

Renewable Energy Research Laboratory

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Data Update for Mt. Tom, Holyoke, MA August 2007

Prepared for Massachusetts Technology Collaborative 75 North Drive, Westborough, MA 01581

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Monthly Data Summary for August 2007

This update summarizes the monthly data results for the Mt. Tom monitoring site in Holyoke, MA, at 42° 14′ 59.2″ N, 72° 38′ 42.2″ W (NAD83). More information on the sensors and site, including the data, can be found at http://www.ceere.org/rerl/rerl_resourcedata.html.

| | Wind Speed | | | Prevailing | Power |
|--------|---------------|--------------|-------------------------|-------------------|-----------------------|
| Height | Mean [m/s] | Max [m/s] | Turbulence Intensity | Wind Direction | Law Shear Exponent |
| 24 m | 4.14 | 16.73 | 0.25 | - | 0.39 |
| 37 m | 4.90 | 21.78 | 0.2 | 112.5° ESE | 0.39 |

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 points which passed all QA control tests to data points expected) are shown below.

| Gross Data Recovered [%] | 85.884 |
|--------------------------|--------|
| Net Data Recovered [%] | 77.465 |

The gross data recovered is less than 100% because lightning damaged the data logger and landline connection at the end of July and due to malfunctioning vane sensor at a height of 24m. The net data recovery percentage is less because of few hours of fault for the anemometers and due to a malfunctioning external temperature sensor.

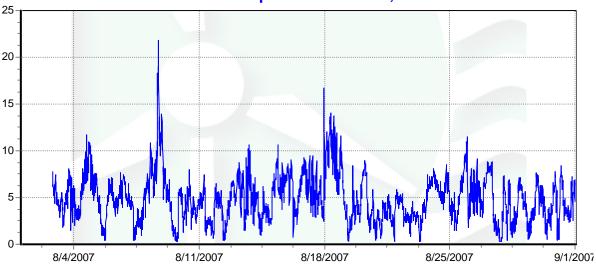
Maintenance Issues and Changes to Site Configuration

A new data logger was installed on August 2.

Monthly Data Time Series

Seen below is a graph of wind speed at Mt. Tom for the month of August 2007, at the anemometer height of 37 m.





Plot by DQMS3 - dqms @dqms.com