

## Why Solar Energy?

Solar energy is the readily available source of energy; it is abundant and free since it does not belong to anybody. Also the most important of the non-conventional sources of energy since it is non-polluting. After dramatic rise in oil prices in the 1970s, several countries began to formulate extensive Research & Development programmes to



exploit solar energy. We hang out our clothes to dry in the sun; we use the energy of the sun. In the same way, solar panels absorb the energy of the sun to generate electric power. In the next few years it is expected that millions of households in the world will be using solar energy as the energy trends show. In India the Indian Renewable Energy Development Agency and the Ministry of

Non-Conventional Energy Sources are formulating a programme to have solar energy in more than a million households in the next few years. The people's initiative is essential if the programme is to be successful. India is one of the few countries with long days and plenty of sunshine, especially in Southern India and Western India of Thar Desert region. These zones having abundant solar energy, is suitable for harnessing for a number of applications.



**India receives solar energy equivalent to over 5000 trillion kwh / year, which is far more than the energy consumed by the entire country.**



Solar energy can also be used to meet our electricity requirements. Through Solar Photovoltaic (SPV) cells, solar radiation gets converted into DC electricity directly. This electricity can either be used as it is or can be stored in the battery. This stored electrical energy then can be used at night. SPV

can also be used for a number of applications such as:

- Domestic lighting and Commercial lighting
- Street lighting and Park lighting
- Village and Town electrification
- Water pumping and Remote Power Utilities
- Businesses and huge Warehouses
- Small & Medium range of Industries, Factories
- Road signals & Railway signals and
- Powering of remote telecom repeater stations.

**Form of Energy:** Thermal energy  
**This energy is used for:** Cooking / Heating, Drying/Timber seasoning, Distillation, Electricity / Power generation, Air Cooling, Refrigeration and Cold storage  
**Some of the gadgets and other devices:** Solar cookers, Concentrating collectors, Solar hot water systems (Domestic and Industrial) Solar pond, Solar hot air systems, Solar Dryers, Solar timber kilns, solar stills, Solar photovoltaic systems, Power Tower, Air conditioning and Refrigeration systems.



The means to make efficient use of solar energy would reduce our dependence on non-renewable sources of energy and make our environment cleaner and greener.

### Vision

Empower Green Energy & Lighting Everywhere

### Mission

Pursuing the ultimate energy efficiency, lighting quality and sustainable environment

### Philosophy

Energy saving, Environment friendly, CO<sub>2</sub> reduction and Healthy Living.