

Attachment B-1

Public Wind Project Site Assessment Application

The Massachusetts Renewable Energy Trust (MRET) is pleased to invite applications for a Public Entity Wind Project Site Assessment from qualified Public Entities (as defined in the Commonwealth Wind Incentive Program: Community Scale solicitation) in the Commonwealth of Massachusetts. The Site Assessment provides qualified entities (see Eligible Applicants, below) with a preliminary evaluation of the potential for wind generation on one or more publicly-owned or developed sites. The goal of the Public Wind Project Site Assessment is to help Public Entities identify sites that might be appropriate for a wind project, to assess the advantages, disadvantages, and potential fatal flaws of each site, and to provide recommendations as to which sites could be worthy of further analysis.

The Public Wind Project Site Assessment evaluates the potential for small wind projects designed primarily to serve on-site load, as well as larger multi-turbine projects intended to export power. While higher wind speeds (typically in excess of 6.5 m/s at a height of 70 meters) lead to better project economics, a site with a slightly lower wind speed may be acceptable if there is a large behind-the-meter electric load (e.g., a wastewater treatment plant).

The Public Wind Project Site Assessment is not a prerequisite but is highly recommended as a task that should be performed prior to submitting an application for a Commonwealth Wind feasibility study. Most of the tasks performed in the site assessment analysis will need to be completed as part of a feasibility study application.

Public Wind Project Site Assessment

A Site Assessment, which is the first step in determining the potential for wind energy development, entails a professional site analysis conducted by technical experts retained by MRET. These experts will perform a desktop analysis and, if appropriate, site visit for the Public Entity.

MRET offers the Site Assessment free of charge to qualified entities. The Assessment includes:

- A desktop analysis to determine whether the entity owns sites of sufficient size and wind resource to warrant a detailed site assessment.
- A site visit to view sites that appear to be feasible based on the desktop analysis. Site visits typically last up to 3 hours, depending on the location and proximity of the sites. The technical consultant may suggest visiting sites other than those identified on the application. NOTE: A site visit will not be performed if the desktop analysis finds no publicly-owned sites that warrant a detailed site assessment.
- A Site Assessment Report, issued approximately 45 days after the site visit that summarizes information gained from the desktop analysis, the site visit, the Public Entity, and other existing public data sources. This report provides the entity with initial information about which public sites may be appropriate for a wind energy project, and at what scale. The report may also help guide the entity to appropriate MRET initiatives and other resources.
- MRET staff will review the completed Site Assessment Report at a meeting at our offices or by phone with public entity representatives to help them determine whether or not to further pursue a Wind Project, and if so, will help them consider what site and size.

Eligible Applicants/Projects

- Open to Massachusetts Public Entities, as defined in the Commonwealth Wind Incentive Program: Community Scale Solicitation, that pay into the Trust at the location to be considered for a Wind Project
- The lead Applicant must either be a Municipality or a State Agency/Authority. Applications for Public Entities other than state agencies or authorities must originate from the host municipality. For example, a public housing authority should not apply for a Site Assessment directly, but should be listed as a potential site within the host municipality
- The Site Assessment is intended for Public Entity-controlled property, unless a partnership exists between the entity and a private land owner. Consult MRET prior to submittal for more details if a privately owned site will be included in the application.
- Sites to be surveyed must have an estimated wind speed of 13.5 mph (6.0 m/s) or greater at a 70 meter height based on True Wind measurements.
- Wind speed information can be found at any of the following resources below.

MassGIS	http://maps.massgis.state.ma.us/wind/
MRET Community Wind Maps	http://masstech.org/renewableenergy/Community_Wind/atlas.htm
New England Wind Maps	Available on CD, per request to MRET.

- MRET is available to assist with the evaluation of wind resources for potential sites which entities are considering including in their application. Please contact MRET at commwind@masstech.org with the coordinates for each site being considered for assistance.
- The Public Entity must appoint a primary contact to coordinate and accompany the wind technical consultant on the site visit.

Instructions

- Read the description of the MRET Public Wind Project Site Assessment, which is available on the Commonwealth Wind Incentive Program website.
- Submit all required documentation with this application.
- Fill out the requested information on the following pages as completely as possible.
Note: Applications will not be examined until all sections are complete.
- **Do not submit confidential information as part of the application. MRET will treat all Public Wind Project Site Assessment applications as public documents.**
- Mail (1) hard copy and (1) electronic copy on a disk of the assessment application and all supporting documentation to MRET to:

Martha Broad
broad@masstech.org
 MTC- Innovation Center
 75 North Drive
 Westborough, MA 01581

Application Review

- MRET will review applications on a first-come, first-served basis to determine whether they are complete as well as meet eligibility criteria. Fully completed, eligible applications will be placed in a queue in the order received. Submission of a complete application does not assure that a Wind Project Site Assessment will be offered.
- MRET will make Site Assessment services available to eligible applicants on a first-come, first-served basis, subject to the receipt by MRET of a complete and conforming application, technical consultant and staff availability, and within the approved MRET budget.

**Public Wind Project Site Assessment Application
Cover Page**

Applicant's Contact Information

Site Assessment Applicants must identify a single project contact who is employed by the entity and authorized to speak on behalf of the entity on matters relating to the Public Wind Project Site Assessment. Additionally, the contact must be available to accompany the technical consultant on the site visit.

Name: Doug Lapp	Title: Asst Town Manager
Street Address: 130 Main Street	
Town, State, ZIP: Sandwich, MA 02563	
Phone Number(s): 508-888-5144	
E-mail Address: dlapp@townofsandwich.net	
Fax Number: 508-833-8045	

Application and Attachments

Please make sure the following documentation is provided. Please check the appropriate box once attached.

- Public Wind Project Site Assessment Application
- Aerial GIS Maps of Each Site
- Parcel Maps of Each Site (including surrounding parcels)
- By-law (if applicable)
- Other Documents (if applicable):

Application Approval

This application must be read and signed by the head of the governing body for the Public Entity (Town Council, Mayor, Chairman of the Board of Selectmen, etc.) By signing this application, the Public Entity accepts services offered from MRET through the Wind Project Site Assessment as described on the first page of the application. The applicant understands that the Site Assessment is intended, in part, to help Public Entities determine whether it is reasonable to pursue a Wind Project on publicly-owned property. The provision of an assessment is not an implied or express commitment by MRET to provide subsequent funding, services or other support for wind development under any MRET program. MRET shall not be liable to the applicant for the technical consultant's provision of, or failure to provide, the Public Wind Project Site Assessment.

Name: George H. Dunham	Title: Town Manager
Signature: <i>George H. Dunham</i>	Date: 5/6/10

Site Information

Use this space to identify potential sites for a public Wind Project. Potential sites must be owned and controlled by the Public Entity or a public board, authority or agency, unless meeting the requirements outlined above. In addition, a potential site should have open or clearable space sufficient to support the construction and operation of a tall piece of machinery, and should have strong winds and/or an on-site load.

Please provide all the information requested for each site. You may wish to consult with municipal planning boards, conservation commissions, historic commissions, etc. for information on each site. The table and the following site information request forms provide space for up to three sites; if you wish to propose more sites, please replicate the forms, as needed, fill out the required fields, and attach the forms to the application. The technical consultant may recommend additional sites for consideration based on its desktop analysis, or as a result of the site visit.

Public Entity Name: Town of Sandwich		Electric Utility: Cape Light Compact		
Entity Administrator: Greg Smith		Utility Contact: Maggie Downey		
		Site #1	Site #2	Site #3
Site Name	<i>Example: Wastewater Plant</i>	Golf course	Oak Ridge School	Pinkham Road Well Field
General Site Description and Current Land Use	<i>At the wastewater treatment plant. Large 1.5 acre open flat area to north of main building</i>	2 possible sites on public golf course	At the wastewater treatment plant for the school, site has school bldgs and water treatment bldg	Site has 3 wells, no other use
Street Address	<i>1980 Broad Street</i>	160 Mill Rd	60 Quaker Meetinghouse Rd	55 Pinkham Rd
Latitude & Longitude*	<i>42.6435° N 70.6286° W</i>	41.719918 N - 70.451853 W	41.718866 N - 70.455792 W	41.702256 N - 70.466410 W

*To identify the latitude and longitude coordinates in decimal degrees for each site, please use <http://earth.google.com/>.

Please check this box if the Public Entity has included additional site information request forms. Attach all documents at the end of the Entity's application.

Example Site - The following is an example of the type of information MRET is requesting. Please complete all fields as accurately as possible.

Site Name: Wastewater Treatment Plant

General Site Description and Current Land Use: At the waste water treatment plant. Large 1.5 acre open flat area to the north of the main building.

Latitude: 42.6435° N

Longitude: 70.6286° W

Elevation (feet): 153 feet

Total Size of Parcel (include parcel map and record card): 7 acres

Predicted Annual Wind Speed at 70 meters height: 6.5 m/s or 14.5 mph

Describe Vegetation on Site: 50% cleared, 20% brush, 30% trees

Buildings on Parcel; Annual Energy Consumption: Treatment facility; 5000 MWh

Portion of the Site that Can Be Cleared: NW Corner

Soil Type (ledge, rocky, soil, clay, etc.): Sandy soil

Road Access to Site: Paved road to parking lot. About 100 feet low brush to clearing.

Describe Surrounding Parcels (include maps for surrounding parcels with abutters names depicted): State forest to the south, residential area to the east. Closest building is landscape company on adjacent parcel to the north <600 feet.

Nearest Residence (feet): 750 feet

Proximity to Airports: 3.6 miles Hiawatha Regional Airport

Current Zoning (include copy of by-law, and a copy of any by-law that may govern wind development): R-1 Residential

Wetland Status on Parcel and Surrounding Parcels: None

Other Land Use Restrictions (conservation land, watershed, etc.): None

Designation by the Massachusetts Natural Heritage & Endangered Species Program as a Core Habitat or a Supporting Natural Landscape: Yes, the entire area is designated as Core Habitat.

Please fill out the following fields as completely as possible. If the Public Entity has more than three sites please replicate the forms, as needed, provide the required information, and attach the additional forms to your application.

Site Information Request Form #1

Site Name: Sandwich Hollows Golf Course

General Site Description and Current Land Use: Public golf course, large partly wooded 8+ acre parcel

Latitude: 41.719918145

Longitude: -70.451853786

Elevation (feet): 180

Total Size of Parcel (include parcel map and record card): 8+ acres, parcel 29-079

Predicted Annual Wind Speed at 70 meters height: 14.5 - 15.7 mph

Describe Vegetation on Site: 30% trees, 20% shrubs, 50% cleared

Buildings on Parcel; Annual Energy Consumption: One, approx. 200,000 kWh

Portion of the Site that Can Be Cleared: any

Soil Type (ledge, rocky, soil, clay, etc.): Sandy soil

Road Access to Site: Paved road to parking lot, then approx 250 ft of unpaved road, and 300 ft of clearing to site

Describe Surrounding Parcels (include maps for surrounding parcels with abutters names depicted): All abutters are town owned parcels which include a golf course and elementary school

Nearest Residence (feet): Approx 1700 ft

Proximity to Airports: Cape Cod Airport 7.5 mi; Hyannis Airport 12 mi.

Current Zoning (include copy of by-law, and a copy of any by-law that may govern wind development): RD-2

Wetland Status on Parcel and Surrounding Parcels: None

Other Land Use Restrictions (conservation land, watershed, etc.): None

Designation by the Massachusetts Natural Heritage & Endangered Species Program as a Core Habitat or a Supporting Natural Landscape: None

Site Information Request Form #2

Site Name: Oak Ridge School Water Treatment Plant

General Site Description and Current Land Use: Elementary school treatment plant

Latitude: 41 deg 43 min 8 sec

Longitude: -70 deg 27 min 22 sec

Elevation (feet): 180

Total Size of Parcel (include parcel map and record card): 71.52 acres, parcel 28-121-001

Predicted Annual Wind Speed at 70 meters height: 15.7 – 16.8 mph

Describe Vegetation on Site: 50% cleared, 30% brush, 20% trees

Buildings on Parcel; Annual Energy Consumption: 3 buildings, including Elementary school and water treatment plant, school uses approx 600,000 kWh annually

Portion of the Site that Can Be Cleared: Any

Soil Type (ledge, rocky, soil, clay, etc.): Sandy soil

Road Access to Site: Paved to parking lot

Describe Surrounding Parcels (include maps for surrounding parcels with abutters names depicted): Golf course to the ENE, residential area to the SW

Nearest Residence (feet): Approx 650 ft

Proximity to Airports: Cape Cod Airport 7.5 mi; Hyannis Airport 12 mi.

Current Zoning (include copy of by-law, and a copy of any by-law that may govern wind development): RD-2

Wetland Status on Parcel and Surrounding Parcels: None

Other Land Use Restrictions (conservation land, watershed, etc.): None

Designation by the Massachusetts Natural Heritage & Endangered Species Program as a Core Habitat or a Supporting Natural Landscape: None

Site Information Request Form #3

Site Name: Sandwich Water District Pinkham Road

General Site Description and Current Land Use: Well field

Latitude: 41 deg 42 min 5 sec

Longitude: -70 deg 28 min 19 sec

Elevation (feet): Approx 140 ft

Total Size of Parcel (include parcel map and record card): 41.51 acres, with another town-owned parcel surrounding this one for a total of 150 acres

Predicted Annual Wind Speed at 70 meters height: 14.5 – 15.7 mph

Describe Vegetation on Site: 30% trees, 70% brush

Buildings on Parcel; Annual Energy Consumption: 3 buildings, 275,000 to 350,000 kWh per year

Portion of the Site that Can Be Cleared: Any

Soil Type (ledge, rocky, soil, clay, etc.): Sandy soil

Road Access to Site: Unpaved road to site

Describe Surrounding Parcels (include maps for surrounding parcels with abutters names depicted): The parcel is surrounded on most of 3 sides by another town owned parcel (23-472-) of 115 acres. The fourth side is a YMCA campground, and a few houses.

Nearest Residence (feet): Min 500 ft

Proximity to Airports: Cape Cod Airport 7.5 mi; Hyannis Airport 12 mi.

Current Zoning (include copy of by-law, and a copy of any by-law that may govern wind development): R-2

Wetland Status on Parcel and Surrounding Parcels: None

Other Land Use Restrictions (conservation land, watershed, etc.): None

Designation by the Massachusetts Natural Heritage & Endangered Species Program as a Core Habitat or a Supporting Natural Landscape: None

Wind Project Interest

To the extent possible, please identify the community's wind energy development goals and the type of project(s) it envisions. This information will help the technical consultant assess each site's potential for development of a wind project consistent with the community's goals and interests.

Why is the Entity interested in wind power?	To reduce on site electrical costs
<p>What kind of a project does the Entity envision?</p> <ul style="list-style-type: none"> - <i>Power used onsite or sold into the electric grid?</i> - <i>One or multiple turbines?</i> - <i>250 kW(\leq180 ft, electricity for about 80 households), 600kW(\geq240 ft, about 200 households), 1.5 MW (\geq350 ft, about 500 households).</i> 	Primarily power to be used on-site, with one turbine at each site, if possible
<p>Are you considering public ownership (e.g., water authority owns and operates project), or private ownership (e.g., a third party owns and operates the project on leased town land)?</p> <p>If considering public ownership, describe possible financing options.</p>	Public
Describe public input/outreach relating to wind energy to date.	
Does the host municipality have a by-law governing wind energy projects? If yes, please attach copy.	No



Potential Wind Energy Sites



TOWN OF SANDWICH
ENGINEERING DEPT.

Sandwich Hollows
Golf Course



70°27'30"W

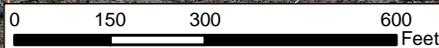
41°43'20"N

70°27'20"W

70°27'10"W

41°43'0"N

Oak Ridge School
Wastewater Treatment Facility



TOWN OF SANDWICH
ENGINEERING DEPT.
Oak Ridge School
Wastewater Treatment Facility

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Prepared: April 30, 2010



TOWN OF SANDWICH
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Pinkham Road
Pumping Station

File: comm_wind_app.mxd

Prepared: April 30, 2010