



**MassCEC's Step-By-Step Guide To The  
Commonwealth Wind Incentive Program:  
Micro Scale Wind**

**August 2010**

Revised November 2011

## Table of Contents

**Step 1:** Determine Eligibility

**Step 2:** Is Small Wind Right For You?

**Step 3:** Engage a Qualified Installer

**Step 4:** Submit Application for Rebate

**Step 5:** How Do I Receive My Rebate Payments?

---

### Step 1: Determine Eligibility

The Commonwealth Wind: Micro Wind Initiative provides rebates through a non-competitive application process for the installation of qualified turbines up to 99 kW by professional, licensed contractors at residential, commercial, institutional, and public facilities. To be eligible for a rebate, the projects must be hosted by customers of a Massachusetts investor-owned electric distribution utility or Municipal Light Plant (MLP) Department that pays into the Renewable Energy Trust Fund. The following are Massachusetts investor-owned electric utilities:

- Unitil
- National Grid
- NSTAR Electric
- Western Massachusetts Electric

If you live in a MLP territory, please visit the [MLP Page](#) to see if you are currently eligible for a rebate or for more information on how your MLP can join the Massachusetts Renewable Energy Trust Fund.

### Step 2: Is Small Wind Right For You?

Small wind systems are only cost-effective if properly sited and in a windy location. Not all properties or areas of Massachusetts are right for a small wind system. If properly designed and sited, however, a small wind system can be a productive and economically-viable renewable energy technology.

### What is a Micro Wind project?

MassCEC defines an eligible Micro Wind project as a grid-connected wind project with a power capacity of up to 99 kW.<sup>1</sup> Please see the [Micro Wind Solicitation](#) for the full list of requirements to qualify for a rebate.

### Have you considered energy saving options?

For residential customers, contact MassSAVE for more information on how to implement energy efficiency measures. For all other customers, contact your utility directly for energy efficiency tips. See below for utility links:

- [Unitil](#)
- [National Grid](#)
- [NSTAR Electric](#)
- [Western Massachusetts Electric](#)
- [Cape Light Compact](#)

### Small Wind Considerations

Through the Micro Wind Initiative, MassCEC has made more than 80 awards for the installation of small wind projects totaling over 600 kW of capacity. The *Small Wind Progress Briefing* from November 2008, located on the [Micro Wind Resources Page](#), outlines the initial production results for twenty-one of these early systems.

On average, the systems analyzed were found to be producing approximately 30 percent of what was estimated. Because of this system underperformance, MassCEC recommends that you review the Briefing before pursuing a Micro Wind project at your home or building.

Since the Briefing was issued, MassCEC's Micro Wind team has initiated several significant programmatic changes to encourage more accurate assessments of predicted performance and a higher overall performance of small wind systems. MassCEC developed impartial wind and energy assessment tools, mandates that turbine manufacturers meet rigorous industry standards, requires minimum project energy performance, and provides a hybrid rebate that incorporates and rewards actual system performance.

### Project Due Diligence

Before committing to a small wind project, MassCEC strongly recommends a project host or owner investigate several issues that are key to a good small wind project.

---

<sup>1</sup> Minimum threshold for eligible power capacity is defined as the power production of the turbine at a wind speed of 11 m/s. Maximum threshold for eligible power capacity is defined as the manufacturer stated nameplate capacity of the turbine.

Issues to consider are:

### **1. What is the wind resource at your location?**

MassCEC provides tools for applicants to assess average wind speeds at project sites. To learn about the wind resource in your community, please visit the state's [Wind Energy Screening Tool](#).<sup>2</sup> The screening tool is a first step to understanding the estimated wind speed at specific sites.<sup>3</sup>

For a more thorough analysis or for a Micro Wind application, use of the MassCEC Commonwealth Wind Evaluation and Siting Tool ([CWEST](#)) is required. This analytical tool helps to refine the wind speed estimate for particular sites by taking into account the height of surrounding trees and nearby obstacles to estimate the wind speed above actual ground level.

MassCEC recommends that a small wind project have a minimum average annual wind speed of 4.5 m/s at hub height.

### **2. Do you have sufficient open land to construct a small wind turbine?**

The amount of open space required for a small wind turbine depends on the size of technology chosen, local ordinances, and the specific needs for the project site. Available space requirements should be considered in relation to the construction process, distance from buildings and property lines, and distance to neighbors.

### **3. Which turbine is right for you?**

Many different small wind technologies are on the market, and not every turbine is right for every site. Turbines vary greatly based on power capacity, available hub height, and cost. MassCEC provides rebates for technologies that have been tested in accordance with industry standards for reliability, safety, and performance. Eligible technologies can be found through our approved small wind turbine lists:

- [The NYSERDA Small Wind List](#)
- [The Small Wind Certification Council List](#)

---

<sup>2</sup> If you are interested in receiving a wind map for your community, please contact the Micro Wind team at [commonwealthwind@masscec.com](mailto:commonwealthwind@masscec.com).

<sup>3</sup> Available wind maps estimate wind speeds above effective ground level. For example, for a site that is densely covered with 15 meter tall trees the effective ground level would be roughly 2/3 of the tree height or 10 meters above ground. Thus, the 70 meter map actually gives the wind speed for 80 meters above ground at this location. The Wind Energy Screening Tool adjusts these map wind speeds to estimate values at 70 meter height above actual ground level.

#### 4. Does the cost and potential payback fit your budget?

Although the Micro Wind rebate will cover some of the system costs, you must still make an initial investment. The payback of a small wind installation varies greatly from one project to another depending on a number of factors, including power capacity, site wind speeds, costs, incentives, and electricity prices. Quantifying the financial benefits of each project will often include some uncertainties and risks. Please refer to our Micro Wind Information Resources section below to learn more about project economics.

### Step 3: Engage a Qualified Installer

Once you have decided to further pursue a wind project for your site, MassCEC requires that a project host work with a qualified installer to further evaluate the viability of the project. Installers can help you with a more detailed site and financial assessment. In addition, they will be responsible for providing you with turnkey service and installation. You are responsible for performing your own due diligence with regard to the experience and qualifications of a potential contractor and for making sure that they meet the Micro Wind requirements.

For information on wind installers that have previously worked on small wind projects, please refer to the Wind Consultant Database which is located on the [Micro-Wind Resources Page](#).<sup>4</sup> MassCEC cannot and does not endorse or recommend any specific contractors.

A qualified installer should be able to work with the project host to evaluate the site's suitability, identify appropriate and eligible small wind turbines, and provide an assessment of energy production and project payback. If the host decides to move forward with the project, the installer should work with the project host on preparing an application for a rebate from the Micro Wind Initiative.

MassCEC requires rebate applicants to include a copy of the installer turnkey contract. This contract should identify all responsibilities of the installer, payment amounts and schedules, and the designee of the MassCEC rebate. MassCEC can provide the rebate to the project owner or installer, as designated in the turnkey contract and MassCEC application.

MassCEC strongly recommends that applicants review and consider the Micro Wind program requirements and payment schedule when composing and executing a turnkey service and installation agreement with the installer. Additionally, MassCEC strongly encourages that applicants plan on making the final payment to the installer only when all MassCEC Micro Wind rebate requirements are met.

---

<sup>4</sup> Disclaimer: MassCEC has not investigated, and expressly disclaims any duty to investigate, any company, product, service, process, procedure, design, or the like which may be presented on the aforementioned web sites and databases. The presentation of these links does not constitute endorsement, warranty, or guaranty by MassCEC of any company, product, service, process, procedure, design, or the like. The entire risk of use of any information presented is assumed by the user.

## Step 4: Submit Application for Rebate

Once you have selected an installer, they will be responsible for preparing and submitting your rebate application. You will need to assist them by providing some supporting materials, reviewing application materials, and signing the application.

### Standard Rebate Structure

The available rebate is comprised of a hybrid rebate structure, with part of the rebate based on rated power capacity (at 11 m/s wind speeds) and part based on a MassCEC-verified estimate of annual energy production. The rebate is paid out in two parts:

1. **Installation Payment:** Following successful installation, 90% of the rebate is paid to the Grantee.
2. **Reporting Payment:** Following 12 months of reporting electricity production to MassCEC, the remaining 10% of the rebate is paid to the Grantee. At this time, the Grantee may be eligible for a bonus payment if the first year's electricity production exceeded estimates.

Public entities are eligible to receive an additional rebate adder of 30%. The total rebate is capped at:

- \$4.00/watt and \$100,000 per project for non-public entities, and
- \$5.20/watt and \$130,000 per project for public entities.

Please see the MassCEC Micro Wind Rebate Calculator for incentive amounts, found on the [Micro-Wind Resources Page](#).

### Preparing and Submitting an Application

MassCEC expects applications to be submitted by installers with the assistance of the project host and/or applicant. Applicants should thoroughly review all of the Initiative Solicitation documents which are located at [www.masscec.com/microwind](http://www.masscec.com/microwind). The Micro Wind rebate application (Attachment B) must be submitted along with all required documentation in hard copy to the Micro Wind team. MassCEC will reject applications that do not meet all requirements stated in the solicitation.

Applications are processed on a rolling first-come, first-served basis. Projects that meet the requirements of the Micro Wind Initiative will receive a project rebate, granted that sufficient Initiative budget remains.

If your application is approved, MassCEC will send you an Award Packet which includes the amount for the first rebate payment, the amount for the second rebate payment, and the project completion deadline. The Award Packet also includes a Project Completion Form and information on the Production Tracking System. Once you have received the Award Letter and execute the Participant Agreement, notify your installer to initiate installation of the renewable energy project and work with the utility to have the project interconnected to the grid. Please note that MassCEC cannot reimburse for any costs incurred prior to execution of the Participant Agreement.



For any questions during the process of preparing an application, please contact the Micro Wind team at [microwind@masscec.com](mailto:microwind@masscec.com) or at 617-315-9355.

## Step 5: How Do I Receive My Rebate Payments?

Once the project has been installed and interconnected, the installer will work with you to submit the Project Completion Form and back-up documentation, including

- Proof of interconnection approval from the utility
- Certification of inspection and approval by local authorities
- Copies of invoices and payments

Once the Project Completion Form is submitted with all required documents, MassCEC will schedule an inspection by a MassCEC-designated agent. Upon completion of the inspection and resolution of any outstanding issues, MassCEC will process the first rebate payment to the rebate recipient.

MassCEC rebates are paid out to either the project owner or the installer. For payments to the project owner, MassCEC will only reimburse for costs already incurred between the grantee and the installer. MassCEC strongly recommends that applicants consider the MassCEC payment schedule when contracting with the installer and that final payment not be made until all MassCEC Micro Wind rebate requirements are met. Under no circumstances can MassCEC provide a rebate before equivalent costs are incurred.

For applicants who designate the installer as the rebate recipient, MassCEC will provide the rebate payment directly to the installer once all project completion requirements are met. MassCEC requires submission of detailed invoices of work completed.

Please note that the rebate recipient must be designated when applying to MassCEC and that the designee must be stated in the installer turnkey contract. Please note that MassCEC also cannot reimburse for any costs incurred before execution of the Participant Agreement.

The final rebate payment will be paid after 12 months of monthly reporting of the electricity production of your system to the Production Tracking System.

For questions, please contact the Micro Wind program at [microwind@masscec.com](mailto:microwind@masscec.com) or at 617-315-9355.