

Advantages of Wind & Solar Hybrid Systems

While solar system can generate electricity well at days, it would be better if we could generate power during night too. Negative correlation between wind and sunlight motivates us to install wind solar hybrid system. In brighter day, wind tends to be low and vice versa. Thus, consistent energy resource will be provided by hybrid system in comparison to solar system solely.

The research project covers self-use wind solar hybrid system in residential area for energy supply to electrical devices and excess power generated will be stored in the battery for later use. Two types of wind turbine are used which are horizontal axis wind turbine (HAWT) and vertical axis wind turbine (VAWT). Both types of turbines will be investigated to determine the wind turbine with best performance to be used in local environment.

VAWT requires low wind speed for startup speed compared to HAWT. On top of it, VAWT catches wind more efficient as it sweeps wind in all direction while HAWT requires tailgate to adjust the blades to face the wind direction.
