

➤ **Frequently asked questions**



➤ **A. What is wind ?**



➤ Wind is air in motion. Wind is mainly formed due to the Earth's rotation and the uneven heating of Earth's surface by sunrays.



➤ **B. What is a wind turbine ?**



➤ A wind turbine is a system which transforms the kinetic energy available wind into mechanical or electrical energy that can be harnessed for any required applications.



➤ **C. What are the different configurations of wind turbines?**



➤ There are two basic configurations of wind Turbines. One is Vertical axis wind turbine and the other is Horizontal axis wind turbine.



➤ **D. What are the main components of wind solar hybrid systems?**



➤ Small wind turbine (aero-generator) which contain blades, rotor, Generator, controller, tower, battery bank etc. SPV power plant contain solar panels, mounting structure, junction box, electrical wiring, charge controllers, battery bank etc. both the components work as per the atmospheric conditions.



➤ **E. What is the life of wind turbines?**



➤ Generally, the present wind turbines are designed to last for a period of 25 years.



➤ **F. Does wind turbines height affect the generation?**



➤ Yes, to achieve more power generation, the turbine should require more wind speeds with velocity, which will be available in a good elevation.



➤ **G. Will a wind turbine produce power in the rain season?**



➤ Yes, but the generation will be less when the air is humid and has larger percentage of water molecules. if the air is dry and has no water molecules, a wind turbine will produce more power.



➤ **H. Can we mount a small wind turbine on our roof top?**



➤ Yes, small wind turbines are mountable on roof top for domestic applications, Right now, in India, mostly small wind turbines are stand which stores powers in battery and in some of the western countries even small wind turbines are connected to the local

grid. Small wind turbine with capacity ranging from 300 W to 25 kW are now available in Indian market and gaining popularity.



➤ **I. Can we get continuous supply of electricity?**



➤ Yes, during the day time electricity is generated from solar panels, from the wind turbines electricity generated during the day time and as well as during the night time when wind blows. Such that power received from the wind solar hybrid system throughout the day and night time.



➤ **J. Are winds available throughout the year?**

➤ Wind is a variable in nature and varies time to time and place to place. It is predominantly driven by the monsoon and winds in India are influenced by strong south-west summer monsoon (April to September) and weaker North-East winter monsoon.

➤ **K. How we can design the system capacity. ?**

➤ Generally from 1 kW capacity wind solar hybrid system per day 2.5 Kwh electricity is generated. However it depends on wind speed of particular location and intensity of the solar radiation. Accordingly beneficiary can estimate his energy consumption per day in Kwh and decide the capacity of the system.