

Batteries

One of the few technologies that is most crucial for alternative energy solutions is the battery. Batteries store energy in the form of electrical energy that is obtained from the production of energy in any way. This page will deal with the exact design of a battery, and examine both physics and chemical concepts behind how several common batteries work.

A battery is often called an electrochemical cell, and it is essentially just that. It is composed of two areas associated with the plus and minus signs as seen on a battery. The purpose of the plus and minus areas are to make the path that electrons will follow. In a home alternative energy system, the batteries are charged when some alternative energy form creates electricity that flows into the battery. The electrons either taken from the alternative energy form or generated through it flows through to the battery, where it is held until it is used.

Whenever you hear the name of a battery there are always two elemental names that are part of the name. An example of this is NiCad, that stands for Nickel Cadmium. The two elements on the name of a battery represent the two areas of the battery. On one side of the NiCad battery is a chemical solution that loses electrons to the other side of the battery. The Cadmium in a chemical solution loses electrons, and the nickel portion of the battery gains those electrons. The process of losing electrons is called oxidation, and the process of gaining electrons is called reduction.

Any alternative energy form that charges a battery will have a line running from the battery on both the positive and negative terminals. This is because in order for the circuit to be closed lines must connect either the generator or the energy form directly through both the positive and negative terminals. When an alternative energy form is charging the battery there may be times when no energy can be produced. Other times there may be a great amount of energy that may be harnessed. An inverter is a piece of apparatus that keeps the current from the alternative energy source pulsating and flowing to the battery and back out to the places where electricity is taken from the battery.

Read more about [electricity](#) at the science concept page devoted to it.