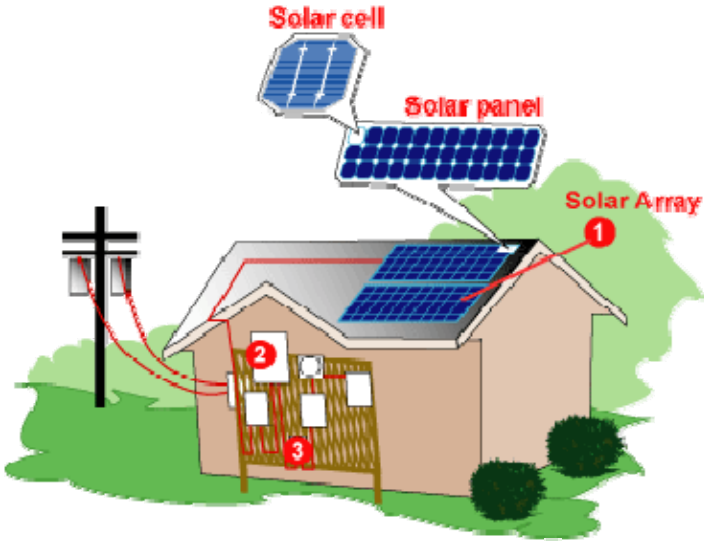
Solar Photovoltaics

Understanding Solar Systems

Solar cells (usually made out of silicon) collect light and convert it into electricity. The electricity is in the form of a direct current (DC) that must be converted by an inverter into an alternating current (AC) before it can be used in a home or business.

Several solar cells form a solar module or panel. Several solar modules form a solar array. There can be more than one array to an installation depending on the electric needs of the building.

A solar system with 100 square feet of panels generates 1,000 - 1,440 kWh of electricity per year. Electric generation is proportional to area. A shade-free, uniformly-oriented solar system with twice the area would generate twice the electricity.



1 Solar panel array

2 Inverter

3 Switches and wiring