



Solar Panel Diagram

This diagram helps to explain the chemistry behind a solar cell. Solar panels are made up of multiple solar cells which are composed of a negatively charged mixture of Phosphorus/Silicon which combine to have one electron in its outer shell, and a positively charged mixture of Silicon/Boron which combine to have 7 electrons in its outer shell. As photons from the sun's energy are absorbed, the single outer electron from the negatively charged P/Si mixture eventually breaks loose and almost immediately bonds to the positive S/B mixture which has a spot for one more electron. This constant electron movement creates electricity which flows out of the solar cell to power the electric load.

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Equipment Terminology

Solar Panels are the visible key element of the solar electric system. They are the source of changing solar energy into electricity. They are found on the roofs or on mounted ground applications.

Solar Array Mounting Racks

Solar "cells" that are multiple cells working in conjunction to form a "Panel". Several panels together are the basis for an "Array". The number of arrays will determine the output one panel will generate, between 10 and 300 watts. While roof mounted systems are the most common, there are usually ordinances and fire codes designed around construction, location



Solar equipment photos courtesy of NEXUS EnergyHomes