

Wind Power: Permitting in Your Community



Wind Power on the Community Scale

Community
Wind Power
Fact Sheet #

7

RERL—MTC Community Wind Fact Sheet Series

In collaboration with the Massachusetts Technology Collaborative's Renewable Energy Trust Fund, the Renewable Energy Research Laboratory brings you this series of Fact Sheets about Wind Power on the community scale:

1. Technology
2. Performance
3. Impacts & Issues
4. Siting
5. Resource Assessment
6. Wind Data
7. Permitting Case Studies

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The Permitting Process: Overview

After the wind resource and project site have been determined and the community outreach effort has been started, the next step is to apply for the necessary permits.

The primary permits needed to construct most community-scale wind power projects will be the local permits: building, zoning, and/or conservation, as applicable to a specific site. Additionally, the project will need to be filed with the FAA and with the operators of the New England electrical grid. Depending on the site, other permits may come into play.

This document outlines these basic permits and also

lists other authorities that may have jurisdiction over community-scale wind power projects. Hyperlinks are given in the on-line version, available on the RERL website.

This fact-sheet focuses on land-based community-scale wind power projects with medium or large turbines. For information on permitting offshore projects, contact RERL. This Fact Sheet also does not focus on financial and insurance issues, such as power purchase agreements and turbine certification; refer to Fact Sheets 1 and 2 for more information on these subjects.

General Considerations

- Project goals: Prepare a clear statement about the goals of your wind power project. This statement should, in a few words, be able to represent your project to the world.
- If required, an alternatives analysis focuses attention on:
 - Why is the chosen site the best site?
 - Would other sites be acceptable? Why or why not?
- Supporting Information:
 - The more information you have to support the statements made in your application, the more likely the permit is to be granted and the clearer it will be to the public.
 - Have as many impact studies as possible completed or in progress before submittal or demonstrate that they do not apply.
 - Wildlife, avian, endangered species
 - Wetlands
 - Visual
 - Noise
 - Archeological / historical
 - Transportation and safety
 - Photo simulations are recommended by the permitting agencies and are helpful for the public. The Massachusetts Historical Commission may request photo simulations taken from



historic resources, if it has properties within a few miles.

- Electrical: You will also need permits for the areas affected by the electrical cable/line and grid interconnection.
- Project benefits: When writing applications, it is tempting to focus on mitigating harmful impacts. While this is essential, it is also relevant and helpful to quantify the benefits of your project (displacing pollutants, etc.), especially in light of the Commonwealth's air quality goals and renewable portfolio standard.
- Project science: Thorough investigation and characterization of the wind resource will provide good support for

your permit application. See the Fact Sheets on resource assessment and wind resource data for more information.

- Installation:
 - Understanding the wind turbine installation process will help you think about land requirements, e.g. for equipment staging.
 - Including a description of the installation sequence and any necessary mitigation is helpful.
- Public relations:
 - Allow time for public comment period.
 - Work with local groups and understand the local political process.

Agencies

That may have Jurisdiction in Community-Scale Wind Projects

The following regulations may apply to a community wind power project at a given site. The order in which permits are issued is typically Local, State, then Federal. Links to most of the forms are included below (in the on-line version of this document).

Local

Regulation / Permit	Authority	Comments
Zoning permit	Town Zoning Board	Some towns have height or setback restrictions that may require a variance.
Special local permit or variance	Town Zoning Board	Needed if zoning bylaws do not yet include wind power projects.
Building permits	Building Inspector	
Board Approval	Planning Board	
Order of Conditions (OOC)	Town Conservation Commission (CC)	<p>This permit is required if wetlands will be altered in any way. The permit application is called a Notice of Intent and is also sent the Mass. Dept. of Environmental Protection. See also Notice of Intent below in State section.</p> <p>If an area of less than 5000 sq. ft. of wetland is altered, then the OOC also serves as the project's Section 401 Water Quality Certificate.</p> <p>If the CC has never dealt with issues related to wind turbines, they may need extra time for education.</p>



Community-owned wind turbine, at the high school in Hull, MA.

State

Regulation / Permit	Authority	Comments	More Information
MEPA Determination: Environmental Notification Form (ENF) or Expanded ENF*	Mass. Executive Office of Environmental Affairs (EOEA)	Must be filed if more than 25 acres of land will be directly altered or other thresholds met. A thorough treatment of this form is recommended.	www.state.ma.us/envir/mepa/index.htm 617-626-1020
MEPA Review: Environmental Impact Report (EIR)	Mass. Executive Office of Environmental Affairs (EOEA)	Unlikely to apply to community-scale projects. Based on the review of the ENF by the Secretary of Environmental Affairs. Automatically required if more than 50 acres of land will be directly altered or other thresholds met.	www.state.ma.us/envir/mepa/index.htm 617-626-1020
Notice of Intent (NOI)	Mass. Department of Environmental Protection (DEP)	Same form as with the local Conservation Commission.	All wetlands forms: http://www.mass.gov/dep/water/approvals/wwforms.htm 800-462-0444
Notice of Intent (NOI) (same as above)	Mass. Natural Heritage and Endangered Species Program	Same form as for the local CC and state DEP. Required if project falls within an "Estimated Habitat" of rare wildlife. Avoid disturbing threatened species.	http://www.mass.gov/dfwele/dfw/nhesp/nhenviro.htm 508-792-7270 ext. 200

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* The Secretary of Environmental Affairs recommends that proponents of a wind project include and distribute all relevant supporting supplemental information with the ENF form, even if the proponent does not formally choose an "Expanded ENF" option for MEPA review.

State, continued

Regulation / Permit	Authority	Comments	More Information
Conservation and Management Permit	Mass. Natural Heritage and Endangered Species Program	Required if there is any “take” of a state endangered species.	By town: www.state.ma.us/dfwele/dfw/nhESP/nhtown.htm 508-792-7270 ext. 200
General Access Permits	Mass. Dept. of Highways	Needed if road alterations to state roads are required.	617-973-7800
Wide Load Permits	Mass. Dept. of Highways	Possibly needed for transportation of turbine components, construction materials and equipment.	http://www.mhd.state.ma.us/default.asp?pgid=content/permits&sid=about 617-973-7800
Project Notification Form	Mass. Historical Commission	Describe the project and any impact on historic or archaeological properties.	www.state.ma.us/sec/mhc/mhcidx.htm 617-727-8470
Noise control policy (310 CMR 7.10)	Mass. Department of Environmental Protection (DEP)	The policy discourages a broad-band noise level in excess of 10 dB(A) above ambient, or pure tone noise.	www.airandnoise.com/MA310CMR710.html 800-462-0444
EOEA Article 97 Policy Mass General Law Chapter 61	Mass. Executive Office of Environmental Affairs (EOEA)	These govern use of protected land. Compliance with these pieces of legislation is not part of any specific permit, but is necessary for a successful ENF or EIR process. These may be applicable if the project requires access/easements over protected parkland or agricultural land.	www.state.ma.us/envir/mepa/fourthlevelpages/article97policy.htm www.state.ma.us/legis/laws/mgl/gl-61-toc.htm
Massachusetts Clean Waters Act: Section 401 Water Quality Certificate	Mass. Department of Environmental Protection (DEP)	If less than 5000 sq. ft. of wetland is altered, the OOC serves this purpose.	www.mass.gov/dep/bwp/iww/files/314cmr9.htm
NEPOOL Interconnection System Impact Study	ISO New England and the owner of transmission lines at point of interconnection	The impact of the new generating capacity on the existing grid is studied. The Facility Study then determines what, if any, additional electrical components are required for the transmission system.	ISO-New England’s information on new or modified interconnections
	Energy Facility Siting Board (EFSB)	The EFSB is primarily concerned with plants of 100 MW or more, but may have jurisdiction over a community wind project if a new transmission line is: - over 1 mile long, or - over 69 kilovolts	www.state.ma.us/dpu/siting/shandbook.htm EFSB: 617-305-3525
Review of Development of Regional Impact (DRI) . Town Referral & Application	Cape Cod Commission on Cape Cod Martha’s Vineyard Commission in Duke’s County	For Cape Cod and Martha’s Vineyard only. Most community wind projects will not require a DRI review. Applies if the project meets or exceeds any of the DRI thresholds . If applicable, precedes local permitting.	http://www.capecodcommission.org/regulatory/DRIbrochure.pdf Commission: 508-362-3828
Request for Airspace Review	Mass. Aeronautics Commission (MAC)	While not a permit per se, the MAC should be notified of projects over 200’ tall. This process is similar to the federal Part 77 review discussed below.	617-973-8881



Community-owned wind turbine, in Moorhead, MN

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Agencies with Jurisdiction, continued

Federal

Regulation / Permit	Authority	Comments	More Information
Notice of Proposed Construction or Alteration, 7640-1 “Part 77” review	Federal Aviation Administration (FAA)	This form is submitted for all structures at least 200’ above ground-level, or within a few miles of an airport (the distance depending on the type of airport). All wind turbines with tip-heights over 200’ will need lighting. MassPort (Massachusetts Port Authority) may also be involved if an airport is nearby.	http://forms.faa.gov/forms/faa7460-1.pdf FAA New England: (781) 238-7520
The following federal laws may also be applicable to community-scale wind projects under certain circumstances:			
Habitat Conservation Plan & Incidental Take Permit	US Fish and Wildlife Service	Needed if any federally listed endangered or threatened species will be harmed.	endangered.fws.gov/permits/index.html 603-223-2541
Migratory Bird Treaty	US Fish and Wildlife Service	Forbids the “take” of migratory birds.	603-223-2541
National Pollution Discharge Elimination System (NPDES): Storm Water Notice of Intent	US Environmental Protection Agency (EPA)	Needed if waste water is to be generated during construction, or ground water to be affected. Note that unlike most forms of electricity generation, wind turbines do not use water for power production.	cfpub.epa.gov/npdes/ 202-564-9545
Section 401 and Section 404 of the federal Clean Water Act	U.S Army Corps of Engineers	Most community-scale wind projects will not fall under this regulation. These would apply if fill were discharged into wetlands.	



For More Information

Mass. Executive Office of Environmental Affairs:
Mass. Environmental Protection Act: www.state.ma.us/envir/mepa/index.htm and Renewable Energy & Distributed Generation Guidebook http://www.mass.gov/Eoca/docs/doer/pub_info/guidebook.pdf

Examples of state permitting & precedents:

- Hoosac Wind Project Permitting: www.hoosacwind.com/ctc6.html

- Hoosac ENF certificate (EOEA # 13143), December 2003: <http://www.mass.gov/envir/mepa/downloads/13143enfpdfversion.pdf>
- Princeton Municipal Project ENF certificate (EOEA #13229), April 2004: www.state.ma.us/envir/mepa/pdffiles/certificates/13229pdfversion.pdf

For the on-line version of this Fact Sheet with the complete set of links, see www.ceere.org/rerl/about_wind/