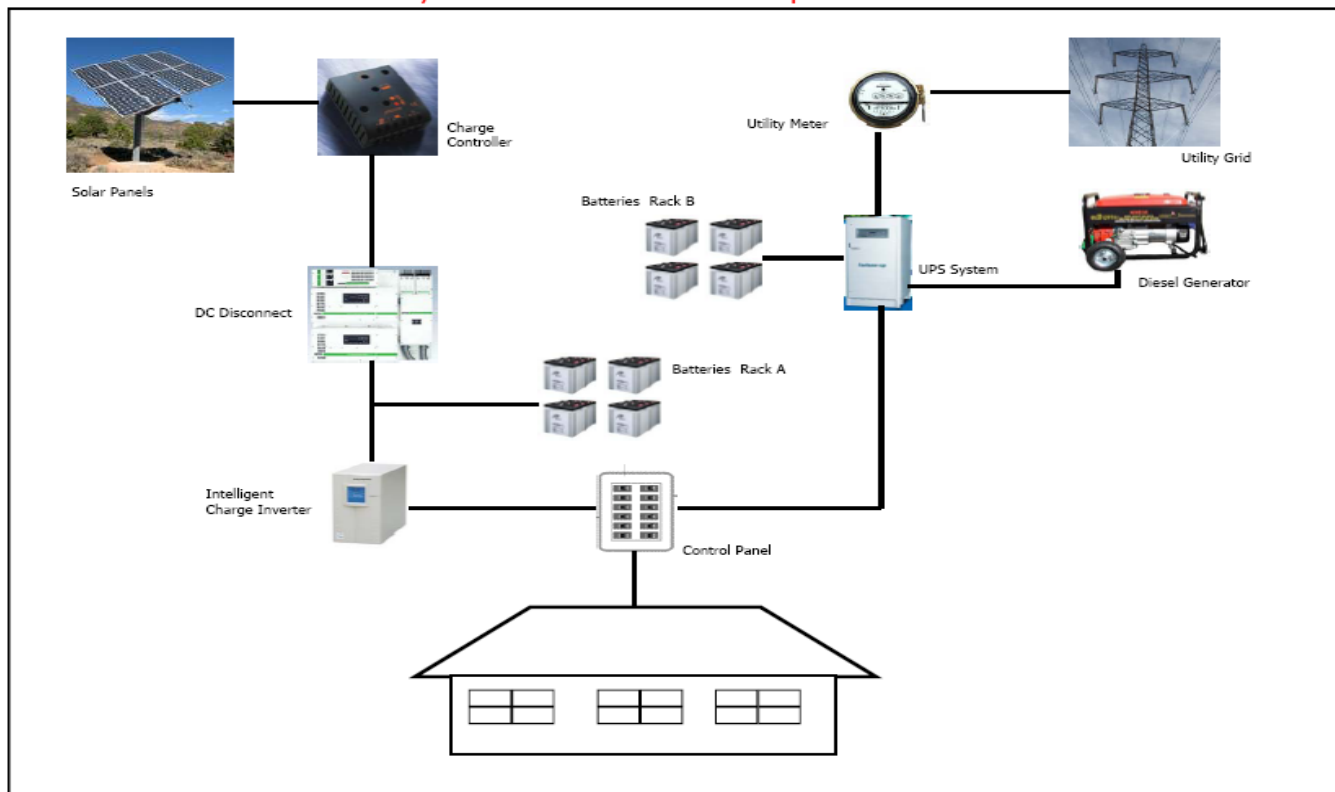




Fortune CP HYBRID SYSTEM

Grid-tie System with Power Backup and Generator



This Fortune CP power system can be used to run domestic loads and also industrial/commercial applications where power availability is critical such as banks, telecom and radio repeater stations, factories, commercial buildings and shops, office blocks. It is suitable for use where grid power blackouts occur often.

The components of the system can vary depending on requirements and can be configured to suit various needs. We design supply and install systems to include:

1. Solar power, grid power, inverter back-up (UPS), and diesel generator
2. Solar power, grid power, and inverter back-up
3. Solar power, wind power, and grid power
4. Solar power, wind power and generator (for remote applications)
5. Solar power, and generator (for remote applications)

The system above includes:

- Solar panels with battery bank and DC/AC grid-tie inverter (some systems can be installed without controller and battery bank)
- Grid power provided by local utility company—through meter and main control panel. The grid can be configured to run in parallel to solar system or one can be primary and the other secondary.
- Inverter back-up (UPS) - this system stores power when the grid is on, and supplies the power when the grid is off. Other systems that do not have the UPS will have a control panel to connect the grid and generator
- Diesel generator with automatic switching system. This is the last resort and used only in extreme emergencies

The first source of power is electricity from the grid. Grid power goes to the Bank building through a pure sine wave inverter/UPS. The inverter is also connected to back-up storage batteries. During the time grid power is available, the inverter also charges up the storage batteries. When there is a power black-out, the inverter taps power from the storage batteries. The grid can be configured to run in parallel to the next source—solar panels. Another configuration is to have either the grid or solar panels to act as primary while the other is secondary.

If the power from solar panels is all consumed, the generator can take over. Note that the generator is the last resort since its power is expensive to run. All 3 sources of energy are controlled by either one or two control panels.

Note: This system configuration makes it possible to install panels in phases (over 2 years) depending on the customer's budget. It means, eventually the generator (and later the grid) can become obsolete as the customer becomes energy independent.

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