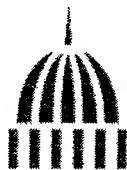


April 2006



NATIONAL CONFERENCE
of STATE LEGISLATURES

The Forum for America's Ideas

STATE SITING AND PERMITTING OF WIND ENERGY FACILITIES

Extensive discussions have been taking place around the country on the issue of siting wind energy facilities. A number of states – both those new to wind-power development and those already familiar with it – have expressed strong interest in the approaches that other states use when considering the siting of wind power plants. In response to this interest, the National Wind Coordinating Committee (NWCC) partnered with the National Conference of State Legislatures (NCSL) in preparing this compilation of sample approaches that states, municipalities and other jurisdictional entities are taking on siting. NCSL has been engaged because of its knowledge and expertise on siting guidelines in effect around the country.

The enclosed fact sheets are intended to serve as a resource document to highlight processes for siting wind energy facilities in several states. There are commonalities among states, including planning, zoning and land use requirements and wildlife concerns, yet states also differ in scope of guidelines and in primary jurisdiction for siting decisions. The states were chosen as a representation of both similarities and differences among approaches, rules and resources for siting wind energy facilities. This compilation is not meant to be comprehensive; rather, its intent is to offer examples that represent the range of siting approaches in effect across the nation.

Why are states creating guidelines?

“With total installations at the end of 2005 of more than 9,250 megawatts (MW), 2,500 MW of which were installed in 2005 alone, the wind energy market is expanding rapidly. With the extension of the Renewable Production Tax Credit (PTC) included in the Energy Policy Act (EPAct) of 2005, similar growth rates are expected through 2007.”¹ The U.S. Department of Energy projects a total onshore installation of 13,900 MW of wind by 2010 and 41,700 MW by 2015.²

Federal, state and local governments have long governed siting and permitting of energy facilities in the United States. As the growth of wind energy continues to expand, however, siting authorities are recognizing that wind energy technologies include features that are not always accounted for in existing rules. The height, motion of a wind turbine, and the arrays in which they are arranged can result in new environmental and social impacts. At the same time, this zero-emissions technology often is exempt from regulatory oversight under many air quality rules. As a result, states have begun to develop siting guidelines, model ordinances, statutes, and checklists that address specific issues that are frequently raised in siting and permitting wind energy facilities.

¹ U.S. Department of Energy, Energy Efficiency and Renewable Energy *Wind Energy Multi-Year Program Plan for 2005-2010*, November 2004.

www.eere.energy.gov/catalog/Scripts/download.asp?file=http%3A%2F%2Fwww.nrel.gov%2Fwind_meetings%2F2003_imp_meeting%2Fpdfs%2Fwind_prog_mypp_15Nov2004.pdf&prodID=957.

² U.S. Department of Energy, Energy Efficiency and Renewable Energy. FY 2006 GPRA Benefits Estimates http://www1.eere.energy.gov/ba/pba/gpra_estimates_fy06.html.

Who has jurisdiction over siting?

Jurisdiction over siting energy facilities varies from state to state. In some states, siting authority rests with a local branch of government. In these cases, county commissions, planning and zoning boards, or other local government departments are responsible for conditioning and approving wind farms and other energy facilities. Other states retain primary siting authority at the state level.

Where states maintain jurisdiction over siting and permitting wind facilities, a variety of agencies may be responsible. Connecticut, Massachusetts and Oregon have siting boards or councils that are authorized by state legislation. In Kansas, Montana and Wisconsin state-level agencies have developed voluntary guidelines for wind siting or model language for local authorities to use. Minnesota's wind permitting process is outlined in statute and is implemented by the state Environmental Quality Board.

Other state regulatory agencies often are involved in permitting processes. For example, when wildlife or other environmental issues arise, a state environmental protection agency may become involved, while issues of transport, construction and site decommissioning may involve state departments of transportation or economic development.

In addition to state and local authority, the federal government sometimes has jurisdiction over siting and permitting of wind facilities. Federal agencies exercise their authority when projects are sited on or may affect federal lands or when federally regulated natural resources or endangered species may be affected. In addition, Federal Aviation Administration (FAA) lighting and safety regulations apply to utility-scale wind energy sites whose towers are 200 feet or more in height.

Are guidelines mandatory or voluntary?

As noted above, the processes for siting approvals for wind facilities varies significantly by state. These processes fall into five main categories:

1. Mandatory, state-level wind siting statutes;
2. Voluntary guidelines for siting within states;
3. Model ordinances for local governments to apply and use;
4. Local government siting rules; and
5. Voluntary checklists and resources for local governments to recommend.

What issues do state wind siting guidelines commonly address?

In many states wind-related siting guidelines call for responsible state agencies to consult with local authorities on planning, zoning, and land use questions. This is not universally the case, however, particularly in states where siting authority is more limited at the local level in favor of a larger state agency role.

Most state guidelines dealing with wind-specific siting make reference to post-construction monitoring to ensure that no threatened or endangered species, nor their habitats, are affected by development of wind energy. In most cases, state guidelines call for applicable authorities to consult with agencies charged with implementing the Endangered Species Act and other habitat protection requirements.

Not all state approaches call for consideration of non-wildlife environmental issues, such as visual, noise, safety, and construction-related effects. Others set clear limits on allowable levels of state influence in these areas.

What other siting guidelines exist?

Other models for governing siting of wind energy facilities have been developed or are undergoing development at the federal level. The U.S. Fish and Wildlife Service (FWS) issued Voluntary Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines in July 2003, open to public comment until July 2005.³ Since the guidelines are interim, the Service has recently been considering approaches to rewrite, streamline, and update them based on comments received during the public comment period. A public collaborative effort was initiated to reach consensus on how best to reduce impacts of wind power development on wildlife. The FWS's goal is to develop a set of guidelines that achieve the requirements of the FWS to protect wildlife and their habitats while allowing environmentally responsible development to proceed.

The U.S. Bureau of Land Management (BLM) has also developed guidance on wind energy facility siting. The BLM currently administers a number of wind energy rights-of-ways on lands in several western states; the agency also has received a large number of new project proposals. In response, the BLM issued a programmatic environmental impact statement in July 2005.⁴ Additionally, the U.S. Forest Service has recently begun to develop national guidance to evaluate wind energy development proposals on national forest service land.

Wind energy developments in any state will be subject to federal requirements, such as FAA and any others that might apply. The Federal Aviation Administration must determine that facilities do not obstruct or present a hazard to air navigation generally based on the height of a structure exceeding 199 feet above ground.

How a state approaches siting wind facilities can have an impact on its ability to foster community wind projects. Recently, many states have adopted strong public policies, goals, and regulatory actions to support community wind development. Of the states highlighted in the following fact sheets, Minnesota, Iowa and Oregon have made particular progress in adopting policies that support community wind development.⁵

The NWCC *Permitting of Wind Energy Facilities: A Handbook* provides additional background on wind permitting processes.⁶

³ More information on the guidelines issued by the U.S. Fish and Wildlife Service may be found at <http://www.fws.gov/habitatconservation/wind.htm>.

⁴ More information on the programmatic environmental impact statement issued by the BLM is available online at <http://windeis.anl.gov>.

⁵ For more information on community wind reports, programs, specific projects and events go to www.windustry.org/community/default.htm.

⁶ The NWCC *Permitting of Wind Energy Facilities: A Handbook* can be downloaded at <http://www.nationalwind.org/publications/siting.htm>.

NWCC/NCSL State-By-State Guidelines Fact Sheets

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NWCC/ NCSL State-By-State Siting Guidelines Fact Sheets

STATE	CONNECTICUT
LEAD AGENCY	The Connecticut Siting Council regulates siting renewable sources greater than 1 MW.
GUIDELINE INFORMATION	The Connecticut Siting Council established guidelines in 2000 for filing for Certificates of Environmental Compatibility and Public Need Certificates, required for the construction of electric generating facilities.
REQUIREMENTS AND ISSUES GOVERNED	<p>Although Connecticut regulations are not wind-specific, the state is unique in considering all renewables together and could provide a good comparison with other states in the region that have wind-specific guidelines.</p> <p>Technical issues considered for electric generating facilities under the regulations that may affect wind energy siting include service life and capacity factor, waste disposal, noise abatement, provisions for emergency operations and shutdowns, and traffic safety.</p>
OTHER AGENCIES DESIGNATED	<p>The applicant must consult with municipal authorities, particularly elected officials, who may conduct public hearings and meetings through which to present their recommendations for the facility.</p> <p>Municipal zoning and inland wetland agencies may regulate and restrict location of an electric generating facility. Applicants must demonstrate to the Siting Council that required municipal zoning, planning and conservation permits have been filed.</p> <p>Applicants must use reasonable efforts to inform local community groups, including land trusts and environmental groups.</p>
ADDITIONAL RESOURCES	<p>The Institute for Sustainable Energy at Eastern Connecticut State University provides a host of resources on wind energy resources and other electricity issues in Connecticut: http://www.easternct.edu/depts/sustainenergy/publication/reports.htm.</p> <p>The Connecticut Clean Energy Fund (CCEF) works regionally to support renewable sources and has information about wind siting in the region: http://www.ctcleanenergy.com/.</p>
FOR MORE INFORMATION	<p>The Web site for the Connecticut Siting Council provides the application guide for electric generating facilities: http://www.ct.gov/csc/cwp/view.asp?a=945&Q=247580&cscPNavCtr=#31223.</p> <p>Derek Phelps Connecticut Siting Council Ten Franklin Square New Britain, CT 06051 (860) 827-2948 derek.phelps@ct.gov</p>

STATE	IOWA
LEAD AGENCY	Local (municipal or county) authorities.
GUIDELINE INFORMATION	<p>Actual siting authority in the state is at city or county levels, or both. Each county or city may have different guidelines and application procedures to follow. For projects located outside city limits, county boards of supervisors will have jurisdiction. Within city limits, local city planning offices will have established planning and zoning ordinances</p> <p>The Iowa Department of Natural Resources (DNR) has developed a map of "Areas of Concern for Wind Farm Sitings." The map highlights protected natural resource and wildlife areas where developers may want to take extra precautions when developing wind farms. The DNR also established guidance – <i>Iowa Wind Energy Checklist</i> – on developing a small wind turbine project in Iowa.</p>
REQUIREMENTS AND ISSUES GOVERNED	It is required that applicants check with local permitting officials for specific siting guidelines. If more than 1 acre of land is used for construction, a state storm water construction permit may be required from the wastewater section of the Iowa DNR.
OTHER AGENCIES DESIGNATED	County board of supervisors or city planning office, Iowa DNR, and the Federal Aviation Administration.
ADDITIONAL RESOURCES	<p>Contact the Iowa DNR Wastewater Construction Section for state regulations regarding stormwater and wastewater management.</p> <p>Wayne Farrand (515) 281-8877 http://www.iowadnr.com/water/wastewater/</p> <p>FAA forms and instructions are available online at https://www.oiaa.faa.gov.</p>
FOR MORE INFORMATION	<p>The Iowa Checklist is available online at http://www.iowadnr.com/energy/renewable/files/windchecklist.pdf.</p> <p>Doug Harr Wildlife Diversity Program Coordinator Iowa Department of Natural Resources Wallace State Office Building Des Moines, IA 50319-0034 Phone: (515) 281-4815 Doug.Harr@dnr.state.ia.us</p>

STATE	KANSAS
LEAD AGENCY	The Kansas guidelines were issued by the Kansas Energy Council in a <i>Wind Energy Siting Handbook</i> intended for use by county planning boards and zoning commissions.
GUIDELINE INFORMATION	<p>In 2005, the Kansas Energy Council issued the <i>Wind Energy Siting Handbook</i>, outlining steps necessary to site wind facilities in Kansas generally, and at county levels specifically. Although the guidelines are nonbinding, they refer to other standards and language that are binding.</p> <p>The siting handbook identifies general project guidelines and standards and illustrates these with examples from four Kansas counties that have adopted language or have language under consideration. The handbook also provides application templates for local government officials to use.</p> <p>In addition, a Kansas renewable energy working group issued nonbinding guidelines in 2003.</p>
REQUIREMENTS AND ISSUES GOVERNED	<p>Guidelines for obtaining permits vary by county and focus on several siting aspects. These include:</p> <p>Land Use, especially with attention to effects on rare and disappearing ecosystems such as intact tallgrass, shortgrass or mixed grass prairies. Development is encouraged on already altered landscapes.</p> <p>Natural and Biological Resources, encouraging use of environmental experts to assess sites before development. The guidelines recommend that, where possible, development in large, intact areas of native vegetation be discouraged.</p> <p>Underground installation of power lines also is recommended. Consideration of mitigation for habitat loss and cumulative regional impact analysis is important.</p> <p>Noise, especially noting setbacks from residential areas and rural homes.</p> <p>Visual Impact recommendations include requiring accurate visual representations of potential projects to indicate turbine color and site layout, tower height, ridge line versus lower land areas, effects on scenic byways, and lighting.</p> <p>Soil Erosion and Water Quality considerations include steps taken during construction, maintenance and operation of sites.</p> <p>Safety recommendations include considering setbacks, road access, and ice throw (ice build-up that might be thrown by spinning blades).</p> <p>Cultural, Archeological and Paleontological considerations are important, especially with regard to Native American tribal sensitive resources and sites.</p> <p>Recommended filings to county agencies include:</p> <ul style="list-style-type: none"> • <i>Site plan,</i> • <i>Visual impact assessment,</i> • <i>Environmental assessment,</i> • <i>Economic assessment, and</i> • <i>Decommissioning and reclamation plan.</i>

	A public review process by the Metropolitan Planning Commission may be required, as may a Power Purchase Agreement for electricity generation.
OTHER AGENCIES DESIGNATED	The Kansas Department of Wildlife and Parks should be consulted about endangered and threatened species, as well as other resource management agencies (such as the Kansas State Historical Society) that should be contacted early in the planning process to determine if any requirements exist.
ADDITIONAL RESOURCES	<p>Kansas Association of Counties was involved in development of the <i>Wind Energy Siting Handbook</i> (785) 272-2585.</p> <p>A Kansas renewable energy working group issued non-binding guidelines in 2003, which are available online at http://www.naseo.org/committees/energyproduction/documents/wind/kansas_siting_guidelines.pdf.</p> <p>The Southwest Kansas Royalty Owners Association (SKROA) created <i>Guidelines for Landowners in Negotiating Wind Energy Leases</i> at http://pta6000.pld.com/swkroa/gflinwel.pdf.</p> <p>A map of wind energy sites in Kansas developed by the Kansas Energy Council is available at http://www.kansasenergy.org/KEC/WindProjects.pdf.</p>
FOR MORE INFORMATION	<p>A comprehensive list of links related to wind energy and energy facility siting in Kansas is available from the Kansas Energy Information Network at http://www.kansasenergy.org/wind_resources.htm.</p> <p>Jim Ploger, Director Kansas Energy Office 1500 SW Arrowhead Road Topeka, KS 66604 Phone: (785) 271-3349 j.ploger@kcc.state.ks.us</p>

STATE	MASSACHUSETTS
LEAD AGENCY	The Massachusetts Energy Facilities Siting Board, an independent state review board located administratively within the Massachusetts Department of Telecommunications and Energy.
GUIDELINE INFORMATION	In October 2002, the Massachusetts Energy Facilities Siting Board published a revised version of the <i>Energy Facilities Siting Handbook</i> .
REQUIREMENTS AND ISSUES GOVERNED	The Massachusetts siting agency requirements are not wind-specific, apply to generating plants of 100 MW or more, and focus on environmental impacts and mitigation. Transmission lines of 69 kV (kilovolts) or greater also may require review, depending on length and right-of-way characteristics.
OTHER AGENCIES DESIGNATED	<p>A number of other state agencies, in addition to the Siting Board, are identified as having responsibilities in connection with regulation and development of energy facilities. The two agencies most frequently involved are the Massachusetts Office of Environmental Affairs' MEPA Unit and the Department of Environmental Protection.</p> <p>Other agencies with potential involvement include:</p> <ul style="list-style-type: none"> • Department of Telecommunications and Energy, • Division of Energy Resources, • Department of Environmental Management, • Massachusetts Natural Heritage and Endangered Species Program, • Massachusetts Water Resources Authority, • Office of Coastal Zone Management, • Massachusetts Historical Commission, • Massachusetts Highway Department, • Department of Public Health, and • Department of Public Safety. <p>In addition to this list of state agencies with potential jurisdiction over siting wind facilities, local agencies and officials may potentially be involved, depending on the type of facility. These individuals and agencies may include building inspectors, planning boards, conservation commissions, water departments, fire departments, historical commissions, boards of health, and departments of public works.</p> <p>Although the Siting Board does not regulate siting projects of less than 100 MW, siting requirements for small facilities may exist within the state Department of Environmental Protection or at the local level.</p>
ADDITIONAL RESOURCES	As part of initial notification processes for facilities that fall under the jurisdiction of the Siting Board, the board customarily mails notice of an applicant's petition to local and state officials who represent the municipality or municipalities where a facility is proposed.
FOR MORE INFORMATION	<p>Massachusetts Energy Facilities Siting Board</p> <p>One South Station</p> <p>Boston, MA 02110</p> <p>Phone: (617) 305-3525</p> <p>www.state.ma.us/dpu/siting_board.htm</p>

STATE	MINNESOTA
LEAD AGENCY	Minnesota Public Utilities Commission
GUIDELINE INFORMATION	Minn. Stat. §§116C.691 – 116C.697 Minn. Rule, Chapter 4401
REQUIREMENTS AND ISSUES GOVERNED	<p>Minnesota's wind permitting process requires that:</p> <ol style="list-style-type: none"> 1. Developers secure site permits for any facility larger than 5 MW.* 2. Permits are either issued or denied within 180 days of submission of completed applications. 3. Environmental review has been built into the permitting application process to avoid duplication of efforts. 4. Affected landowners and local units of government receive a copy of permit applications and have 30 to 45 days to submit their comments. The state also will hold a public comment meeting for each application. The state may hold a contested case hearing if requested by the public. 5. The state can place conditions on several characteristics related to siting a turbine, including turbine design and layout, noise, vegetation, wildlife and natural resources; and requires developers restore properties upon decommissioning facilities. <p>Although Minnesota does not regulate wind systems of less than 5 MW, nothing in wind permitting requirements precludes a local government unit from establishing requirements for siting and construction of small wind systems. A number of counties are in planning processes developing model wind ordinances.</p> <p>* Issuance of a site permit does not automatically authorize construction of the facility. The permittee must first obtain a power purchase agreement.</p>
OTHER AGENCIES DESIGNATED	Not applicable.
ADDITIONAL RESOURCES	For links to Minn. Rule, Chapter 4401 and PUC permitted projects and documents go to http://energyfacilities.puc.state.mn.us/wind.html .
FOR MORE INFORMATION	<p>Larry Hartman Minnesota Department of Commerce 85 7th Place East, Suite 500 Saint Paul, MN 55101-2198 Phone: (651) 296-5089 larry.hartman@state.mn.us</p>

STATE	OREGON
LEAD AGENCY	Energy Facility Siting Council
GUIDELINE INFORMATION	Or. Rev. Stat. §§469.300 – 469.560 Or. Admin. Rules Chapter 345
REQUIREMENTS AND ISSUES GOVERNED	<p>The framework for siting wind energy facilities with generating capacities of 105 MW or more is outlined in the state's energy policy. Associated legislative policy statements outline the state's commitment to not leaving future generations with a legacy of vanished or depleted resources as a result of a growth in demand for nonrenewable energy.</p> <p><i>State-Level Siting Process</i></p> <p>Oregon law requires permits, or site certificates, before any large wind energy facility can be constructed in the state. The Oregon Energy Facility Siting Council has primary responsibility for issuing site certificates for wind facilities that have peak generating capacities of 105 MW or more.</p> <p>The site certificate serves as a consolidated state permit. Therefore, if the Siting Council issues a site certificate, then other state and local government permits required for the project also must be issued. These other permits potentially include Conditional Use Permits for land use, Water Rights, Wetlands Removal or Fill Permits and other environmental permits based on state regulations. Issuing agencies and governments are bound by the site certificate. Once a certificate has been issued, the state agencies and local governments must issue their permits, subject only to conditions contained in the site certificate.</p> <p>This system allows for coordination of permitting through one state agency – the Oregon Department of Energy. This means that there is one public hearing, one contested case, and one avenue for appeal of decisions. There is only one level of judicial review of a site certificate – all appeals go directly to the Oregon Supreme Court.</p> <p>The Siting Council has the authority to apply conditions to its approval of a site certificate. It is important to note that the Siting Council does not select the location of a proposed energy facility and cannot require a developer to locate a proposed facility at a different location.</p> <p><i>Local-Level Siting Process</i></p> <p>In contrast to the consolidated state-level approach, local-level siting decisions for wind facilities of less than 105 MW (peak generating capacity) are far more complex. Developers should initially apply to the land use planning authorities in local jurisdictions where wind facilities are proposed and follow their procedures to obtain conditional use permits. Concurrently, developers would need to contact all appropriate state agencies to ensure that proposed wind facilities would qualify under all other permitting regulations that affect site approval. An important point to note is that, although a conditional use permit is binding on local government, it is not binding on state agencies.</p>

	"One-stop shopping" available for permits at the state level is not available at local levels because each locale has its own procedures and ordinances that vary from county to county and city to city. Because most local land use ordinances address energy facility siting superficially, if at all, some uncertainty exists about what standards local jurisdictions will apply when deciding whether to issue a conditional use permit.
OTHER AGENCIES DESIGNATED	The Energy Siting Group within the Nuclear Safety and Energy Siting Division of the Oregon Department of Energy serves as staff to the Siting Council. Energy siting staff receive site certificate applications and perform a detailed review and analysis. The Department of Energy serves as the main point of contact with the public for information about pending applications.
ADDITIONAL RESOURCES	http://egov.oregon.gov/ENERGY/SITING/index.shtml
FOR MORE INFORMATION	Tom Stoops Manager - Energy Siting Group Oregon Department of Energy 625 Marion Street, NE Salem, OR 97301-3737 (503) 378-4040 or (800) 221-8035 energy.in.internet@state.or.us

STATE	VERMONT
LEAD AGENCY	The Vermont Public Service Board
GUIDELINE INFORMATION	Public Service Board Rule 5.400: Requirements for Petitions to Construct Electric and Gas Facilities Pursuant to 30 V.S.A. § 248
REQUIREMENTS AND ISSUES GOVERNED	<p>Section 248 and Rule 5.400 requirements apply to all electric generation and transmission facilities; however, Rule 5.400 contains some requirements that are specific to wind generation facilities.</p> <p>Vermont bases approval for construction of new electric generation and transmission facilities on findings by the Public Service Board (PSB) that proposed projects will promote the general good of the state and issues a certificate to that effect. With respect to facilities located in the state, the PSB is required to hold a public hearing in at least one county in which construction of facilities is proposed and a technical, evidentiary hearing.</p> <p>Prior to issuing a certificate of public good, the PSB must find that construction of facilities in-state meets a checklist of requirements, which includes the following:</p> <ul style="list-style-type: none"> • The facility may not unduly interfere with orderly development of the region, taking into consideration recommendations of municipal and regional planning commissions, recommendations of municipal legislative bodies, and land conservation measures contained in municipal plans. • Facilities must meet the need for present and future demand for service that could not otherwise be provided in a more cost effective manner through energy conservation, energy efficiency, and load management programs and measures. • Facilities cannot adversely affect system stability and reliability. • Facilities will result in an economic benefit to the state and its residents. • Facilities cannot have undue adverse effects on esthetics, historic sites, air and water purity, the natural environment, and public health and safety. • Rule 5.400 requires petitions for wind generation facilities to address the impact on orderly development and aesthetics for a ten-mile radius from the proposed project site. <p>Although companies are subject to compliance with requirements outlined above, nothing in the statute prohibits it from executing a letter of intent or entering into a contract prior to issuance of a certificate of public good by the PSB.</p>
OTHER AGENCIES DESIGNATED	The Vermont Department of Public Service and the Vermont Agency of Natural Resources are both automatic parties to any siting cases.

ADDITIONAL RESOURCES	<p>The Vermont PSB has put together a small booklet that outlines considerations for siting small wind turbines for individual, residential or business use. The document is available on the Web at http://www.state.vt.us/psb/application_forms/PSB_Wind.PDF.</p> <p>The PSB has also developed a <i>Citizens Guide to the Vermont Public Service Board's Section 248 Process</i>, available at http://www.state.vt.us/psb/document/Citizens_Guide_to_248.PDF.</p>
FOR MORE INFORMATION	<p>The Vermont Public Service Board 112 State Street Montpelier, VT 05620 (802) 828-2358 or psb.clerk@state.vt.us www.state.vt.us/psb</p>

STATE	WASHINGTON
LEAD AGENCY	<p>The Washington Energy Facility Site Evaluation Council (EFSEC) —All major energy facilities (greater than 350 MW) and any sized renewable energy facilities that choose to participate in the EFSEC review process.</p> <p>Local Government and State Agencies—Energy facilities not under the Council's jurisdiction and 100 percent renewable energy facilities that choose not to participate in the Council's process.</p>
GUIDELINE INFORMATION	<p>For facilities under jurisdiction of the Energy Facility Site Evaluation Council: Wash. Rev. Code §§80.50.010 - 80.50.904 Wash. Admin. Code chaps. 463-06 - 463-78</p>
REQUIREMENTS AND ISSUES GOVERNED	<p>Before a major energy facility can be sited, constructed or operated in the state of Washington, an application must be filed with the Energy Facility Site Evaluation Council (Council). The Council was created to provide a one-stop licensing shop for major energy facilities, with the exception of hydropower.</p> <p><i>Certification Process</i> As noted above, the Council is the primary authority in the state licensing process for siting, construction and operation of energy projects. Before beginning the certification process, prospective applicants may request that the Council conduct a preliminary site study. This study can help determine if any environmental, social or regulatory "hurdles" exist that cannot be overcome, rendering projects unsuitable.</p> <p>The Council considers all environmental and socioeconomic impacts before approving sites. After evaluating applications, the Council makes a recommendation to the governor to either approve or disapprove the Site Certification Agreement. This agreement outlines conditions the applicant must meet during construction and operation of facilities.</p> <p><i>Major Energy Facilities</i> The Council statute (Wash. Rev. Code §80.50.020) provides a list of major energy facilities subject to review. Energy facilities of any size that exclusively use alternative energy resources (wind, solar, geothermal, landfill gas, wave or tidal action, or biomass energy) can choose to participate in the Council's review and certification process.</p> <p><i>Preliminary Site Study</i> An optional preliminary site study allows the Council to begin assessing what resources it will need to review and process applications; at the same time, this saves applicants time and expense by informing them of existing environmental conditions. Following requests to study potential sites, the Council contracts with independent consultants to study relevant site issues.</p> <p>The study includes analysis of potential environmental impacts on proposed sites, as well as other issues that the Council and the applicant view as essential to conducting an adequate assessment.</p>

	<p>Certification</p> <p>The Energy Facility Site Evaluation Council certification process was designed to allow applicants the opportunity to present their proposals and to allow interested parties to express any concerns. The Council outlines seven major steps in the certification process:</p> <ol style="list-style-type: none"> 1. Application Submittal, 2. Application Review, 3. Initial Public Hearings, 4. Review Under the State Environmental Policy Act, 5. Adjudicative Proceedings, 6. Review of Additional Permits Required, and 7. Recommendation to the Governor. <p>Each step in the certification process includes detailed requirements that both applicants and the Council must follow. These requirements are in place to ensure that comprehensive and balanced reviews of projects takes place. Although outlined separately, a number of the steps occur simultaneously.</p> <p>The Washington Legislature passed HB 2402 in March 2006, which provides for expedited review for those facilities that pass the State Environmental Policy Act checklist for renewable energy applications. This piece of legislation can be accessed at www1.leg.wa.gov.</p> <p>* Energy facilities not under Council jurisdiction and renewable energy facilities that do not choose to participate in the Council's siting process go through local government review and receive permits directly from county and state agencies. For example, the Board of County Commissioners in both Kittitas and Klickitat Counties are the primary siting and permitting authority for wind developers.</p>
<p>OTHER AGENCIES DESIGNATED</p>	<p>Other state and federal agencies play roles in siting and permitting of wind energy facilities in Washington state under specific circumstances. These include:</p> <ul style="list-style-type: none"> • U. S. Army Corps of Engineers for work in wetlands; • Federal agencies that implement the National Environmental Policy Act; • Washington Department of Ecology for work in wetlands and issues associated with air emissions and water discharges; and • Washington Department of Fish and Wildlife to obtain Hydraulic Permit Approval for water body crossings.
<p>ADDITIONAL RESOURCES</p>	<p>Kittitas County amended its zoning ordinance in 2002 to include a chapter on the Wind Farm Resource Overlay Zone. (Kittitas County Code, tit. 17, §§17.61A.010 - 17.61A.040) The text of the Overlay Zone is available online at http://www.co.kittitas.wa.us/boc/countycode/title17.asp#Chapter_17.61A.</p> <p>The Washington Department of Fish and Wildlife issued guidelines to be used when siting wind facilities in the state. The <i>Wind Power Guidelines</i>, issued in August 2003, are available online at http://wdfw.wa.gov/hab/engineer/windpower/.</p>

April 2006

**FOR MORE
INFORMATION**

Energy Facility Site Evaluation Council
925 Plum Street SE - Building Four
P.O. Box 43172
Olympia, WA 98504-3172
(360) 956-2121 or efsec@cted.wa.gov
www.efsec.wa.gov

STATE	WISCONSIN
LEAD AGENCY	The Public Service Commission of Wisconsin and the Department of Administration, Energy Bureau, with cooperation from the Department of Natural Resources.
GUIDELINE INFORMATION	<p>Model wind ordinance was promulgated in 2005, and implementation language is under development and available for comment at www.doa.state.wi.us/docs_view2.aps?docid=2869.</p> <p>The ordinance was developed to provide a framework for wind energy facilities' regulation by towns and counties in Wisconsin, including reasonable restrictions consistent with town and county authorities.</p> <p>The ordinance is applicable to siting wind turbines taller than 170 feet and with a nameplate capacity of greater than 100 kilowatts.</p>
REQUIREMENTS AND ISSUES GOVERNED	<p>The model wind ordinance creates recommendations for addressing a number of issues:</p> <ul style="list-style-type: none"> • Visual appearance <ul style="list-style-type: none"> - Requires towers be painted with nonreflective colors, blend into natural setting, no artificial light besides that required by FAA, not used to display advertising; wiring and power lines must be wireless or below ground. • Land Use <ul style="list-style-type: none"> - Setbacks and separation requirements from inhabited structures, property lines, public roads, and communication and electrical lines. • Audible and tonal noise standards <ul style="list-style-type: none"> - Operations are not to exceed 50 decibels for any period of time near inhabited structures; additional regulations exist for operations containing a steady pure tone and ambient noise. • Minimum ground clearance <ul style="list-style-type: none"> - Required clearance of no less than 75 feet. • Signal interference <ul style="list-style-type: none"> - Requires mitigating signal interference with electromagnetic communications. • Safety issues <ul style="list-style-type: none"> - Involving wiring, provisions for climbing towers, lockable doors to towers and equipment, and appropriate warning signage in and around the facility.
	<p>The Wisconsin DNR also has recommended guidelines for siting to account for natural resource elements and suggests that "a baseline wildlife evaluation be conducted for each site under serious consideration for windfarm development."</p> <p>Site-specific guidelines can be used to complement guidelines from the U.S. Fish and Wildlife Service. Site characterization studies should be consistent with those described in U.S. Fish and Wildlife Service guidelines for wind development and wind evaluation studies developed by the NWCC.</p>

ADDITIONAL RESOURCES	<p>NWCC publications related to Avian/Wildlife/Wind Interactions www.nationalwind.org/publications/avian.htm.</p> <p>A synopsis of the American Bird Conservancy's Wind Energy Policy www.abcbirds.org/policy/windenergy.htm.</p>
FOR MORE INFORMATION	<p>Alex DePillis Wisconsin Department of Administration, Energy Bureau P.O. Box 7868 Madison, WI 53707-7868 (608) 267-6931 alex.depillis@doa.state.wi.us</p> <p>Paul Helgeson Public Service Commission of Wisconsin P.O. Box 7854 Madison, WI 53707-7854 (608) 266-3905 Paul.Helgeson@psc.state.wi.us</p> <p>Steve Ugoretz Wisconsin Department of Natural Resources Office of Energy P.O. Box 7921 Madison, WI 53707-7921 (608) 266-6673 Steven.Ugoretz@dnr.state.wi.us</p>

**NWCC Members and Associate Members include
representatives from:**

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Agricultural Interests
Rural Development

Electric Power

Co-operatives
Investor Owned Utilities
Public/Municipal Utilities

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Renewable Energy Advocates

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Bureau of Land Management
Department of Energy
Fish and Wildlife Service
National Renewable Energy Laboratory

Green Power

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State Energy Offices
Regulatory Agencies
State Environmental Agencies

Tribal Governments

Wind Industry

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For more information, or to receive copies of NWCC publications, contact:

***National Wind Coordinating Committee
c/o RESOLVE
1255 23rd Street, N.W., Suite 275
Washington, DC 20037
e-mail: nwcc@resolve.org
(888) 764-WIND
www.nationalwind.org***

The production of this document was supported by the National Renewable Energy Laboratory under the subcontract YAM-4-33-217-01. Financial support by the National Renewable Energy Laboratory and the Department of Energy does not constitute an endorsement by these institutions of the views expressed in this document.

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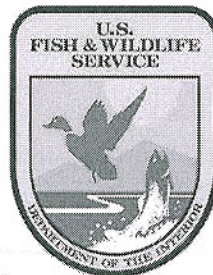
WIND POWER SITING REGULATIONS AND WILDLIFE GUIDELINES IN THE UNITED STATES



Wind Farm – Sherman County, OR



ASSOCIATION of
FISH & WILDLIFE
AGENCIES



April 2007

IOWA

Contact: Jennifer Moehlman, Iowa Department of Natural Resources, Energy and Waste Management Bureau, (515)281-8518, jennifer.moehlmann@dnr.state.ia.us,

Installed Utility Scale Wind Power: 936 MW

Renewable Portfolio Standard: Yes - 105 MW

State Renewable Energy Incentives: Grant and loan programs; tax incentives

Power Siting Authority: In Iowa, zoning and permitting is handled on a county and/or city level. Each county or city may have different guidelines and application procedures to follow. The Iowa Department of Natural Resources (DNR) has developed guidance – *Iowa Wind Energy Checklist* – on developing a small-scale wind turbine project in Iowa.

(<http://www.iowadnr.com/energy/renewable/files/windchecklist.pdf>). The Iowa Utilities Board provides a certificate of public convenience, use, and necessity for electric power generating plant or a combination of plants at a single site, owned by any person, with a total capacity of 25 MW of electricity or more. However it has been argued successfully that wind does not always have to go through the Board since it is typically individual generating units connecting to several different lines. Exemptions have been authorized in part because wind is a renewable energy source that the Board has been required to promote.

Wind Specific Siting Authority? No

Code or Regulations: Iowa Code §§ 476A.1 to 19

Role of State Fish & Wildlife Agency: All projects are reviewed and subject to environmental regulation by the Department of Natural Resources. The Utilities Board often defers to the DNR on environmental and land use factors. Counties are not required to consult with DNR. DNR is monitoring wind farms for avian mortality.

Wildlife Guidelines for Wind Power Siting: No Guidance for wildlife; The DNR has developed a map of “Areas of Concern for Wind Farm Sitings.” The map highlights protected natural resource and wildlife areas where developers may want to take extra precautions when developing wind farms.

MINNESOTA

Contact: Energy Information Center, (651) 296-5175, energy.info@state.mn.us,

Installed Utility Scale Wind Power: 895 MW

Renewable Portfolio Standard: Yes (goal) - 10% by 2015 + Xcel Energy mandate of 1125 MW wind by 2010

State Renewable Energy Incentives: Rebates, tax incentives, loan programs, production incentives.

Power Siting Authority: Minnesota Public Utility Commission for projects greater than 5 MW - this regulatory authority was transferred to the PUC from the Minnesota Environmental Quality Board in July 2005. The PUC has a specific set of requirements for siting of wind energy facilities (separate from other electric generating facilities). Information on wind siting can be found at: <http://energyfacilities.puc.state.mn.us/wind.html>. County governments are responsible for smaller wind facilities

Wind Specific Siting Authority? Yes

Code or Regulations: Wind siting authority – Minn. Stat. §§ 116C.691-.697; Permitting requirements – Minnesota Rules Chapter 4401

Role of State Fish & Wildlife Agency: The commission requires, among other things, an analysis of the proposed facility's potential environmental and wildlife impacts, proposed mitigative measures, and any adverse environmental effects that cannot be avoided.

How are wildlife laws applied: Much of the wind power development potential is in the southwest portion of the state, so the state conducted one large 4-year avian impact study and a 2-year bat impact study in the area. On the basis of the results of the state-required studies, state and local agencies in Minnesota are not requiring post-construction studies for wind power development in this portion of the state.

Wildlife Guidelines for Wind Power Siting: No Guidance

NORTH DAKOTA

Contact: John Schumacher, Resource Biologist, ND Game & Fish Dept, (701) 328-6321, jdschumacher@nd.gov

Installed Utility Scale Wind Power: 178 MW

Renewable Portfolio Standard: No

State Renewable Energy Incentives: Tax incentives

Power Siting Authority: North Dakota Public Service Commission regulates siting of wind power facilities greater than 100 MW by providing a Certificate of Site Compatibility, facilities smaller than 80 MW may choose to receive certification by the PSC. Smaller facilities may be regulated by local zoning but this is highly variable by township or county board.

Wind Specific Siting Authority? Yes

Code or Regulations: North Dakota Administrative Code, Title 69-06

Role of State Fish & Wildlife Agency: The Game & Fish Department has joint environmental review and is one of 21 designated state agencies entitled to receive notice on energy facility siting reviewed by PSC (69-06-01-05).

How are wildlife laws applied: Same as any other utility project. The PSC can require mitigation as part of the permitting process for facilities greater than 100 MW.

Wildlife Guidelines for Wind Power Siting: Uses US Fish & Wildlife Service's interim guidelines.

SOUTH DAKOTA

Contact: Silka Kempema, South Dakota Department of Game, Fish and Parks (SDGFP), (605) 773-2742, silka.kempema@state.sd.us, 523 East Capitol Avenue, Pierre, SD 57501

Installed Utility Scale Wind Power: 44 MW

Renewable Portfolio Standard: No

State Renewable Energy Incentives: Tax incentives

Power Siting Authority: South Dakota Public Utility Commission (SDPUC) has permitting authority for energy conversion and transmission facilities and has regulatory authority to provide siting guidelines for wind power projects greater than 100 MW. Smaller projects are subject to local government review, only a few counties currently have regulations specific to wind power.

Wind Specific Siting Authority? Yes

Code or Regulations: SDCL 49-41B provides SDPUC regulatory authority; SDPUC Energy Facility Siting Rules (20:10:22); South Dakota Environmental Policy Act (SDCL 34A-9).

Role of State Fish & Wildlife Agency: SDPUC has agreed to distribute siting guidelines developed by SD Department of Game, Fish & Parks to stakeholders involved in the development of wind power in South Dakota.

How are wildlife laws applied: Prior to the issuance of a permit, the SDPUC may prepare or require the preparation of an environmental impact statement and applicants must demonstrate that all applicable state water and air quality standards and regulations (administered by SDDENR) are met. State does not have the authority to require mitigation. The state Endangered and Threatened Species law (SDCL 34A-8) does not allow for take except as provided for in the statute.

Wildlife Guidelines for Wind Power Siting: Siting Guidelines for Wind Power Projects in South Dakota

Lead Agency on Guidelines: Department of Game, Fish & Parks

Status of Wildlife Guidelines: Final

Summary of Guidelines: South Dakota's voluntary guidelines were developed using Kansas Renewable Energy Working Group Environmental and Siting Committee's Siting Guidelines for Wind power Projects in Kansas and the National Wind Coordinating Committee's Permitting of Wind Energy Facilities: A Handbook. The guidelines address activities and concerns associated with siting and permitting wind turbines. Items addressed within the guidelines are divided into eleven categories. These categories are as follows: 1) land use, 2) natural and biological resources, 3) noise, 4) visual resources, 5) public interaction, 6) soil erosion and/or water quality, 7) health and safety, 8) cultural, archaeological, and paleontological resources, 9) socioeconomic, public service, and infrastructure, 10) solid and hazardous wasters, and 11) air and climate.

Web site for Guidelines: <http://www.sdgfp.info/Wildlife/Diversity/windpower.htm>