

Solar Power Inverter

<https://www.youtube.com/watch?v=vYpI5ZI6r8o>

The project aims at developing a system which makes use of solar energy for rural electrification. Solar energy is treated as renewable source of energy.

A solar panel is a large flat rectangle, typically somewhere between the size of a radiator and the size of a door, made up of many individual solar energy collectors called solar cells covered with a protective sheet of glass. The cells, each of which is about the size of an adult's palm, are usually octagonal and colored bluish black. Just like the cells in a battery, the cells in a solar panel are designed to generate electricity; but where a battery's cells make electricity from chemicals, a solar panel's cells generate power by capturing sunlight instead. They are sometimes called photovoltaic cells because they use sunlight ("photo" comes from the Greek word for light) to make electricity (the word "voltaic" is a reference to electricity pioneer Alessandro Volta).

The project makes use of a solar panel. The Solar energy obtained is stored to a battery. The battery supply is fed to pulse generator and in turn to a MOSFET which is capable of generating ON/OFF pulses of different frequencies. This is fed to a step-up transformer to generate a low voltage AC. This AC is fed to electrical appliance.

The major building blocks of this project are:

1. solar.
2. Charging circuit.
3. Rechargeable battery.

4. Inverter.

5. Load.

Block Diagram:

