

Alta Wind Energy Center

1,020 MW

Onshore Wind Turbine Power Plant

As of early 2012, California's 1,020 MW Alta Wind Energy Center is the largest wind farm in the world, with expansion underway to bring total capacity to 1,320 MW.

References

http://en.wikipedia.org/wiki/Alta_Wind_Energy_Center
<http://www.renewableenergyworld.com/rea/news/article/2010/07/worlds-largest-wind-project-is-underway?cmpid=WNL-Friday-July30-2010>

The 9,000 acre Alta Wind Energy Center (AWEC), is being developed near Tehachapi Pass Wind Farm, the site of the first large-scale wind farms installed in the U.S. in the 1970's and 1980's. It is estimated that AWEC will increase wind industry jobs in California by 20% and reduce carbon dioxide emissions by more than 52 million metric tons (equivalent to taking 446,000 cars off the road). Major investors in the project include Citi, Google, and GE.

Alta Wind is the first project to connect with Southern California Edison's Tehachapi Renewable Transmission Project, itself the first major transmission project in California to be constructed specifically for accessing a renewable-rich resource area. When completed, the Tehachapi Renewable Transmission Project will consist of more than 250 miles of new and upgraded high-voltage transmission infrastructure.



Location:	Tehachapi Pass, Kern County, California
Date Commissioned:	2010 through 2012
Rated Capacity:	1,020 MW (expansion underway to add an additional 300 MW)
Annual Production:	2,680.6 GWh per year (estimated)
Capacity Factor:	30% (estimated)
Carbon Offset:	52 million metric tons per year
Owner:	Terra-Gen Power
Generation Offtaker:	25 year PPA. Southern California Edison.
Generation Technology:	Vestas wind turbines: Alta 1: (100) 1.5 MW; Alta 2: (50) V-90 3 MW; Alta 3: (50) V-90 3 MW; Alta 4: (34) V-90 3 MW; Alta 5: (56) V-90 3 MW; Alta 7: (52) V-90 3 MW.
Cost:	\$1.2 billion plus \$650 million (\$1.85 billion total).