SOLAR POWER PLANTS

POWERWIN has experience and capability to take complete turkey power plant projects from concept to Installation. Company carries out Grid connected & Stand-alone Solar power plant Projects.

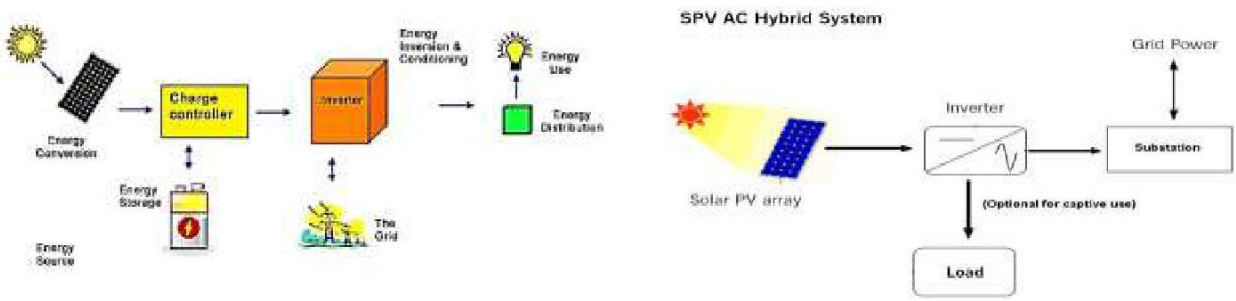
Company provides project solutions that include following:

- Initial project feasibility assessment.
- Project design documents (PDD) and obtaining the requisite approvals from the government.
- Technology selection, project engineering, implementation & erection.
- Complete Generation monitoring system to verify the Units being generated.
- Solar panel, Inverters, Electronics, Safety and monitoring system procurement.
- Complete system implementation on site.
- 10 years maintenance contract.

MODEL	Stand Alone	Hybrid	Grid Connected
M1	250Wp-4KW	5KW-150KW	500KW-5MW
M2	5KW-20KW	20KW-50KW	5MW-20MW

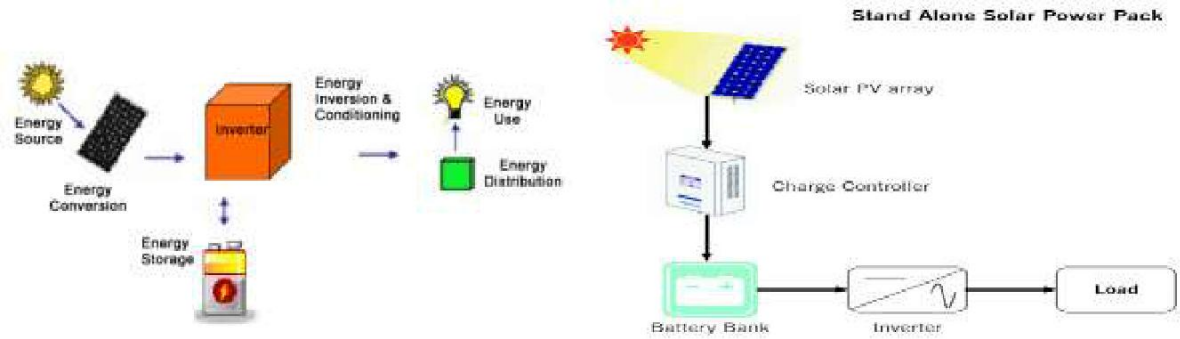
GRID CONNECTED SYSTEM

Grid Connected System is connected to utility grid and feeds power back into the grid. The system consists of PV panel connected to grid tie inverter. The power produced by the PV system can be either supplied to loads or fed back into grid when the PV system Output is greater than the load demand. When the PV system output is less than the load demand (e.g. at night), energy will be consumed from the utility grid. Solar grid connected system varies in size from residential to solar power stations.



STAND ALONE SYSTEM

Stand-alone Solar Power System or Stand-alone PV System operates independent of the electric utility grid (off-grid) and most often used in remote areas where the utility grid is not available or where the connection fees of the grid are higher than the cost of an alternative energy system. Stand-alone Solar Power System is used to power remote home, school or village. The generated DC power needs to be stored in battery and converted to AC power for supplying to AC loads.



SOLAR POWER PACKS

Solar power packs use the suns free energy to generate electricity at a nominal cost. The pack consists of 3 components namely Solar PV Panels, Inverter & Battery.

These power packs take power from the solar panel and EB supply; convert the voltage suitable to the domestic appliances and supplies to the connected load.

Technical Details:

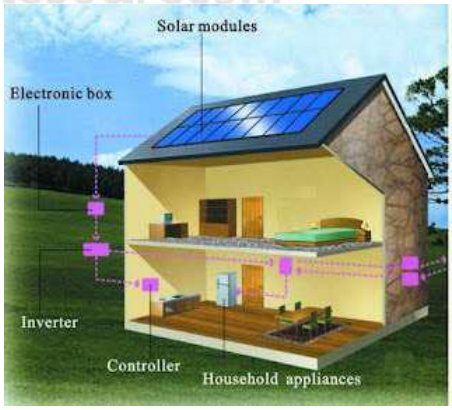
1. RATING	1KVA	1.5KVA	2KVA	3KVA	5KVA
2. DC VOLT	24 OR 48V DC		48V DC		96V DC
3. I/P RANGE	20V - 30V DC		40V DC-TO--60V DC		80V – 115V DC
4. CREST FACTOR	3:1				
5. METERING	LCD DISPLAY FOR : I/P DC volt; O/p volt AC; O/P Current; O/p frequency; Dc current				
6. INDICATION	DC ON; DC Under; DC Over; Overload; Load on mains; Mains charger on, Solar ON, Charging ON				
7. PROTECTIONS	Battery low/dc under; Dc over; Over load/short circuit; Manual c/o to mains charger incase of solar not available; I/P reverse polarity blocking diode				
8. SWITCH GEARS	a) I/P MCB for solar, Battery, MPPT; b) O/P MCB for AC				

Application

Powers household equipment's such as lights, fans, mixer, refrigerators etc

Features:

- No inflation in electricity bills
- Free energy after the payback period
- Easy to install & maintain
- MNRE approved & certified
- Heavily supported by government through accelerated depreciation, tax benefits and subsidies

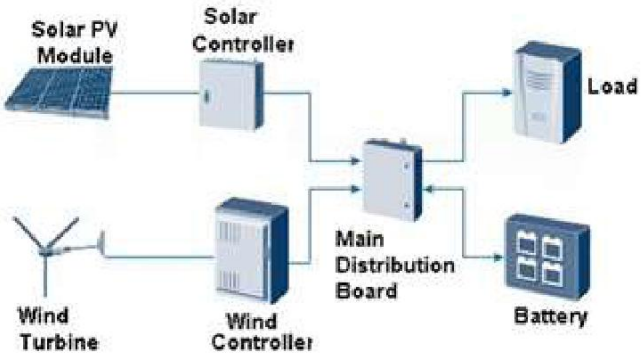


SOLAR WIND HYBRID PLANT

By utilizing complementary resources of Solar & Wind, the Solar – wind Hybrid power system supplies stable & reliable power to BTS. The system is mainly composed of the Solar Panels, Wind turbine, Solar Controller, Wind Controller, main distribution board, & batteries etc.

System Features

- Battery Backup: As required.
- Designed for all types of linear & non - linear loads.



Application

- Where the grid is unavailable or un-reliable.
- The wind energy & solar energy complement each other.
- Areas with rich Solar resources & the average peak sunshine duration ≥ 3 Hrs per day throughout the year, average wind speed ≥ 4 m/s throughout the year.