Data Update for Thompson Island, Boston Harbor, MA
April 2008

Prepared for
Massachusetts Technology Collaborative
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Monthly Data Summary for April 2008
This update summarizes the monthly data results for the Thompson Island monitoring site in Boston Harbor, MA, at 42° 18’ 56” N, 71° 0’ 40” W (NAD 83). More information on the sensors and site can be found at http://www.ceere.org/rerl/rerl_resourcedata.html.

<table>
<thead>
<tr>
<th>Height</th>
<th>Wind Speed</th>
<th>Turbulence Intensity</th>
<th>Prevailing Wind Direction</th>
<th>Power Law Shear Exponent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean [m/s]</td>
<td>Max [m/s]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 m</td>
<td>*5.58</td>
<td>*16.8</td>
<td>*0.16</td>
<td>*24.76</td>
</tr>
<tr>
<td>25 m</td>
<td>*5.36</td>
<td>*16.31</td>
<td>*0.17</td>
<td>*14.69</td>
</tr>
</tbody>
</table>

*These summaries are based on data from only about 59% of the reporting period.

The data can be found at the Renewable Energy Research Laboratory web site: www.ceere.org/rerl/rerl_resourcedata.html. It is important to note that summary data are only reported when the monthly net data recovery (see below) is at least 90%. This requirement ensures that the values reported here are comparable with values from other months.

Additional information about interpreting the data presented in this report can be found in the Fact Sheet, "Interpreting Your Wind Resource Data," produced by RERL and the Massachusetts Technology Collaborative (MTC). This document is found through the RERL website: www.ceere.org/rerl/about_wind/RERL_Fact_Sheet_6_Wind_resource_interpretation.pdf.

Data Recovery
All raw wind data are subjected to a series of tests and filters to identify data that are faulty or corrupted. The gross percentage of data recovered (ratio of the number of raw data points received to data points expected) and net data recovered (ratio of raw data
data points which passed all QA control tests to data points expected) are shown below.

<table>
<thead>
<tr>
<th>Gross Data Recovered [%]</th>
<th>59.454</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Data Recovered [%]</td>
<td>44.437</td>
</tr>
</tbody>
</table>

**Maintenance Issues and Changes to Site Configuration**
The following maintenance/equipment problems occurred during April 2008, and the following corrective action was taken:

- The secondary Anemometer at each height stopped reporting during the tower raising on November 2\(^{\text{nd}}\) probably due to damage to the sensor cables

- Beginning in April, there was a loss of communication with the data logger resulting in a loss of data. These missing data may be recoverable physically. There will be an addendum to this report if and when this happens.

**Monthly Data Time Series**
Seen below is a graph of wind speed at Thompson Island for the month of April 2008, at the highest anemometer height of 40 m.