



Wind Power Classes

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Cartographer: Ryan Kosc, 13th of April 2009

Legend

Vtrans Road Centerlines Wind Power at 50 meters (164ft)

Function Class	NREL Class, Power Density (W/m ²)
Principal Arterial	Class 1, 0-200
Minor Arterial	Class 2, 200-300
Collector	Class 3, 300-400
County Boundary	Class 4, 400-500
Town Boundary	Class 5, 500-600
	Class 6, 600-800
	Class 7, 800+



The Massachusetts Technology Collaborative, in conjunction with the Connecticut Clean Energy Fund and Northeast Utilities, commissioned and funded the preparation of Wind Energy Resource Maps for New England.

The Wind Energy Resource Atlas of the United States estimates the resource in terms of wind power classes ranging from class 1 (the lowest) to class 7 (the highest). Each class represents a range of mean wind power density (in units of W/m²) or equivalent mean wind speed at the specified height(s) above ground. Areas designated class 3 or greater are suitable for most wind turbine applications, whereas class 2 areas are marginal. Class 1 areas are generally not suitable, although a few locations (e.g., exposed hilltops not shown on the maps) with adequate wind resource for wind turbine applications may exist in some class 1 areas.

National Renewable Energy Laboratory (NREL) Wind Power Classes can be viewed at <http://med.nrel.gov/wind/pubs/atlas/tables/A-8.html>

Wind Energy Resource Atlas of the United States can be viewed at http://med.nrel.gov/wind/pubs/atlas/atlas_index.html

Generally speaking, commercial wind power projects using large turbines require a mean power of at least 400 W/m² (NREL class 4 or higher).

Lake Champlain's shoreline is blue in order to display wind power classes over VT's largest lake.