turbine tower of the system to the nearest point on the property line  
25 of the property on which the wind turbine tower is located is at least<sup>✓</sup> one mile, unless

1 the large wind energy system owner agrees in writing with all affected owners to a  
2 distance that is less than <sup>✓</sup>one mile.

3 **SECTION 6.** 196.378 (4g) (b) <sup>✗</sup>of the statutes is amended to read:

4 196.378 (4g) (b) The commission shall, with the advice of the wind siting  
5 council, promulgate rules that specify the restrictions a political subdivision may  
6 impose on the installation or use of a wind energy system consistent with the  
7 conditions specified in s. 66.0401 (1m) (a) to (c). The <sup>✓</sup>subject matter of these rules  
8 restrictions <sup>✓</sup>shall ~~include setback requirements that~~ provide reasonable protection  
9 from any health effects, including health effects from noise and shadow flicker,  
10 associated with wind energy systems. The subject matter of these ~~these~~ <sup>✓</sup>the rules shall also  
11 include decommissioning and may include visual appearance, lighting, electrical  
12 connections to the power grid, ~~setback distances,~~ <sup>✓</sup>maximum audible sound levels,  
13 shadow flicker, proper means of measuring noise, interference with radio, telephone,  
14 or television signals, or other matters. A political subdivision may not place a  
15 restriction on the installation or use of a wind energy system that is more restrictive  
16 than these rules.

17 History: 1999 a. 9; 2001 a. 30; 2005 a. 141; 2009 a. 40, 406. <sup>✗</sup>

**SECTION 7.** 196.378 (4g) (f) <sup>✗</sup>of the statutes is created to read:

18 196.378 (4g) (f) 1. In this paragraph, “department” means the department of  
19 health services. <sup>✓</sup>

20 2. The department shall conduct an epidemiological study regarding the health  
21 impacts of large wind energy systems in this state on people and animals within <sup>✓</sup>one  
22 mile of large wind energy systems, including the health impacts of low frequency  
23 sound and infrasound resulting from such systems. The study shall consider the  
24 differences in health impacts, if any, on people and animals in different proximities

1 to and directions from such systems, as well as any differences associated with  
 2 different wind speeds and directions. The department shall submit a report to the  
 3 appropriate standing committees of the legislature under s. 13.172 (3) that describes  
 4 the study's findings and includes legislative proposals for setback requirements that  
 5 the department recommends based on the findings. The department may accept  
 6 contributions from interested stakeholders for funding the study required under this  
 7 subdivision.

8 3. In conducting the study required under subd. 2, the department shall consult  
 9 with University of Wisconsin System personnel that, as determined by the  
 10 department, have the requisite expertise for such a study.

11 **SECTION 8. Initial applicability.**

12 (1) The treatment of section 196.378 (4g) (am) of the statutes first applies to  
 13 large wind energy systems for which construction commences on the effective date  
 14 of this subsection.

15 **SECTION 9. Effective date.**

16 (1) This act takes effect on the first day of the 4th month beginning after  
 17 publication.

18 (END)

D-note  
↓

**DRAFTER'S NOTE**  
**FROM THE**  
**LEGISLATIVE REFERENCE BUREAU**

LRB-2355/P1dn

MDK:.....

date

JK

Sen. Lasee: ✓

Please note the following about this preliminary draft:

1. The draft uses the same definitions of "affected owner" and "large wind energy system" that are in 2011 SB-98. Note that 2011 SB-98 and this draft define "large wind energy system" as a system with total installed capacity of more than ✓300 kilowatts, with individual wind turbines with capacities of more than 100 ✓kilowatts. However, the correspondence you submitted refers to wind energy systems of 100 megawatts or more. Is the draft's definition okay, or do you want to refer instead to systems that are 100 ✓megawatts or more?
- \* 2. As in 2011 SB-98, the draft allow<sup>s</sup> affected owners to agree in writing to a setback distance that is less than one mile. Is that okay?
- \* 3. As in 2011 SB-98, the draft's requirements will first apply to large wind energy systems for which construction begins on or after the effective date of the draft, which is approximately <sup>2-3</sup>3 months after the draft is published as an act. You may want to consider revising this initial applicability provision so that the draft first applies to large wind energy systems for which construction contracts are entered into on or after the effective date. Under that approach, the draft would not apply if contracts are entered into before the effective date but construction does not begin until after the effective date. Please let me know your preference on this issue. ✓
- \* 4. Other than to allow the Department of Health Service<sup>s</sup> to accept contributions for the epidemiological study from stakeholders, the draft does not provide funding for the study. Do you want to revise the draft to appropriate money for the study? Also, the UW may incur expenses in consulting with the department. Do you want provide funding for the UW's involvement in the study? ✓
5. Regarding the epidemiological study, the correspondence you submitted refers to a "level 1" study. I did not refer to "level 1" because I could not determine its meaning. If you clarify what you mean, I can revise the draft accordingly. ✓
6. The correspondence you submitted mentions submitting the report regarding the study to the Joint Committee for Review of Administrative Rules (JCRAR). ✓ However, JCRAR's duties are limiting to reviewing rules, and this draft establishes setback

distances by statute, not rule. Therefore, instead of requiring submission of the report to JCRAR, I required submission to the appropriate standing committees of the legislature. After the report is received, a legislator would have to request a bill that incorporates the legislative proposal included in the report.

7. Do you want to include a deadline for completion of the epidemiological study? Depending on how long such studies take, a statutory deadline may or may not be advisable, so you may want to consider whether such a deadline is necessary.

Mark D. Kunkel  
Senior Legislative Attorney  
Phone: (608) 266-0131  
E-mail: [mark.kunkel@legis.wisconsin.gov](mailto:mark.kunkel@legis.wisconsin.gov)

**DRAFTER'S NOTE**  
**FROM THE**  
**LEGISLATIVE REFERENCE BUREAU**

LRB-2355/P1dn  
MDK:jld:rs

July 26, 2011

Sen. Lasee:

Please note the following about this preliminary draft:

1. The draft uses the same definitions of “affected owner” and “large wind energy system” that are in 2011 SB-98. Note that 2011 SB-98 and this draft define “large wind energy system” as a system with total installed capacity of more than 300 kilowatts, with individual wind turbines with capacities of more than 100 kilowatts. However, the correspondence you submitted refers to wind energy systems of 100 megawatts or more. Is the draft’s definition okay, or do you want to refer instead to systems that are 100 megawatts or more?
2. As in 2011 SB-98, the draft allows affected owners to agree in writing to a setback distance that is less than one mile. Is that okay?
3. As in 2011 SB-98, the draft’s requirements will first apply to large wind energy systems for which construction begins on or after the effective date of the draft, which is approximately three months after the draft is published as an act. You may want to consider revising this initial applicability provision so that the draft first applies to large wind energy systems for which construction contracts are entered into on or after the effective date. Under that approach, the draft would not apply if contracts are entered into before the effective date but construction does not begin until after the effective date. Please let me know your preference on this issue.
4. Other than to allow the Department of Health Services to accept contributions for the epidemiological study from stakeholders, the draft does not provide funding for the study. Do you want to revise the draft to appropriate money for the study? Also, the UW may incur expenses in consulting with the department. Do you want provide funding for the UW’s involvement in the study?
5. Regarding the epidemiological study, the correspondence you submitted refers to a “level 1” study. I did not refer to “level 1” because I could not determine its meaning. If you clarify what you mean, I can revise the draft accordingly.
6. The correspondence you submitted mentions submitting the report regarding the study to the Joint Committee for Review of Administrative Rules (JCRAR). However, JCRAR’s duties are limiting to reviewing rules, and this draft establishes setback

distances by statute, not rule. Therefore, instead of requiring submission of the report to JCRAR, I required submission to the appropriate standing committees of the legislature. After the report is received, a legislator would have to request a bill that incorporates the legislative proposal included in the report.

7. Do you want to include a deadline for completion of the epidemiological study? Depending on how long such studies take, a statutory deadline may or may not be advisable, so you may want to consider whether such a deadline is necessary.

Mark D. Kunkel  
Senior Legislative Attorney  
Phone: (608) 266-0131  
E-mail: [mark.kunkel@legis.wisconsin.gov](mailto:mark.kunkel@legis.wisconsin.gov)

**Kunkel, Mark**

**From:** Kunkel, Mark  
**Sent:** Wednesday, August 10, 2011 1:58 PM  
**To:** Kunkel, Mark  
**Subject:** FW: LRB-2355 Link for Level 1 Epidemiological Study  
[http://en.wikipedia.org/wiki/Evidence-based\\_medicine](http://en.wikipedia.org/wiki/Evidence-based_medicine)

Rb  
608-445-6816

US Preventive Services Task Force

Systems to stratify evidence by quality have been developed, such as this one by the U.S. Preventive Services Task Force for ranking evidence about the effectiveness of treatments or screening<sup>[9]</sup>:

- Level I: Evidence obtained from at least one properly designed randomized controlled trial.
- Level II-1: Evidence obtained from well-designed controlled trials without randomization.
- Level II-2: Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group.
- Level II-3: Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled trials might also be regarded as this type of evidence.
- Level III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.

**From:** Kovach, Robert  
**Sent:** Tuesday, August 09, 2011 2:14 PM  
**To:** Kunkel, Mark  
**Subject:** LRB-2355 Link for Level 1 Epidemiological Study

Hi Mark,

I found a link that describes the "Level 1" Study. [http://en.wikipedia.org/wiki/Evidence-based\\_medicine](http://en.wikipedia.org/wiki/Evidence-based_medicine)

As far as your other questions on your draft, all of the assumptions were correct and the draft is correct.

For question 4. The senator believes that the studies should be performed by the wind industry or parties interested in the wind project.

For question 7. No deadline is needed.

Rob Kovach  
Chief of Staff  
Office of State Senator Frank Lasee  
608-266-3512

require OHS  
to submit a report  
on stretch that it  
receives from private  
entities

**Kunkel, Mark**

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**From:** Kovach, Robert  
**Sent:** Tuesday, August 09, 2011 2:14 PM  
**To:** Kunkel, Mark  
**Subject:** LRB-2355 Link for Level 1 Epidemiological Study

Hi Mark,

I found a link that describes the "Level 1" Study. [http://en.wikipedia.org/wiki/Evidence-based\\_medicine](http://en.wikipedia.org/wiki/Evidence-based_medicine)

As far as your other questions on your draft, all of the assumptions were correct and the draft is correct.

For question 4. The senator believes that the studies should be performed by the wind industry or parties interested in the wind project.

For question 7. No deadline is needed. ✓

Rob Kovach  
Chief of Staff  
Office of State Senator Frank Lasee  
608-266-3512

8/10/2011

## Kunkel, Mark

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**From:** Dodge, Tamara  
**Sent:** Thursday, August 18, 2011 9:46 AM  
**To:** Kunkel, Mark  
**Subject:** RE: DHS study

Here are my thoughts to substitute for "has sufficient probative value": "demonstrates adequate (or proper) scientific methodology"; "demonstrates a sufficient scientific basis on which to make inferences"; "has sufficient statistical power"; or "has sufficient inferential value".

The best word for what you can get from an epidemiological study is "inference." Some form of that word or a synonym for it can substitute for "probative." DHS needs to recommend setbacks based on the inferences it draws from the study, so I think that word would be appropriate.

Hope this helps.  
Tami

### Tamara J. Dodge

Attorney  
Wisconsin Legislative Reference Bureau  
P.O. Box 2037  
Madison, WI 53701-2037  
(608) 267 - 7380  
tamara.dodge@legis.wisconsin.gov

---

**From:** Kunkel, Mark  
**Sent:** Thursday, August 18, 2011 9:11 AM  
**To:** Dodge, Tamara  
**Subject:** DHS study

I need your help on language that requires DHS to determine whether an epidemiological study is "good enough." DHS won't do the study, but will encourage private parties to submit studies that DHS will summarize and submit to the legislature with DHS's recommendations for setback distances that will protect public health, etc. (The rationale is the state won't have to pay for the study, but can rely on a study that a private group, even an industry group, has done.)

Here's my first sentence:

The department [DHS] shall encourage interested persons to submit an epidemiological study that evaluates the health impacts of large wind energy systems [which is defined in the bill as a wind turbine system of a certain size] in this state on people and animals within one mile of such systems, including the health impacts of low frequency sound and infrasound resulting from such systems, and that evaluates the differences in health impacts, if any, on people and animals in different proximities to and directions from such systems, as well as any differences associated with different wind speeds and directions.

The above is my best effort to include language about the study that a constituent wants. (I didn't make it up whole cloth!)

I need a second sentence that goes something like this:

If such a study is submitted to the department, and the department determines that the study has sufficient probative value, the department shall submit a report to the legislature describing the study's findings and recommending legislative proposals for setback requirements that are based on the findings.

Is "has sufficient probative value" okay or can you think of something else? I found many uses of the term "reasonable probative value" in the statutes, so maybe "reasonable" is better than "sufficient," I don't know. What I'm trying to accomplish is let DHS decide whether a study is good enough for a report to the legislature. I don't want to require DHS to accept any study that is submitted, but to give DHS some discretion before the duty to submit a report is triggered.

## Kunkel, Mark

---

**From:** Kunkel, Mark  
**Sent:** Thursday, August 18, 2011 9:51 AM  
**To:** Dodge, Tamara  
**Subject:** RE: DHS study

Okay. I think I'll go with that, and if, further on down the road, someone wants to tighten the language, I'll suggest "sufficient inferential value." But for now, I'll keep simple with scientifically sound.

---

**From:** Dodge, Tamara  
**Sent:** Thursday, August 18, 2011 9:47 AM  
**To:** Kunkel, Mark  
**Subject:** RE: DHS study

I think that works.

### Tamara J. Dodge

Attorney  
Wisconsin Legislative Reference Bureau  
P.O. Box 2037  
Madison, WI 53701-2037  
(608) 267 - 7380  
tamara.dodge@legis.wisconsin.gov

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**From:** Kunkel, Mark  
**Sent:** Thursday, August 18, 2011 9:45 AM  
**To:** Dodge, Tamara  
**Subject:** RE: DHS study

How about "scientifically sound"?

If such a study is submitted to the department, and the department determines that the study is scientifically sound, the department shall submit a report to the legislature describing the study's findings and recommending legislative proposals for setback requirements that are based on the findings.

That term isn't found in the statutes, but DNR has some rules referring to sound science, sound scientific judgment, sound scientific practices, etc.

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**From:** Kunkel, Mark  
**Sent:** Thursday, August 18, 2011 9:11 AM  
**To:** Dodge, Tamara  
**Subject:** DHS study

I need your help on language that requires DHS to determine whether an epidemiological study is "good enough." DHS won't do the study, but will encourage private parties to submit studies that DHS will summarize and submit to the legislature with DHS's recommendations for setback distances that will protect public health, etc. (The rationale is the state won't have to pay for the study, but can rely on a study that a private group, even an industry group, has done.)

Here's my first sentence:

The department [DHS] shall encourage interested persons to submit an epidemiological study that evaluates the health impacts of large wind energy systems [which is defined in the bill as a wind turbine system of a certain size] in this state on people and animals within one mile of such systems, including the health impacts of low frequency sound and infrasound resulting from such systems, and that evaluates the differences in health impacts, if any, on people and animals in different proximities to and directions from such systems, as well as any differences associated with different wind speeds and directions.

The above is my best effort to include language about the study that a constituent wants. (I didn't make it up whole cloth!)

I need a second sentence that goes something like this:

If such a study is submitted to the department, and the department determines that the study has sufficient probative value, the department shall submit a report to the legislature describing the study's findings and recommending legislative proposals for setback requirements that are based on the findings.

Is "has sufficient probative value" okay or can you think of something else? I found many uses of the term "reasonable probative value" in the statutes, so maybe "reasonable" is better than "sufficient," I don't know. What I'm trying to accomplish is let DHS decide whether a study is good enough for a report to the legislature. I don't want to require DHS to accept any study that is submitted, but to give DHS some discretion before the duty to submit a report is triggered.



State of Wisconsin  
2011 - 2012 LEGISLATURE



LRB-2355/P1  
MDK:jld:rs

*NOTE*

*1*  
*TWLj*

**PRELIMINARY DRAFT - NOT READY FOR INTRODUCTION**

*Today*

*RM*  
*has*  
*been*  
*pen*

*Regen*

1 **AN ACT** *to renumber* 196.378 (4g) (a) 1.; *to amend* 196.378 (4g) (b); and *to create*  
2 196.378 (4g) (a) 1g., 196.378 (4g) (a) 2g., 196.378 (4g) (a) 2r., 196.378 (4g) (am)  
3 and 196.378 (4g) (f) of the statutes; **relating to:** setback distances for certain  
4 wind energy systems and requiring a report on the health impacts of such  
5 systems.

***Analysis by the Legislative Reference Bureau***

Under current law, the Public Service Commission (PSC), with the advice of the Wind Siting Council, must promulgate rules specifying the restrictions that a city, village, town, or county may impose on the installation or use of a "wind energy system," which is defined as equipment and associated facilities that convert and then store or transfer wind energy into usable forms of energy. The restrictions must satisfy certain conditions, including preserving or protecting the public health or safety and not significantly increasing the cost of a wind energy system or significantly decreasing its efficiency. In addition, the subject matter of the rules must include setback requirements and decommissioning, and may include other matters. Current law prohibits a city, village, town, or county from placing a restriction on the installation or use of a wind energy system that is more restrictive than the PSC's rules. Current law also requires the Wind Siting Council to submit a report to the legislature every five years that describes the following: 1) peer-reviewed scientific research regarding the health impacts of wind energy systems; and 2) state and national regulatory developments regarding the siting of

wind energy systems. The report must also include any recommendations for legislation.

The bill eliminates the requirement for the PSC to promulgate rules regarding setback requirements, and requires instead that the owners of certain wind energy systems comply with distance requirements specified in the bill. The bill's requirements apply to the owner of a "large wind energy system," which the bill defines as a wind energy system that has a total installed nameplate capacity of more than 300 kilowatts and that consists of individual wind turbines that have an installed nameplate capacity of more than 100 kilowatts. The bill defines the owner of a large wind energy system as any of the following: 1) a person with a direct ownership interest in such a system, regardless of whether the person was involved in acquiring the necessary rights, permits, and approvals or otherwise planning for the construction and operation of the system; or 2) a person acting as a developer of a large wind energy system by acquiring the necessary rights, permits, and approvals for or by planning for the construction and operation of the system, regardless of whether the person will own or operate the system. The foregoing definition is similar to a definition in rules promulgated by the PSC.

Under the bill, the owner of a large wind energy system must design and construct the system so that the straight line distance from the vertical center line of any wind turbine tower of the system to the nearest point on the property line of the property on which the wind turbine tower is located is at least one mile. However, the bill allows a lesser distance if there is a written agreement between the owner of the large wind energy system and the owners of all property within one mile of the property on which the system is located.

The bill also requires the Department of Health Services (department) to ~~conduct~~ an epidemiological study regarding the health impacts of large wind energy systems in this state on people and animals within one mile of such systems. The study must include the health impacts of low frequency sound and infrasound resulting from such systems. Also, the study must consider any differences in health impacts on people and animals in different proximities to and directions from such systems, as well as any differences associated with different wind speeds and directions. ~~The bill allows the department to accept contributions from interested stakeholders for funding the study. In conducting the study, the department must consult with University of Wisconsin System personnel that, as determined by the department, have the requisite expertise for such a study.~~ ~~the bill requires the department to~~ submit a report to the legislature describing the study's findings. The report must also include legislative proposals for setback requirements ~~that~~ the department recommends based on the findings. **INSERT 2B**

For further information see the *state* fiscal estimate, which will be printed as an appendix to this bill.

**INSERT 2A**  
**(No)**

*The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:*

encourage interested persons to submit

1           **SECTION 1.** 196.378 (4g) (a) 1. of the statutes is renumbered 196.378 (4g) (a) 1r.

2           **SECTION 2.** 196.378 (4g) (a) 1g. of the statutes is created to read:

3           196.378 **(4g)** (a) 1g. “Affected owner” means the owner of property located  
4 within one mile of property on which a wind energy system is installed or proposed  
5 to be installed.

6           **SECTION 3.** 196.378 (4g) (a) 2g. of the statutes is created to read:

7           196.378 **(4g)** (a) 2g. “Large wind energy system” means a wind energy system  
8 that has a total installed nameplate capacity of more than 300 kilowatts and that  
9 consists of individual wind turbines that have an installed nameplate capacity of  
10 more than 100 kilowatts.

11          **SECTION 4.** 196.378 (4g) (a) 2r. of the statutes is created to read:

12          196.378 **(4g)** (a) 2r. “Large wind energy system owner” means any of the  
13 following:

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

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

23          **SECTION 5.** 196.378 (4g) (am) of the statutes is created to read:

24          196.378 **(4g)** (am) A large wind energy system owner shall design and construct  
25 a large wind energy system so that the straight line distance from the vertical center

1 line of any wind turbine tower of the system to the nearest point on the property line  
2 of the property on which the wind turbine tower is located is at least one mile, unless  
3 the large wind energy system owner agrees in writing with all affected owners to a  
4 distance that is less than one mile.

5 SECTION 6. 196.378 (4g) (b) of the statutes is amended to read:

6 196.378 (4g) (b) The commission shall, with the advice of the wind siting  
7 council, promulgate rules that specify the restrictions a political subdivision may  
8 impose on the installation or use of a wind energy system consistent with the  
9 conditions specified in s. 66.0401 (1m) (a) to (c). The subject matter of these rules  
10 restrictions shall ~~include setback requirements that~~ provide reasonable protection  
11 from any health effects, including health effects from noise and shadow flicker,  
12 associated with wind energy systems. The subject matter of ~~these~~ the rules shall also  
13 include decommissioning and may include visual appearance, lighting, electrical  
14 connections to the power grid, ~~setback distances,~~ maximum audible sound levels,  
15 shadow flicker, proper means of measuring noise, interference with radio, telephone,  
16 or television signals, or other matters. A political subdivision may not place a  
17 restriction on the installation or use of a wind energy system that is more restrictive  
18 than these rules.

19 SECTION 7. 196.378 (4g) (f) of the statutes is created to read:

20 196.378 (4g) (f) 1. In this paragraph, "department" means the department of  
21 health services.

22 2. The department shall ~~conduct~~ <sup>encourage the submission of</sup> an epidemiological study regarding the health  
23 impacts of large wind energy systems in this state on people and animals within one  
24 mile of large wind energy systems, ~~including~~ <sup>that includes</sup> the health impacts of low frequency  
25 sound and infrasound resulting from such systems. ~~The study shall consider the~~ <sup>and considers</sup>

1 differences in health impacts, if any, on people and animals in different proximities  
 2 to and directions from such systems, as well as any differences associated with  
 3 different wind speeds and directions. The department shall submit a report to the  
 4 appropriate standing committees of the legislature under s. 13.172 (3) that describes  
 5 the study's findings and includes legislative proposals for setback requirements that  
 6 the department recommends based on the findings. The department may accept  
 7 contributions from interested stakeholders for funding the study required under this  
 8 subsection.

9 3. In <sup>preparing</sup> ~~conducting~~ the study <sup>report</sup> required under subd. 2., the department shall  
 10 consult with University of Wisconsin System personnel that, as determined by the  
 11 department, have the requisite expertise for <sup>evaluating</sup> ~~such~~ a study <sup>discussed in</sup> ~~subd. 2.~~

**SECTION 8. Initial applicability.**

13 (1) The treatment of section 196.378 (4g) (am) of the statutes first applies to  
 14 large wind energy systems for which construction commences on the effective date  
 15 of this subsection.

**SECTION 9. Effective date.**

17 (1) This act takes effect on the first day of the 4th month beginning after  
 18 publication.

(END)

↓  
 INSEAT 5-11

*reference*  
*such a study, the department*

*preparing report*

*evaluating*

*discussed in subd 2*

2011-2012 DRAFTING INSERT  
FROM THE  
LEGISLATIVE REFERENCE BUREAU

LRB-2355/lins  
MDK:.....

1 Under the bill, INSERT 2A: <sup>3</sup> and the study  
if such a study is submitted to the department ~~that~~ the department determines is  
scientifically sound, the department must

2 INSERT 2B:  
In carrying out the foregoing duties, <sup>who</sup> the department must consult with University  
\* of Wisconsin System personnel ~~that~~ the department determines have the requisite  
expertise to evaluate such a study.

3 INSERT 5-11:  
4 2. The department shall encourage interested persons to submit an  
5 epidemiological study that evaluates the health impacts of large wind energy  
6 systems in this state on people and animals within one mile of such systems,  
7 including the health impacts of low frequency sound and infrasound resulting from  
8 such systems, and that evaluates the differences in health impacts, if any, on people  
9 and animals in different proximities to and directions from such systems, as well as  
10 any differences associated with different wind speeds and directions. If such a study  
11 is submitted to the department, and the department determines ~~that~~ <sup>g</sup> the study is  
12 scientifically sound, the department shall submit a report to the appropriate  
13 standing committees of the legislature under s. 13.172 (3) describing the study's  
14 findings and recommending legislative proposals for setback requirements that are  
15 based on the findings.

16 3. In carrying out its duties under subd. 2., <sup>↓</sup> the department shall consult with  
17 University of Wisconsin System personnel ~~that~~ <sup>who</sup> as determined by the department,  
18 have the requisite expertise to evaluate a study described in subd. 2.

DRAFTER'S NOTE  
FROM THE  
LEGISLATIVE REFERENCE BUREAU

LRB-2355/1dn  
MDK: /:.....

WLy

Date

Sen. Lasee:

This version is similar to the previous version, except that it requires DHS to encourage interested parties to submit the epidemiological study. If a study is submitted ~~that~~ <sup>and</sup> DHS determines <sup>it</sup> is scientifically sound, DHS must submit a report to the legislature on the study. I added the requirement for DHS to be satisfied with the scientific soundness of the study ~~in order~~ <sup>to</sup> avoid requiring DHS to submit a report any time a study is submitted to DHS, regardless of the quality of the study. <sup>on the study</sup>

If you need any changes, please let me know.

Mark D. Kunkel  
Senior Legislative Attorney  
Phone: (608) 266-0131  
E-mail: mark.kunkel@legis.wisconsin.gov

**DRAFTER'S NOTE**  
**FROM THE**  
**LEGISLATIVE REFERENCE BUREAU**

LRB-2355/1dn  
MDK:wj:rs

August 18, 2011

Sen. Lasee:

This version is similar to the previous version, except that it requires DHS to encourage interested parties to submit the epidemiological study. If a study is submitted, and DHS determines it is scientifically sound, DHS must submit a report on the study to the legislature. I added the requirement for DHS to be satisfied with the scientific soundness of the study to avoid requiring DHS to submit a report any time a study is submitted to DHS, regardless of the quality of the study.

If you need any changes, please let me know.

Mark D. Kunkel  
Senior Legislative Attorney  
Phone: (608) 266-0131  
E-mail: [mark.kunkel@legis.wisconsin.gov](mailto:mark.kunkel@legis.wisconsin.gov)



State of Wisconsin  
2011 - 2012 LEGISLATURE



LRB-2355/10 (2)  
MDK:jld&wlj:rs

O-NOPE

2011 BILL

Todas  
by 430  
it possible

Pen for  
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Gen cut

✓ requirements

1 AN ACT to renumber 196.378 (4g) (a) 1.; to amend 196.378 (4g) (b); and to create  
 2 196.378 (4g) (a) 1g., 196.378 (4g) (a) 2g., 196.378 (4g) (a) 2r., 196.378 (4g) (am)  
 3 and 196.378 (4g) (f) of the statutes; relating to: setback distances for ~~main~~  
 4 wind energy systems and ~~requiring a report on the health impacts of such~~  
 5 ~~systems.~~ granting rule-making authority

**Analysis by the Legislative Reference Bureau**

Under current law, the Public Service Commission (PSC), with the advice of the Wind Siting Council, must promulgate rules specifying the restrictions that a city, village, town, or county may impose on the installation or use of a "wind energy system," which is defined as equipment and associated facilities that convert and then store or transfer wind energy into usable forms of energy. The restrictions must satisfy certain conditions, including preserving or protecting the public health or safety and not significantly increasing the cost of a wind energy system or significantly decreasing its efficiency. In addition, the subject matter of the rules must include setback requirements and decommissioning, and may include other matters. Current law prohibits a city, village, town, or county from placing a restriction on the installation or use of a wind energy system that is more restrictive than the PSC's rules. ~~Current law also requires the Wind Siting Council to submit a report to the legislature every five years that describes the following: 1) peer-reviewed scientific research regarding the health impacts of wind energy systems; and 2) state and national regulatory developments regarding the siting of~~

**BILL**

wind energy systems. The report must also include any recommendations for legislation.

~~The bill eliminates the requirement for the PSC to promulgate rules regarding setback requirements, and requires instead that the owners of certain wind energy systems comply with distance requirements specified in the bill. The bill's requirements apply to the owner of a "large wind energy system," which the bill defines as a wind energy system that has a total installed nameplate capacity of more than 300 kilowatts and that consists of individual wind turbines that have an installed nameplate capacity of more than 100 kilowatts. The bill defines the owner of a large wind energy system as any of the following: 1) a person with a direct ownership interest in such a system, regardless of whether the person was involved in acquiring the necessary rights, permits, and approvals or otherwise planning for the construction and operation of the system; or 2) a person acting as a developer of a large wind energy system by acquiring the necessary rights, permits, and approvals for or by planning for the construction and operation of the system, regardless of whether the person will own or operate the system. The foregoing definition is similar to a definition in rules promulgated by the PSC.~~

Under the bill, the owner of a large wind energy system must design and construct the system so that the straight line distance from the vertical center line of any wind turbine tower of the system to the nearest point on the property line of the property on which the wind turbine tower is located is at least one mile. However, the bill allows a lesser distance if there is a written agreement between the owner of the large wind energy system and the owners of all property within one mile of the property on which the system is located.

The bill also requires the Department of Health Services (department) to encourage interested persons to submit an epidemiological study regarding the health impacts of large wind energy systems in this state on people and animals within one mile of such systems. The study must include the health impacts of low frequency sound and infrasound resulting from such systems. Also, the study must consider any differences in health impacts on people and animals in different proximities to and directions from such systems, as well as any differences associated with different wind speeds and directions. Under the bill, if such a study is submitted to the department, and the department determines the study is scientifically sound, the department must submit a report to the legislature describing the study's findings. The report must also include legislative proposals for setback requirements the department recommends based on the findings. In carrying out the foregoing duties, the department must consult with University of Wisconsin System personnel who the department determines have the requisite expertise to evaluate such a study.

For further information see the *state* fiscal estimate, which will be printed as an appendix to this bill.

*The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:*

INSEAT 2A ✓

INSEAT 2B ✓

REPEAL  
GO AHEAD  
a Health Study

e

**BILL**

1           **SECTION 1.** 196.378 (4g) (a) 1. of the statutes is renumbered 196.378 (4g) (a) 1r.

2           **SECTION 2.** 196.378 (4g) (a) 1g. of the statutes is created to read:

3           196.378 (4g) (a) 1g. "Affected owner" means the owner of property located  
4 within one mile of property on which a wind energy system is installed or proposed  
5 to be installed.

6           **SECTION 3.** 196.378 (4g) (a) 2g. of the statutes is created to read:

7           196.378 (4g) (a) 2g. "Large wind energy system" means a wind energy system  
8 that has a total installed nameplate capacity of more than 300 kilowatts and that  
9 consists of individual wind turbines that have an installed nameplate capacity of  
10 more than 100 kilowatts.

11           **SECTION 4.** 196.378 (4g) (a) 2r. of the statutes is created to read:

12           196.378 (4g) (a) 2r. "Large wind energy system owner" means any of the  
13 following:

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

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

23           **SECTION 5.** 196.378 (4g) (am) of the statutes is created to read:

24           196.378 (4g) (am) A large wind energy system owner shall design and construct  
25 a large wind energy system so that the straight line distance from the vertical center



**BILL**

**SECTION 5**

1 line of any wind turbine tower of the system to the nearest point on the property line  
2 of the property on which the wind turbine tower is located is at least one mile, unless  
3 the large wind energy system owner agrees in writing with all affected owners to a  
4 distance that is less than one mile.

5 **SECTION 6.** 196.378 (4g) (b) of the statutes is amended to read:

6 196.378 (4g) (b) The commission shall, with the advice of the wind siting  
7 council, promulgate rules that specify the restrictions a political subdivision may  
8 impose on the installation or use of a wind energy system consistent with the  
9 conditions specified in s. 66.0401 (1m) (a) to (c). The subject matter of these rules  
10 restrictions shall include setback requirements that provide reasonable protection  
11 from any health effects, including health effects from noise and shadow flicker,  
12 associated with wind energy systems. The subject matter of these the rules shall also  
13 include decommissioning and may include visual appearance, lighting, electrical  
14 connections to the power grid, setback distances, maximum audible sound levels,  
15 shadow flicker, proper means of measuring noise, interference with radio, telephone,  
16 or television signals, or other matters. A political subdivision may not place a  
17 restriction on the installation or use of a wind energy system that is more restrictive  
18 than these rules.

19 **SECTION 7.** 196.378 (4g) (f) of the statutes is created to read:

20 196.378 (4g) (f) 1. In this paragraph, "department" means the department of  
21 health services.

22 2. The department shall encourage interested persons to submit an  
23 epidemiological study that evaluates the health impacts of large wind energy  
24 systems *in this state* on people and animals, *require* within one mile *near* of such systems,  
25 including the health impacts of low frequency sound and infrasound resulting from



**BILL**

1 such systems, and that evaluates the differences in health impacts, if any, on people  
 2 and animals in different proximities to and directions from such systems, as well as  
 3 any differences associated with different wind speeds and directions. If such a study  
 4 is submitted to the department, and the department determines the study is  
 5 scientifically sound, the department shall submit a report to the appropriate  
 6 standing committees of the legislature under s. 13.172 (3) describing the study's  
 7 findings and recommending legislative proposals for setback requirements that are  
 8 based on the findings.

*the PSC and*

*requiring PSC rules to be promulgated*

9 3. In carrying out its duties under subd. 2., the department shall consult with  
 10 University of Wisconsin System personnel who, as determined by the department,  
 11 have the requisite expertise to evaluate a study described in subd. 2.

**SECTION 8. Initial applicability.**

12  
 13 (1) The treatment of section 196.378 (4g) (am) of the statutes first applies to  
 14 large wind energy systems for which construction commences on the effective date  
 15 of this subsection.

**SECTION 9. Effective date.**

16  
 17 (1) This act takes effect on the first day of the 4th month beginning after  
 18 publication.

(END)

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1

**INSERT 2A:**

This bill requires that the PSC promulgate rules specifying setback requirements that a city, village, town, or county may impose on a wind energy system, but not until after the PSC receives a report from the Department of Health Services (DHS) regarding an epidemiological study that evaluates the health impacts of wind energy systems on people and animals near such systems. DHS may encourage interested persons to submit such a study to DHS, or DHS may survey scientific literature for such a study. The bill requires that the study must be scientifically sound and must do the following: 1) include the health impacts of low frequency sound and infrasound resulting from wind energy systems; 2) evaluate the differences in health impacts, if any, on people and animals in different proximities to and directions from such systems; and 3) evaluate any differences associated with different wind speeds and directions. DHS must submit a report describing the study's findings to both the PSC and the legislature. In carrying out its duties regarding the report, DHS must consult with University of Wisconsin System personnel with the requisite expertise to evaluate such a study.

Upon receipt of DHS's report, the bill requires the PSC to promulgate rules specifying the setback requirements that a city, village, town, or county may impose on the installation and use of a wind energy system. The rules must be based on the findings of the study that is the subject of the report. As under current law, the bill prohibits a city, village, town, or county from imposing a setback requirement that is more restrictive than the PSC's rules.

The bill also prohibits a person from commencing construction of a wind energy system prior to the effective date of the rules required under the bill. This prohibition applies notwithstanding the approval of a wind energy system by a city, village, town, or county. The bill includes legislative findings in support of this prohibition.

2

**INSERT 2B:**

3

**SECTION 1.** 66.0401 (1m) (intro.) of the statutes is amended to read:

4

**66.0401 (1m) AUTHORITY TO RESTRICT SYSTEMS LIMITED.** (intro.) No political

5

subdivision may place any restriction, either directly or in effect, on the installation

6

or use of a wind energy system that is more restrictive than the rules promulgated

7

by the commission under s. 196.378 (4g) (b). No political subdivision may place any

8

restriction, either directly or in effect, on the installation or use of a solar energy

9

system, as defined in s. 13.48 (2) (h) 1. g., or a wind energy system, unless the

10

restriction satisfies one of the following conditions:



INS 2B  
CONT

1           **SECTION 2.** 66.0401 (4) (f) 1. of the statutes is amended to read:

2           66.0401 (4) (f) 1. Except as provided in subd. 2., a political subdivision may not  
3 deny or impose a restriction on an application for approval unless the political  
4 subdivision enacts an ordinance that is no more restrictive than the rules the  
5 commission promulgates under s. 196.378 (4g) (b).

History: 1981 c. 354; 1981 c. 391 s. 210; 1993 a. 414; 1999 a. 150 ss. 78, 79, 84; Stats. 1999 s. 66.0401; 2001 a. 30; 2009 a. 40.

6           **SECTION 3.** 196.378 (4g) (b) of the statutes is amended to read:

7           196.378 (4g) (b) The commission shall, with the advice of the wind siting  
8 council, promulgate rules that specify the restrictions a political subdivision may  
9 impose on the installation or use of a wind energy system consistent with the  
10 conditions specified in s. 66.0401 (1m) (a) to (c). ~~The subject matter of these rules~~  
11 ~~shall include setback requirements that provide reasonable protection from any~~  
12 ~~health effects, including health effects from noise and shadow flicker, associated with~~  
13 ~~wind energy systems.~~ The subject matter of these rules shall also include  
14 decommissioning and may include visual appearance, lighting, electrical  
15 connections to the power grid, setback distances, maximum audible sound levels,  
16 shadow flicker, proper means of measuring noise, interference with radio, telephone,  
17 or television signals, or other matters. A political subdivision may not place a  
18 restriction on the installation or use of a wind energy system that is more restrictive  
19 than these rules.

History: 1999 a. 9; 2001 a. 30; 2005 a. 141; 2009 a. 40, 46; 2011 a. 34.

20           **SECTION 4.** 196.378 (4g) (f) of the statutes is created to read:

21           196.378 (4g) (f) 1. In this section, "department" means the department of  
22 health services.

23           2. The legislature finds that protecting the health and ensuring the safety of  
24 people and animals near wind energy systems is a significant and legitimate public



INS 2B  
CONT

1 purpose and a matter of statewide concern, that evaluating the potential health  
2 impacts of wind energy systems is necessary for determining setback requirements  
3 that adequately protect and ensure such health and safety, and that the moratorium  
4 on constructing new wind energy systems under subd. 5. is reasonable and necessary  
5 for the proper determination of such setback requirements.

6 3. The department shall prepare a report describing the findings of a  
7 scientifically sound epidemiological study that evaluates the health impacts of wind  
8 energy systems on people and animals near such systems, including the health  
9 impacts of low frequency sound and infrasound resulting from such systems, and  
10 that evaluates the differences in health impacts, if any, on people and animals in  
11 different proximities to and directions from such systems, as well as any differences  
12 associated with different wind speeds and directions. The department may  
13 encourage interested parties to submit such a study to the department or the  
14 department may survey the scientific literature for such a report. The department  
15 shall submit its report on the study to the appropriate standing committees of the  
16 legislature under s. 13.172 (3) and the commission.

17 4. Upon receipt of the department's report under subd. 3., the commission shall,  
18 based on the findings of the study described in the report, promulgate rules  
19 specifying the setback requirements that a political subdivision may impose on the  
20 installation and use of a wind energy system.

21 5. No person may commence construction of a wind energy system prior to the  
22 effective date of the rules required under this subdivision. This subdivision applies  
23 to a wind energy system notwithstanding any approval of the wind energy system  
24 by a political subdivision.



INS ZB  
CONT

1           6. In carrying out its duties under subd. 3., the department shall consult with  
2 University of Wisconsin System personnel who, as determined by the department,  
3 have the requisite expertise to evaluate a study described in subd. 3.

4           **SECTION 5.** 196.491 (3) (dg) of the statutes is amended to read:

5           196.491 (3) (dg) In making a determination under par. (d) that applies to a large  
6 electric generating facility, if the large electric generating facility is a wind energy  
7 system, as defined in s. 66.0403 (1) (m), the commission shall consider whether  
8 installation or use of the facility is consistent with the standards specified in the  
9 rules promulgated by the commission under s. 196.378 (4g) (b).

**History:** 1975 c. 68, 199; 1979 c. 221, 361; 1983 a. 53 s. 114; 1983 a. 192, 401; 1985 a. 182 s. 57; 1989 a. 31; 1993 a. 184; 1995 a. 27 ss. 9116 (5), 9126 (19); 1995 a. 227, 409; 1997 a. 27, 35, 204; 1999 a. 9; 1999 a. 150 s. 672; 2001 a. 16; 2003 a. 33, 89; 2005 a. 24, 29; 2007 a. 20 s. 9121 (6) (a); 2009 a. 40, 378, 379; 2011 a. 32.

(end ins ZB)

**DRAFTER'S NOTE**  
**FROM THE**  
**LEGISLATIVE REFERENCE BUREAU**

LRB-2355/2dn

MDK: A:...

date

Jld

Sen. Lasee:

Please note the following about this version:

\* 1. As drafted, the moratorium on new wind energy systems applies to a wind energy system of any size. Is that okay, or do you want the moratorium to apply only to wind energy systems that are larger than a certain size? For example, under current law, the PSC must promulgate rules regarding proof of financial responsibility for wind energy systems with a nominal operating capacity of one megawatt or more. See s. 196.378 (4g) (d). Also, the prior version of this bill required a study of a "large wind energy system," which was defined as a wind energy system that: 1) has a total installed nameplate capacity of more than 300 kilowatts; and 2) consists of individual wind turbines that have an installed nameplate capacity of more than 100 kilowatts. \*

2. If you want to limit the moratorium to wind energy systems that are larger than a certain size, how do you want to deal with wind energy systems that are smaller than that size? For example, should the PSC be allowed to promulgate setback distances for smaller wind energy systems or should political subdivisions be free to impose their own setback distances for the smaller systems?

3. The moratorium applies to commencing construction of wind energy systems, even if a political subdivision has approved the system. The moratorium will not apply if construction on a system begins before the bill's effective date. Is that okay?

4. As drafted, the bill will prohibit a political subdivision from imposing a setback requirement that is more restrictive than the requirements in the rules that the PSC will eventually promulgate. Is that okay?

3 three 5. As in the previous version, this version has a delayed effective date of approximately 3 months after publication. Is that okay?

6. Please review the legislative findings. The LRB usually does not include legislative findings in bills, but we make an exception if a bill is likely to be subject to a constitutional challenge and the findings will help to rebut the challenge. This bill may be challenged on the basis that it impairs contracts, as the bill may prevent a person who contracted for the construction of a wind energy system from commencing construction until the PSC promulgates the required setback rules. Therefore, I

included legislative findings. If you have some suggestions about the language I drafted, please let me know. ✓

Mark D. Kunkel  
Senior Legislative Attorney  
Phone: (608) 266-0131  
E-mail: [mark.kunkel@legis.wisconsin.gov](mailto:mark.kunkel@legis.wisconsin.gov)

**DRAFTER'S NOTE**  
**FROM THE**  
**LEGISLATIVE REFERENCE BUREAU**

LRB-2355/2dn  
MDK:jld:jf

August 24, 2011

Sen. Lasee:

Please note the following about this version:

1. As drafted, the moratorium on new wind energy systems applies to a wind energy system of any size. Is that okay, or do you want the moratorium to apply only to wind energy systems that are larger than a certain size? For example, under current law, the PSC must promulgate rules regarding proof of financial responsibility for wind energy systems with a nominal operating capacity of one megawatt or more. See s. 196.378 (4g) (d). Also, the prior version of this bill required a study of a "large wind energy system," which was defined as a wind energy system that: 1) has a total installed nameplate capacity of more than 300 kilowatts; and 2) consists of individual wind turbines that have an installed nameplate capacity of more than 100 kilowatts.
2. If you want to limit the moratorium to wind energy systems that are larger than a certain size, how do you want to deal with wind energy systems that are smaller than that size? For example, should the PSC be allowed to promulgate setback distances for smaller wind energy systems or should political subdivisions be free to impose their own setback distances for the smaller systems?
3. The moratorium applies to commencing construction of wind energy systems, even if a political subdivision has approved the system. The moratorium will not apply if construction on a system begins before the bill's effective date. Is that okay?
4. As drafted, the bill will prohibit a political subdivision from imposing a setback requirement that is more restrictive than the requirements in the rules that the PSC will eventually promulgate. Is that okay?
5. As in the previous version, this version has a delayed effective date of approximately three months after publication. Is that okay?
6. Please review the legislative findings. The LRB usually does not include legislative findings in bills, but we make an exception if a bill is likely to be subject to a constitutional challenge and the findings will help to rebut the challenge. This bill may be challenged on the basis that it impairs contracts, as the bill may prevent a person who contracted for the construction of a wind energy system from commencing construction until the PSC promulgates the required setback rules. Therefore, I

included legislative findings. If you have some suggestions about the language I drafted, please let me know.

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