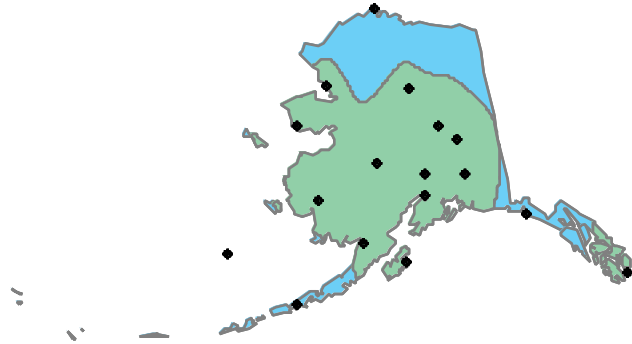




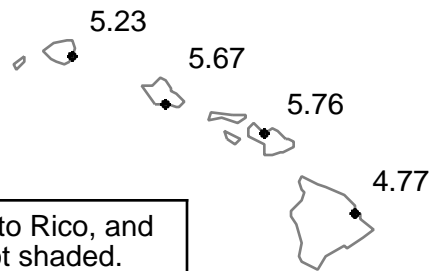
APPENDIX I

National Renewable Energy Laboratory Exhibits

Alaska

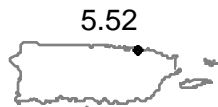


Hawaii

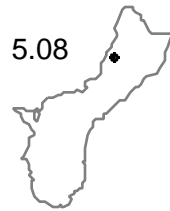


Hawaii, Puerto Rico, and Guam are not shaded.

San Juan, PR

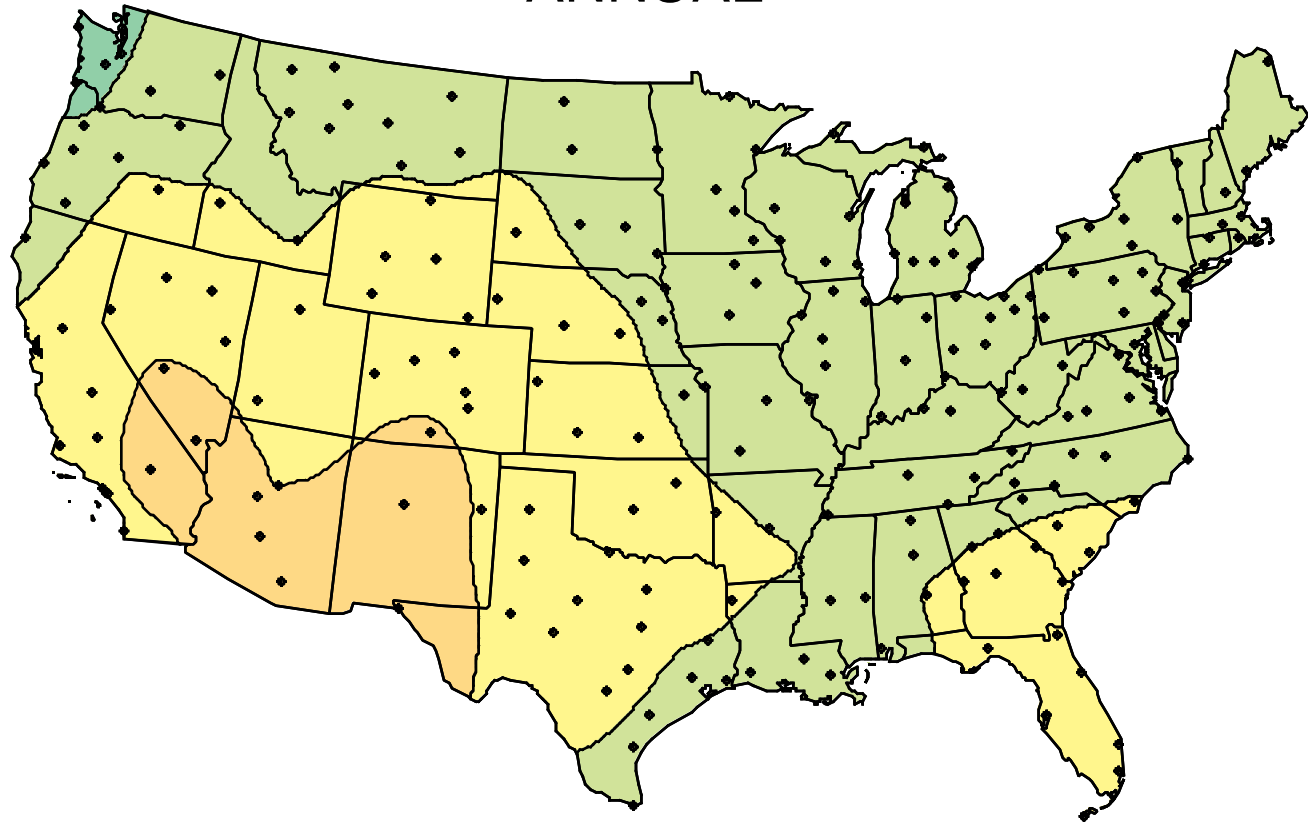


Guam, PI



Average Daily Solar Radiation Per Month

ANNUAL



Flat Plate Tilted South at Latitude

Collector Orientation

Flat-plate collector facing south at fixed tilt equal to the latitude of the site: Capturing the maximum amount of solar radiation throughout the year can be achieved using a tilt angle approximately equal to the site's latitude.

This map shows the general trends in the amount of solar radiation received in the United States and its territories. It is a spatial interpolation of solar radiation values derived from the 1961-1990 National Solar Radiation Data Base (NSRDB). The dots on the map represent the 239 sites of the NSRDB.

Maps of average values are produced by averaging all 30 years of data for each site. Maps of maximum and minimum values are composites of specific months and years for which each site achieved its maximum or minimum amounts of solar radiation.

Though useful for identifying general trends, this map should be used with caution for site-specific resource evaluations because variations in solar radiation not reflected in the maps can exist, introducing uncertainty into resource estimates.

Maps are not drawn to scale.

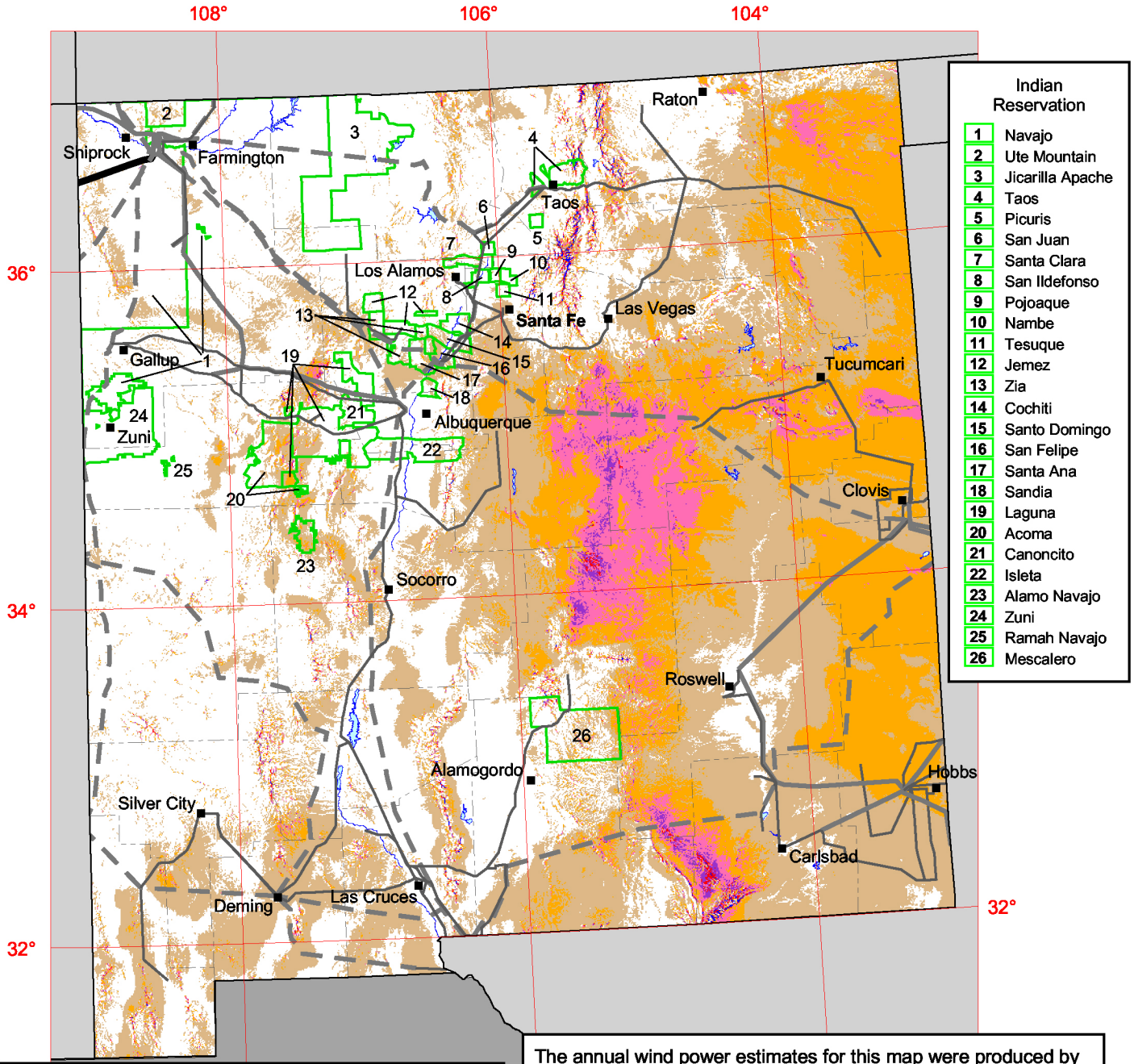


National Renewable Energy Laboratory
Resource Assessment Program

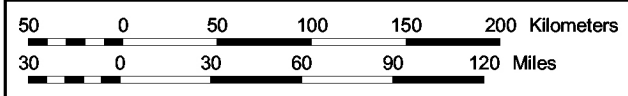
kWh/m²/day



New Mexico - Wind Resource at 50 m



- Indian Reservation**
- 1 Navajo
 - 2 Ute Mountain
 - 3 Jicarilla Apache
 - 4 Taos
 - 5 Picuris
 - 6 San Juan
 - 7 Santa Clara
 - 8 San Ildefonso
 - 9 Pojoaque
 - 10 Nambe
 - 11 Tesuque
 - 12 Jemez
 - 13 Zia
 - 14 Cochiti
 - 15 Santo Domingo
 - 16 San Felipe
 - 17 Santa Ana
 - 18 Sandia
 - 19 Laguna
 - 20 Acoma
 - 21 Canonicito
 - 22 Isleta
 - 23 Alamo Navajo
 - 24 Zuni
 - 25 Ramah Navajo
 - 26 Mescalero



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
	230
	345
	500

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



Biomass Resources Available in the United States

