

The Solar street lights work on the principle of the photovoltaic cell or solar cells. The solar cell converts solar energy to electrical energy which is stored in the battery. The solar lamp draws the current from this battery & it requires no other wiring.

Working of Solar street light

The solar street light uses solar energy, a form of the renewable energy. These days it is common to see the solar street lamps along the sides of roads. Solar street lighting system uses the photovoltaic technology to convert the sunlight into DC electricity through solar cells. The generated electricity can either be used directly during the day or may be stored in the batteries for use during night hours.

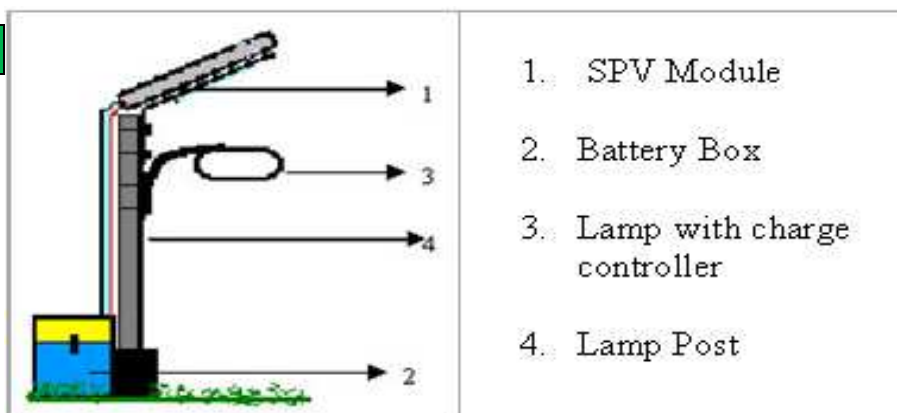
Solar street lighting system is ideal for street lighting in remote villages. The system is provided with battery storage backup sufficient to operate the light for 10-11 hours daily. The system is provided with automatic ON/OFF time switch for dusk to dawn operation and overcharge / deep discharge prevention cut-off with LED indicators. The solar street light will turn on and off automatically. These intelligent street lights will also turn on when they see light going below a certain level during the day. There is no hassle of changing times for different weathers with solar street light.

The SPV modules are reported to have a service life of 10 -15 years. Tubular Batteries provided with the solar street lighting system require lower maintenance; have longer life and give better performance.

Parts of Solar Street Lightening System

The solar street lighting system comprises of:

- Solar photovoltaic module
- Battery box
- Lamp with charge controller
- Lamp post



Specifications

CFL based Solar Street Light

Light Source : 11 Watt CFL Lamp with fixtures

74 Watt Solar PV Module

12 V, 75 AH Tubular battery with battery box

Charge Controller cum Inverter (20 – 35 KHz)

Minimum 4 meter mild steel lamp post above ground level with water proof paint & mounting hardware

Average Duty Cycle : Dusk to Dawn

LED based Solar Street Light

Light Source : White LED

45 Watt Solar PV Module

12 V, 40 AH Tubular battery with battery box

Charge Controller cum Inverter (20 – 35 KHz)

Minimum 4 meter mild steel lamp post above ground level with water proof paint & mounting hardware

Average Duty Cycle : Dusk to Dawn

Note: Customised made according to customer / area requirement.

Advantages

- No requirement of electricity
- Easy to install
- Simple to operate and low maintenance cost
- Eco friendly
- Automatic Dusk to Dawn Operation

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