

Energy Resources of Wind Power

"Wind power" is nothing but the successful conversion of wind energy into something other useful form, usually electricity by using wind turbines specially designed long blades, shaped such that they can capture the rushing wind and rotate providing for mechanical motion.

It was reported in the year 2005 that the world's wind power capacity was about 60000 megawatts, constituting about 1% of the world's present electric power usage. Although not much of this renewable energy is used in the U.S, countries like Denmark and Spain make use of this technology to contribute, in quite respectful doses, to their electrical energy needs.

Modern electric power is generated by converting the rotary motion of the turbines, caused by the wind, into electrical energy by the means of a electric generator. Wind power is used to provide electricity ranging from huge wind farms to stand-alone mills to provide energy for isolated places.

It also has to be noted that wind energy is renewable, abundant, mitigates the greenhouse effect, contributes nothing to the air pollution and is reasonable easy to produce. The cost of producing wind power has tumbled down considerably over the time. It is worth mentioning the fact the amount of wind power being produced in the U.S alone has seen growth rates of about 15 to 20%.

About 1 to 4% of the solar energy is converted into wind energy, while most of it is again absorbed by the vegetation for photosynthesis; the rest of it keeps rushing about at high altitudes and low-altitudes with varying velocities and intensities. The power of the wind is captured by letting it flow past the turbine blades which in turn induce a torque in the motor attached. The amount of power generated is proportional to the density of air, the area swept by the rotor and the cube of the speed of the wind.

Higher velocities of wind cause more power to be generated, however, all locations no not all always have winds blowing at the same speeds or velocities. It has been noticed that the power is averaged out and most of the windmills capture power in short wind bursts.

Wind power is quite a popular way to economize on the energy costs and most customers in the U.S can opt for some utility power service providers and subscribe to power from these forms of new alternative sources of energy mostly wind energy.

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About the Author

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