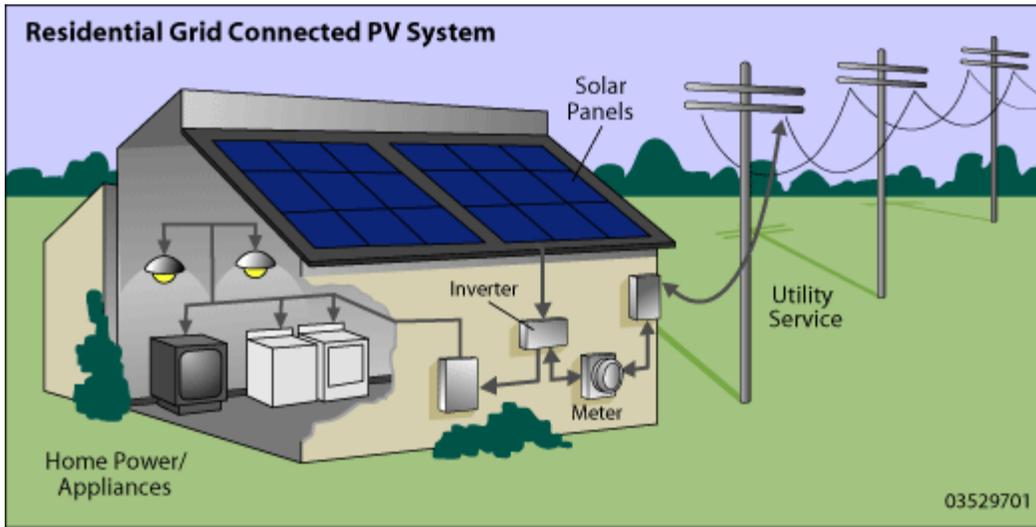




Make Your Own Electricity

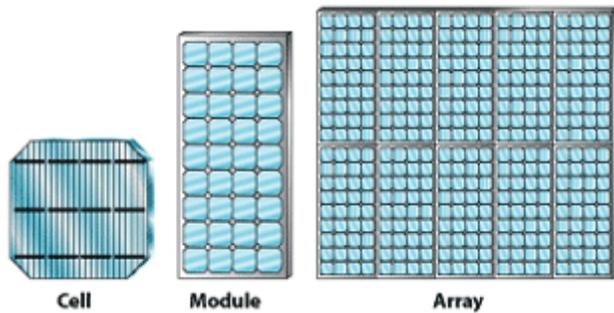
City of Huntington Beach Green Building Tips

A solar-electric renewable energy system (also called a photovoltaic (PV) system) can be used to supply some or all of your electricity needs. You can connect your system to the grid and use it to reduce the amount of conventional power supplied to your home through the grid. A grid-connected system also allows you to sell the excess power you produce back to your power provider. The 1978 Public Utility Regulatory Policy Act (PURPA) requires power providers to purchase excess power from grid-connected small renewable energy systems at a rate equal to what it costs the power provider to produce the power itself. PV ar-



rays can be mounted at a fixed angle facing south, or they can be mounted on a tracking device that follows the sun. Because of their modularity, PV systems can be designed to meet any electrical requirement, no matter how large or how small. Also, when a home is built with Passive Solar Design in mind, that is, when it is designed to use the sun's energy for heating and cooling living spaces, then a PV system can be even more effective.

It is always a good idea to get



more than one bid for the installation of your PV system. Make sure that all bids are made on the same basis. For example, a bid for a system mounted on the ground is usually very different from another bid for a rooftop system. Similarly, some PV modules generate more electricity per square foot than others. Bids should clearly state the maximum generating capacity of the system—measured in watts (W) or kilowatts (kW). If possible, have the bids specify the system capacity in "AC watts" (alternating current) under a standard set of test conditions, or specify the

output of the system at the inverter. Also request an estimate of the amount of energy that the system will produce on an annual basis (measured in kilowatt-hours). Because the amount of energy depends on the amount of sunlight—which varies by location, season, and year to year—it's unlikely the contractor will quote a specific figure, but a range of 20% is realistic. Bids also should include the total cost of getting the system up and running, including hardware, installation, connection to the grid, permitting, sales tax, and warranty. Note that Huntington Beach offers no-fee permits for PV system insulation.

Information derived from US Department of Energy
<http://www.eere.energy.gov/consumer/>
<http://www.energystar.gov>



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