

Wind Energy Glossary



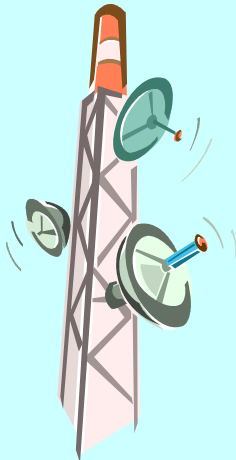
Anemometer - A device used to measure wind velocity as part of a wind resource assessment study. Cup anemometers are the standard type used today, with cups spinning on a vertical axis. The anemometer typically is installed on a met tower at the anticipated location and height of the potential wind turbine.



Commercial-Scale Wind - Refers to wind energy projects greater than 100 kW where the electricity is sold rather than used on-site. This category can include large arrays of 100 or more turbines owned by large corporations, a single locally-owned wind turbine greater than 100 kW in size, or anything in between.



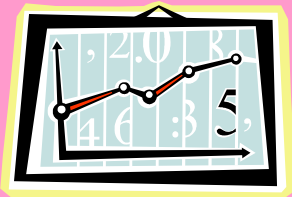
Community Wind - Community wind projects are locally owned by farmers, investors, businesses, schools, utilities, or other public or private entities and they optimize local benefits. The key feature is that local community members have a significant, direct financial stake in the project beyond land lease payments and tax revenue.



Meteorological Tower (Met Tower) - A tower used at a potential project site which has equipment attached to it which is designed to assess wind resource. Generally a met tower will have anemometers, wind direction vanes, temperature and pressure sensors, and other measurement devices attached to it at various levels above the ground.



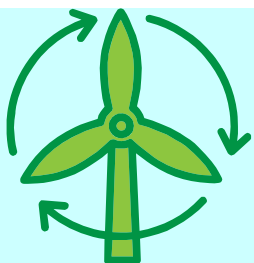
Net Metering - The concept of net metering programs is to allow utility customers to generate their own electricity from renewable resources, such as small wind turbines and solar electric systems. The customers send excess electricity back to the utility as Renewable Energy Credits (also called Green Tags) when their wind system, for example, produces more power than they need.



Power Curve - The instantaneous power output of a specific turbine design at various wind speeds. Used with wind resource data to determine the potential for electricity generation at a project site.



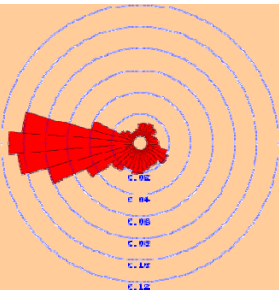
Shadow Flicker - occurs when the blades of the turbine rotor cast shadows that move across the ground and nearby structures.



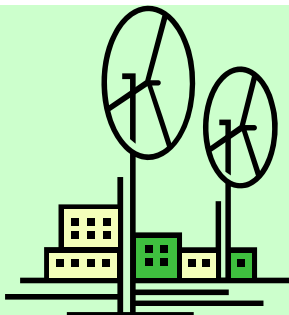
Turbine - A device for converting the flow of a fluid (air, steam, water, or hot gases) into mechanical motion that can be utilized to produce electricity.



Wind Power Class - A way of quantifying on a scale the strength of the wind at a project site. The Department of Energy's National Renewable Energy Laboratory defines the wind class at a site on a scale from 1 to 7 (1 being low and 7 being high) based on average wind speed and power density



Wind Rose - A wind rose shows the direction and the frequency of that direction that the wind blows at a particular location. Wind roses are used in wind projects to portray the amount of energy that comes into the wind project from various directions.



Wind Shear - A term and calculation used to describe how wind speed increases with height above the surface of the earth. The degree of wind shear is a factor of the complexity of the terrain as well as the actual heights measured. Wind shear increases as friction between the wind and the ground becomes greater. For example, a turbine placed in the same area as a factory will experience greater wind shear than a turbine placed in an open field. Wind shear is not a measure of the wind speed at a site.