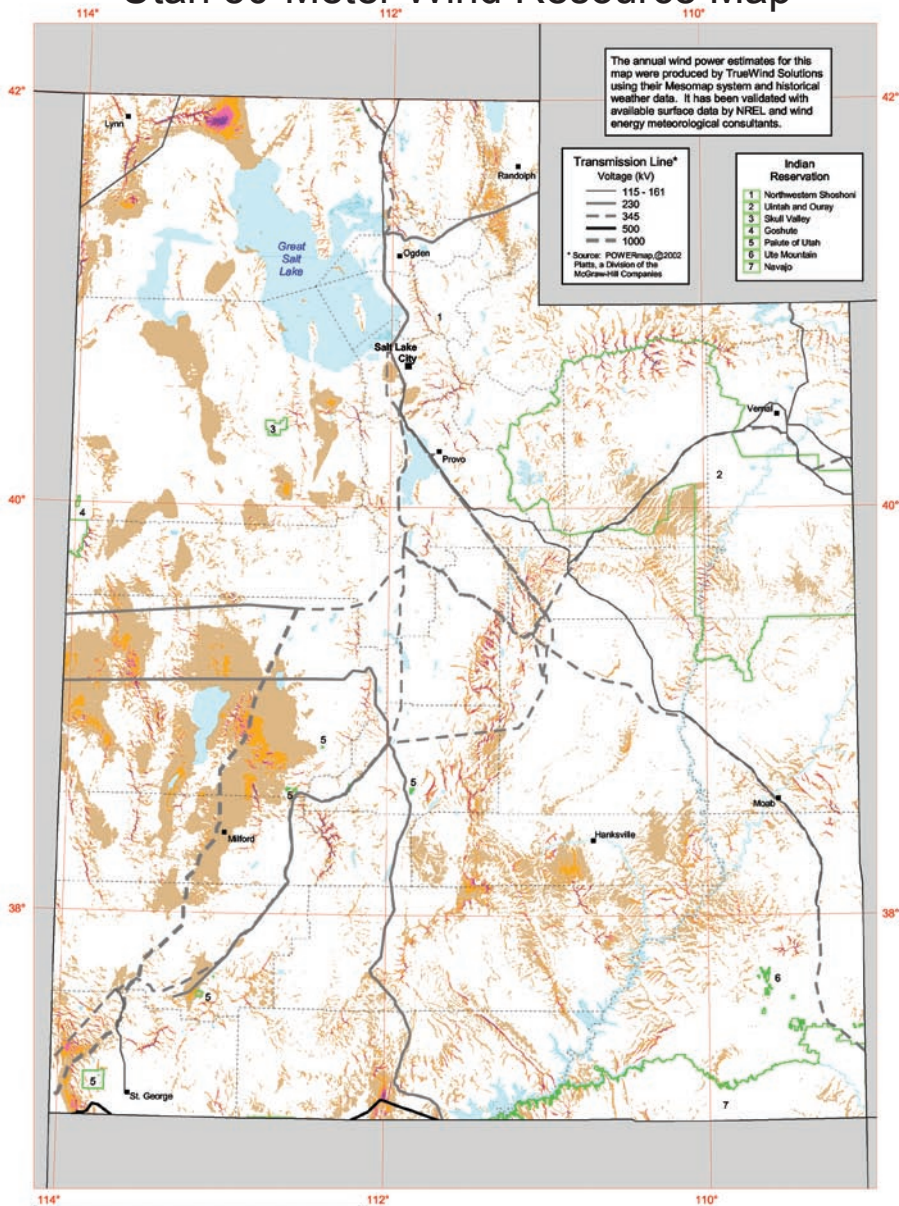


Utah 50-Meter Wind Resource Map



The annual wind power estimates for this map were produced by TrueWind Solutions using their Mesomap system and historical weather data. It has been validated with available surface data by NREL and wind energy meteorological consultants.

**Transmission Line*
Voltage (kV)**

- 115 - 161
- - - 230
- - - 345
- - - 500
- 1000

* Source: POWERLINE ©2002 Platt, a Division of the McGraw-Hill Companies

Indian Reservation

- 1 Northwestern Shoshoni
- 2 Uintah and Ouray
- 3 Skull Valley
- 4 Goshute
- 5 Plateau of Utah
- 6 Lake Mountain
- 7 Navajo

Wind Power Classification

Wind Power Class	Resource Potential	Wind Power Density at 50 m W/m ²	Wind Speed ^a at 50 m m/s	Wind Speed ^a at 50 m mph
1	Poor	0 - 200	0.0 - 5.6	0.0 - 12.5
2	Marginal	200 - 300	5.6 - 6.4	12.5 - 14.3
3	Fair	300 - 400	6.4 - 7.1	14.3 - 15.9
4	Good	400 - 500	7.1 - 7.8	15.9 - 17.0
5	Excellent	500 - 600	7.8 - 8.1	17.0 - 18.1
6	Outstanding	600 - 800	8.1 - 8.9	18.1 - 19.9
7	Superb	> 800	> 8.9	> 19.9

^a Wind speeds are based on a Weibull k of 1.8 at 1500 m elevation.



U.S. Department of Energy
National Renewable Energy Laboratory

This resource map shows wind speed estimates at 50 meters above the ground and depicts the resource that could be used for utility-scale wind development. As a renewable resource, wind is classified according to wind power classes, which are based on typical wind speeds. These classes range from Class 1 (the lowest) to Class 7 (the highest). In general, at 50 meters, wind power Class 4 or higher can be useful for generating wind power with large turbines. Class 4 and above are considered good resources. Particular locations in the Class 3 areas could have higher wind power class values at 80 meters than shown on the 50 meter map because of possible high wind shear. Given the advances in technology, a number of locations in the Class 3 areas may be suitable for utility-scale wind development.

Wind Energy Information Sources

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<http://geology.utah.gov/sep/wind/uwvwg/index.htm>

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