CESA Webinar: State Policies and Programs to Advance Distributed Wind Projects

Carter Wall, Massachusetts Clean Energy Center
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Overview

• MassCEC Community-Scale Wind Program and Recent Projects
• Project Trends
• Look back – lessons learned
• Look ahead
How do we define “Community Wind”?  

- Small scale – onsite offtake or net metering  
- Non-professional project sponsor/developer (mostly only project)  
- Mostly self-financed
Where is the wind in MA?

The annual wind power estimates for this map were produced by TrueWind Solutions using their Mesomap system and historical weather data. This work was commissioned by the Massachusetts Technology Collaborative, in conjunction with the Connecticut Clean Energy Fund and Northeast Utilities, and the results have been validated by NREL.
Massachusetts Wind Energy Capacity

MA Installed and Projected Wind Capacity

- **Pipeline**
- **Installed**

Year of Installation vs. Capacity (kW):

- 2001: Pipeline 5, Installed 0
- 2005: Pipeline 5, Installed 0
- 2006: Pipeline 2, Installed 2
- 2007: Pipeline 2, Installed 2
- 2008: Pipeline 2, Installed 2
- 2009: Pipeline 14, Installed 14
- 2010: Pipeline 16, Installed 16
Mark Richey Woodworking
Newburyport

- 600-kW turbine
- recipient of a $474,340 award
- into operation March 2009
- 292-foot wind turbine will generate almost all of the electricity needed to power the operations of Mark Richey Woodworking’s 130,000 square foot facility.
Holy Name Central Catholic HS
Worcester

- 600-kW turbine
- recipient of a $575,000 award
- completed September 2008
Hyannis Country Garden

• 100-kW turbine
• installed in January 2009
• family-owned garden center on Cape Cod founded in 1965
• awarded $225,000 in total funding from MassCEC
• Turbine expected to meet 92% energy needs at the garden center
McGlynn Middle School
Medford

- 100-kW turbine
- awarded City of Medford $250,000
- in operation January 2009
Williams Stone Company

Otis

- 600-kW turbine
- awarded $500,000
- in operation May 2009
Nature’s Classroom
Charlton

- 100-kW turbine
- environmental education center awarded $285,000
- in operation March 2009
Forbes Park
Chelsea

- 600-kW turbine
- a loft community on the waterfront
- completed with $500,000 in support from MassCEC
Bartlett’s Ocean View Farm
Nantucket

- 250-kW wind turbine
- Nantucket Island's oldest & largest family owned farm
- $550,000 in support from MassCEC
- completed in March 2009
Princeton Municipal Light
Princeton

- two 1.5 MW wind turbines
- $85,000 loan from the Trust has been repaid
- completed in November 2009
Falmouth Waste Water Treatment Plant
Falmouth

- 1.65 MW wind turbine
- $307,000 in grant support from the Trust
- plus $1.9 million Trust REC purchase commitment
- In operation March 2010
MWRA Waste Water Treatment Plant
Deer Island, Boston

- two 600 kW wind turbines
- $459,000 in support from the Trust
- completed in August 2009
Mt. Saint Mary’s School
Wrentham, MA

- 100 kw
- $225,000 in support from MassCEC
- In operation January 2010
# Feasibility Study Funding Levels

<table>
<thead>
<tr>
<th>Nameplate Capacity</th>
<th>Non-Public Entity</th>
<th>Public Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-599kW</td>
<td>$20,000</td>
<td>$30,000</td>
</tr>
<tr>
<td>600kW+</td>
<td>$40,000</td>
<td>$50,000</td>
</tr>
<tr>
<td>Basic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Planning Adder</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Wind Monitoring Equipment Adder</td>
<td>$10,000</td>
<td>$20,000</td>
</tr>
</tbody>
</table>

**Notes:**
- Non-Public Entity:
  - 100-599kW: $20,000
  - 600kW+: $40,000
- Public Entity:
  - 100-599kW: $30,000
  - 600kW+: $50,000
- Business Planning Adder: $15,000
- Wind Monitoring Equipment Adder: $20,000

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Project Trends

- Technology
- Developers
- Financing
Look back

Lessons learned

• Study quality and standards
• Client development and expertise
• Incenting production
• Getting subsidy right
• Dealing with project delays and project risk
Look ahead

• MA Project Pipeline
• Regulatory: Net metering, siting reform, federal RES, transmission policy
• Markets: credit market, fossil fuel prices and power demand, tax equity market
Thank You!

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