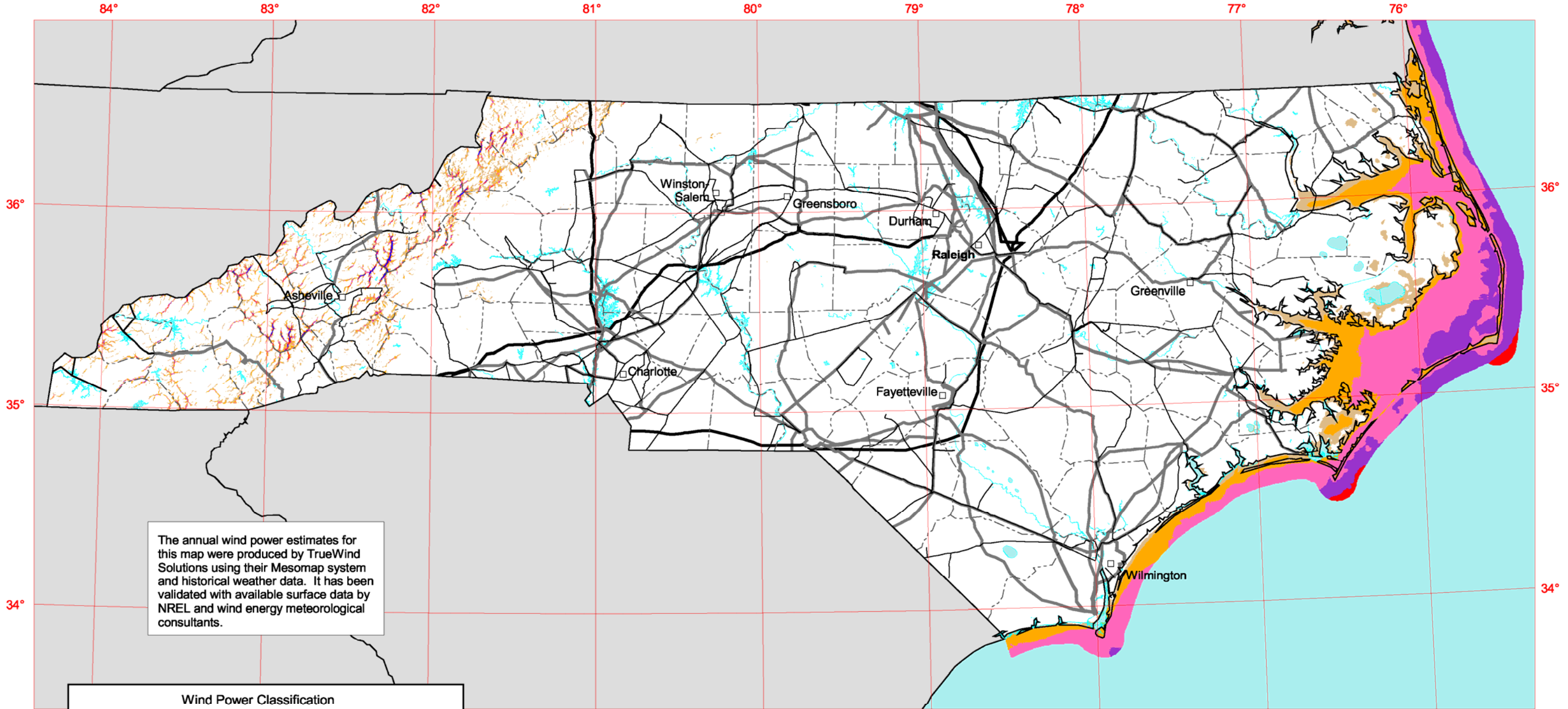


North Carolina - 50 m Wind Resource Map



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.

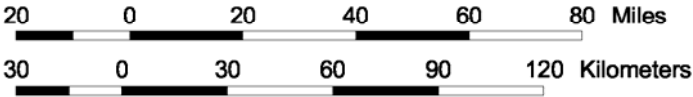
Wind Power Classification				
Wind Power Class	Resource Potential	Wind Power Density at 50 m W/m ²	Wind Speed ^a at 50 m m/s	Wind Speed ^a at 50 m mph
1	Poor	0 - 200	0.0 - 5.6	0.0 - 12.5
2	Marginal	200 - 300	5.6 - 6.4	12.5 - 14.3
3	Fair	300 - 400	6.4 - 7.0	14.3 - 15.7
4	Good	400 - 500	7.0 - 7.5	15.7 - 16.8
5	Excellent	500 - 600	7.5 - 8.0	16.8 - 17.9
6	Outstanding	600 - 800	8.0 - 8.8	17.9 - 19.7
7	Superb	> 800	> 8.8	> 19.7

^a Wind speeds are based on a Weibull k value of 2.0

Transmission Line*
Voltage (kV)

- 115 - 138
- 161
- 230
- 500

* Source: POWERmap, ©2002
Platts, a Division of the McGraw-Hill Companies



U.S. Department of Energy
National Renewable Energy Laboratory



North Carolina Wind Electric Potential
(Installed Capacity)

	Total before exclusions	Developable
Class 3 +	6,840 MW	1,610 MW
Class 4 +	1,960 MW	500 MW
Class 5 +	800 MW	230 MW
Class 6 +	460 MW	120 MW

76% of the raw Class 3+ lands excluded
74% of the raw Class 4+ lands excluded

Areas are excluded from the developable wind potential in the following categories:

- 1) Potentially sensitive environmental lands:
- National Park Service and Fish and Wildlife Service are completely excluded

– Wildlife, wilderness, recreation areas, and other specially designated areas on federal land are completely excluded (predominantly Forest Service and BLM lands)

– Some state and private environmental lands where data was available

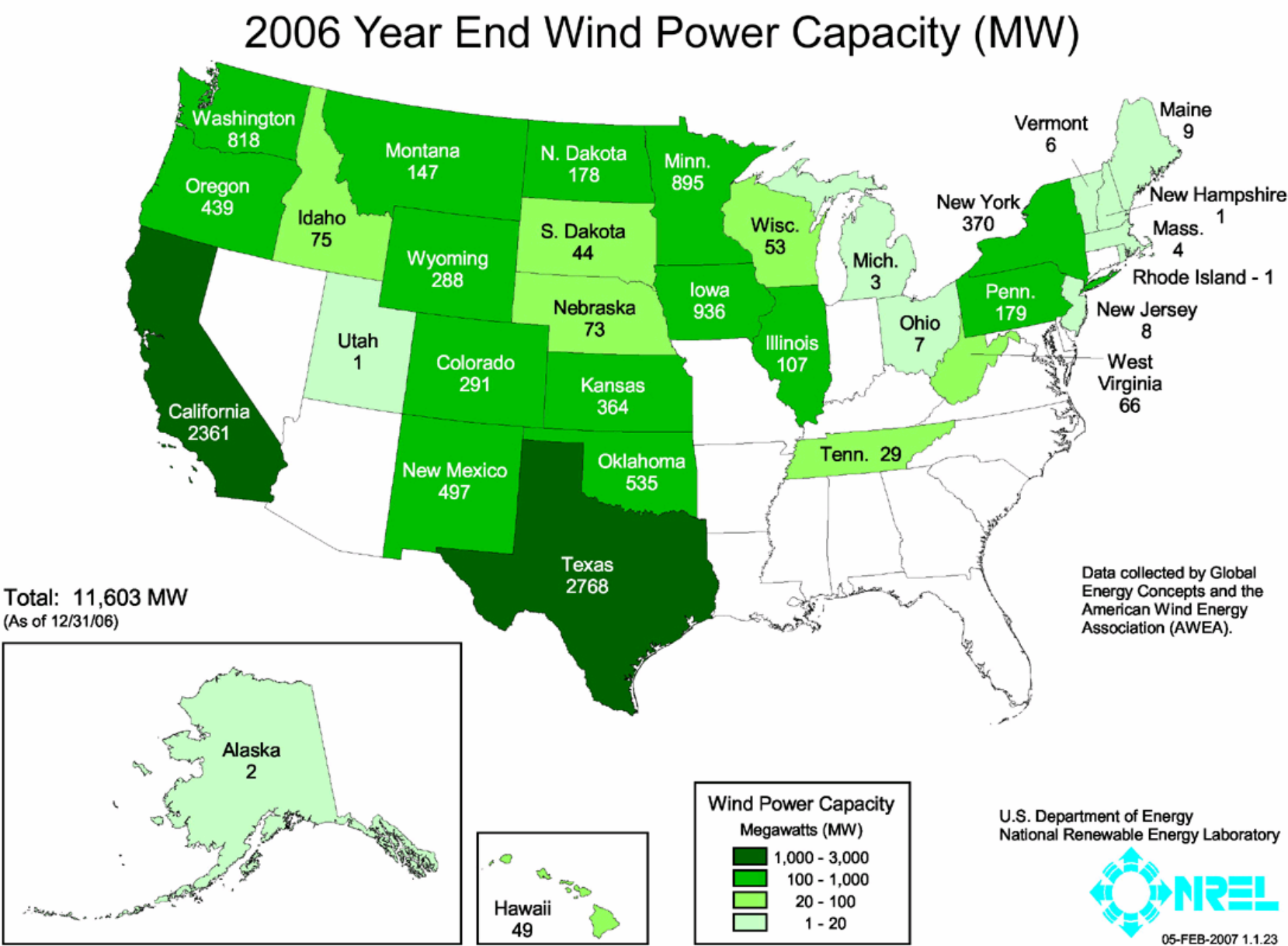
– Half of the remaining U.S. Forest Service and Department of Defense lands were excluded to represent current dedicated use of land
- 2) Potentially incompatible land use:
- Urban areas, airports, wetlands and water bodies were completely excluded

– Half of non-ridge crest forested areas were excluded
- 3) Other factors:
- Slopes greater than 20% were completely excluded

– A 3 kilometer area surrounding environmental and land use categories that were completely excluded (except water bodies) was also eliminated

– Small, isolated class 3 and greater resource areas were eliminated using a minimum density criteria

Wind potential is estimated by assuming 5 MW of installed wind capacity per km² of available windy land.



For more information on wind, please visit:

Wind Powering America
<http://www.windpoweringamerica.gov>

American Wind Energy Association
<http://www.awea.org/>

U.S. Department of Energy Wind Program
<http://www.eere.energy.gov/windandhydro>

National Renewable Energy Laboratory
<http://www.nrel.gov/wind>

National Wind Coordinating Committee
<http://nationalwind.org/>

Windustry Project
<http://windustry.org/>