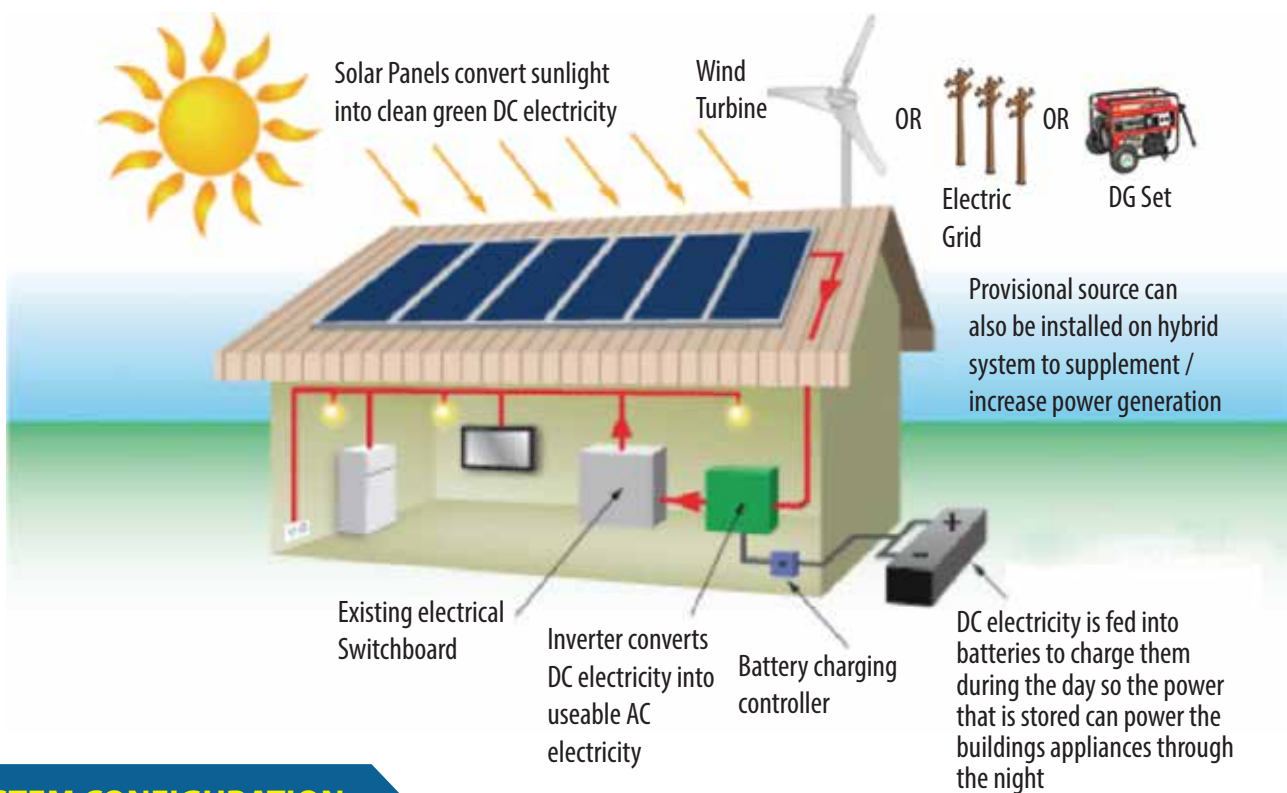


# OFF GRID / HYBRID SOLAR POWER BACK UP SYSTEMS FOR DOMESTIC APPLICATION

In real life, where the mains electricity grid is Available but NOT unreliable (due to frequent / long power failure) and you only want to backup power from solar electrification system to use when grid supply fails.

In the simplest PV systems, DC current is used directly. In applications where AC current is necessary, an inverter can be added to the system to convert the DC current to AC current. The generated DC power is stored into battery and converted to AC power for supplying to AC loads. These systems may also be connected to Grid supply such that in case of lack of power from sun, additional power may be drawn from the Grid.



## SYSTEM CONFIGURATION

- 1. Solar Photovoltaic Array :** The Solar Module converts incident sunlight to DC electricity. Several such modules can be connected in series and parallel combination to achieve the desired output.
- 2. Solar Charge Controller :** A high efficiency Solar Charge Controller is used to regulate battery charging from the solar arrays and preventing the battery from overcharge and deep discharge.
- 3. Rechargeable Battery :** All energy gained from the Solar Arrays is fed through a Solar Charge Controller to Battery bank and stored there in DC form.
- 4. Inverter :** An Inverter converts DC energy from the battery to 230V, 50Hz AC energy to operate various ac electrical appliances. The latest Solar Hybrid Inverters offers you best of both world solutions by combining built-in Solar Charge Controller with the Grid charger for optimum battery charging.

## QUALITY BENEFITS

- » It is especially designed for use in areas where the grid is not reliable, as an emergency power supply.
- » Live in peace, with no noisy gas generator to disturb the quiet.
- » Almost no maintenance, perhaps in a prolonged dry spell; the dust could be washed off once in a while.
- » No fuel and if properly sized can run your critical household electric load indefinitely.
- » Customized solar solutions that are suitable for all applications
- » Additionally, they can be configured as a normally solar powered system that is backed up by the electrical grid.
- » The electrical grid can be used as a standby in case the batteries get too low.
- » A reserve charge can be built in to the battery bank to run the critical loads in absence of both sun and grid power.
- » Financial freedom, once paid for the system will produce electricity free for the long life.

**We offers compact and portable solar home power system unit which is easy to install and starts generating electricity within minutes delivering profitability from day one. Solar System powers your requirements during day and can store the excess power into the battery bank to meet your needs during night & non sunny days. PV systems are significantly more economical to operate as compared to stand-alone generation sets (diesel, gas) since they do not have any operating expenses.**

## ELEMENTARY SUITABLE FOR



Domestic Lighting



Common Home Appliances



Entertainment Appliances



Kitchen/Pantry/ Appliances



Cooling Appliances



Office Appliances



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