



**TOPSCOM**

TECHNOLOGY SOLUTIONS

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## COMPANY PROFILE

**TOPSCOM TECHNOLOGY SOLUTIONS** had been involved in numerous community projects since 2000. These projects are primarily targeted at reaching out to the rural communities with the objective of improving the quality of lives in these places. Since then, we had been working with various parties to help these communities by availing electricity to them via solar technology. These programs are made possible through the efforts of many NGOs, charity and religious organizations.

In 2008, **TOPSCOM TECHNOLOGY SOLUTIONS** was established as a business platform, together with the support of SDGI Optical Network Technology Co., Ltd (a subsidiary of public-listed Shenzhen SDG Information Co., Ltd) and several other private investors. The establishment of this business platform enables the organization to engage in commercial activities and channel its profits towards the community outreach programs.

Our stakeholders, management and staff firmly believe in its vision of ***Harnessing Technology for a Better Life***. Hence it remains committed towards the organization's mission to ***Embrace and Promote Renewable Energy and Technology Solutions to the Consumers***. We are proud to be amongst the pioneers of a worldwide green-collared workforce.

Our long-standing service policy is to always provide innovative and quality technology solutions to our clients to ensure the best possible value for them. This means raising our clients' awareness on the technology and their valuable contributions in making the world a cleaner and better living space for our future generations.

### A GREEN MESSAGE

Using renewable solar energy enables us to reduce the use of fossil fuels to generate energy. Fossil fuel energy generation pollutes our environment. You are empowered to help. Do your part. Be a responsible global citizen. **SAVE GAIA.**



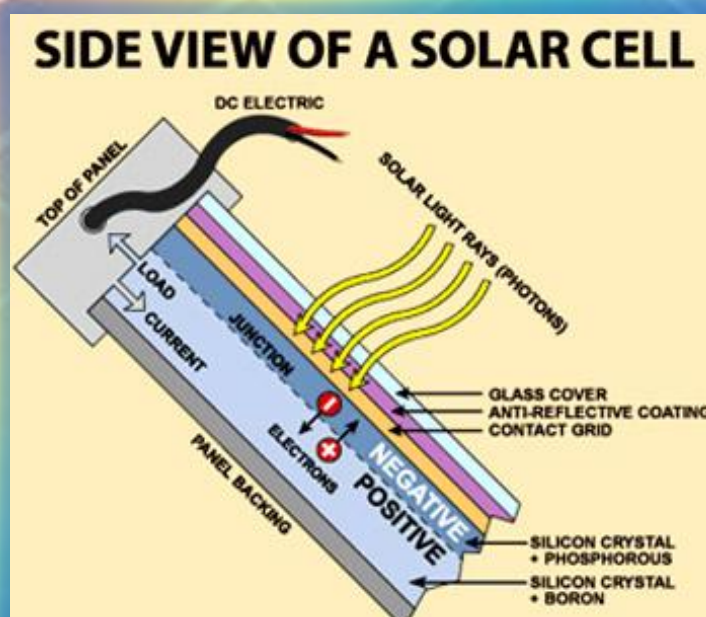
## RENEWABLE SOLAR ENERGY

### What is Renewable Solar Energy?

Solar energy takes advantage of the sun's rays to generate heat or electricity. Solar energy is renewable because it is powered by the sun, a constant source of energy. The planet will never run out of sunlight and thus, solar energy is infinite. This enables the world not to rely only on fossil fuels, which is a finite resource. This renders users of solar energy systems energy independence. There is enough sunlight all year round across the globe to provide enough power for consumer use. Solar energy is also unique for its ability to generate energy in a quiet, clean, and consistent manner.

### How is Sunlight converted into Solar Energy?

PV systems, commonly known as solar panels, directly convert sunlight into energy using the principles of the photovoltaic (or PV) effect. The PV effect takes advantage of the properties of semiconductor materials, for example, silicon. When photons strike the semiconductor material, electrons within it are shaken loose and become free flowing electricity. This electricity generated will be in the form of a direct current (or DC) voltage, and can be used directly to charge batteries, or can be connected to an inverter to transform into alternating current (AC) voltage.

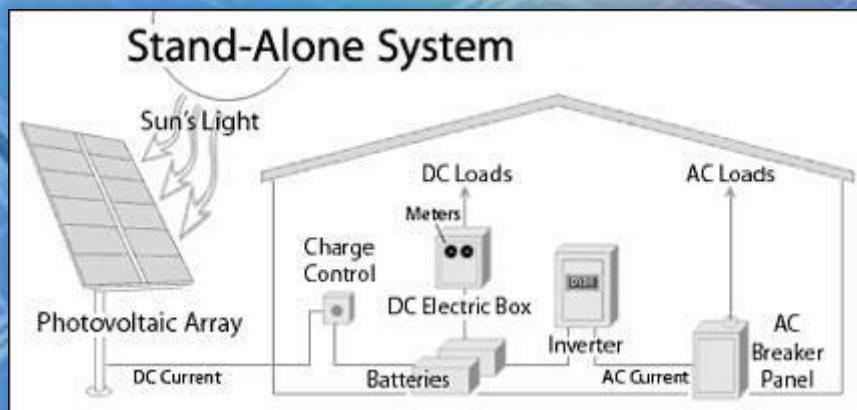


Picture courtesy of UTSolar.org

## RENEWABLE SOLAR ENERGY

### What are the main components required for a Solar Power System?

In using a Solar Power System, the four primary components for producing electricity are: solar panels, charge controller, battery and inverter. Solar panels charge the battery, and the charge controller regulates charging of the battery. The battery provides DC voltage to the inverter, and the inverter converts the DC voltage to normal AC voltage.



*Picture courtesy of UTSolar.org*

A misconception about using solar energy is that a Solar Power System does not have power at night or when it's cloudy, but that is not the case. A Solar Power System, whilst providing power in the day, is concurrently charging the batteries connected to it. These batteries, depending on their capacity, will be able to provide sufficient energy for use during the night.

### What are the benefits of using a Solar Power System?

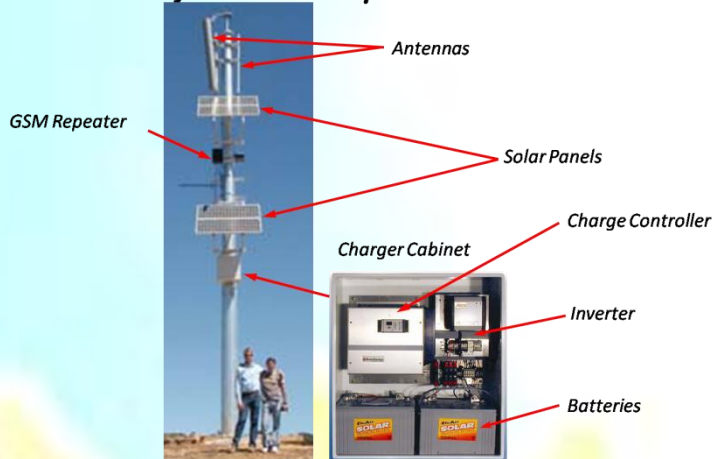
Solar power is harnessed from the sun, an infinite resource. This means energy independence (as compared finite fossil fuel resource).

Solar power is also environmentally friendly. It does not emit greenhouse gases. It does not damage our ecosystem.

Solar power is quiet during use. It is also safe to use. Many users install their Solar Power System in their own home and still sleep soundly at night!

## PROJECTS AND APPLICATIONS

### Solar Power for Telecom Repeater



### Other Applications

- Solar Power for BTS
- Solar Power for Microwave Links
- Solar Power for Public Phone Stations
- Solar Power for Emergency Call Stations
- ... and many others ...

### Other Applications

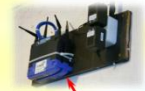
- Solar Power for Rural Homes
- Solar Power for Orphanages
- Solar Power for Child Care Centres
- Solar Power for Communal Centres
- ... and many others ...

### Rural School Site with Off-grid Solar Power Installation



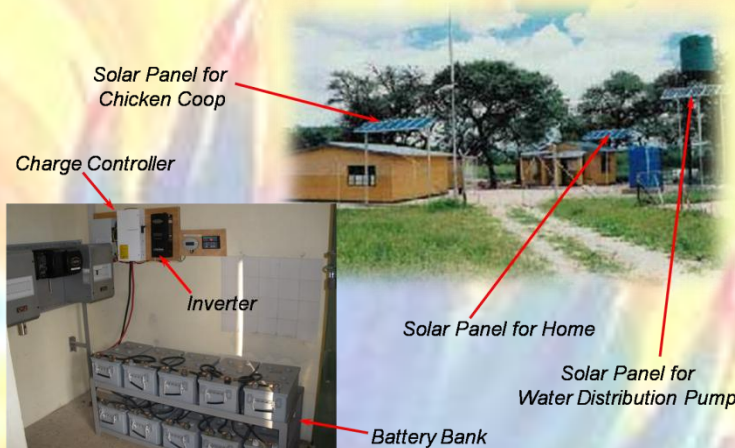
Roof-mounted Solar Panels

Controller Box With Inverter



WLAN

### Solar Power System on a Farm



### Other Applications

- Solar Power for Hospitals
- Solar Power for Villages
- Solar Power for Agriculture
- Solar Power for Public Lighting
- ... and many others ...