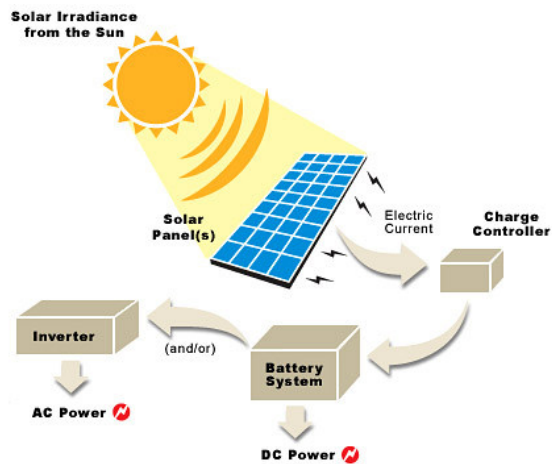


# SOLAR POWER – SUSTAINABLE GREEN ENERGY

1. Introduction - Originally developed for energy requirement for orbiting earth satellite – Solar Power – have expanded in recent years for our domestic and industrial needs. Solar power is produced by collecting sunlight and converting it into electricity. This is done by using solar panels, which are large flat panels made up of many individual solar cells. It is most often used in remote locations, although it is becoming more popular in urban areas as well.



There is, indeed, enormous amount of advantages lies with use of solar power specially, in the context of environmental impact and self-reliance. However, a few disadvantages such as its initial cost and the effects of weather conditions, make us hesitant to proceed with full vigor. We discuss below the advantages and disadvantages of Solar Power:

## 2. Advantages of Solar power -

(a) The major advantage of solar power is that no pollution is created in the process of generating electricity. Environmentally it the most Clean and Green energy. Solar Energy is clean, renewable (unlike gas, oil and coal) and sustainable, helping to protect our environment.

(b) Solar energy does not require any fuel.

(c) It does not pollute our air by releasing carbon dioxide, nitrogen oxide, sulfur dioxide or mercury into the atmosphere like many traditional forms of electrical generation does.

(d) Therefore Solar Energy does not contribute to global warming, acid rain or smog. It actively contributes to the decrease of harmful green house gas emissions.

(e) There is no on-going cost for the power it generates – as solar radiation is free everywhere. Once installed, there are no recurring costs.

(f) It can be flexibly applied to a variety of stationary or portable applications. Unlike most forms of electrical generation, the panels can be made small enough to fit pocket-size electronic devices, or sufficiently large to charge an automobile battery or supply electricity to entire buildings.

(g) It offers much more self-reliance than depending upon a power utility for all electricity.

(h) It is quite economical in long run. After the initial investment has been recovered, the energy from the sun is practically free. Solar Energy systems are virtually maintenance free and will last for decades.

(i) It's not affected by the supply and demand of fuel and is therefore not subjected to the ever-increasing price of fossil fuel.

(j) By not using any fuel, Solar Energy does not contribute to the cost and problems of the recovery and transportation of fuel or the storage of radioactive waste.

(k) It's generated where it is needed. Therefore, large scale transmission cost is minimized.

(l) Solar Energy can be utilized to offset utility-supplied energy consumption. It does not only reduce your electricity bill, but will also continue to supply your home/ business with electricity in the event of a power outage.

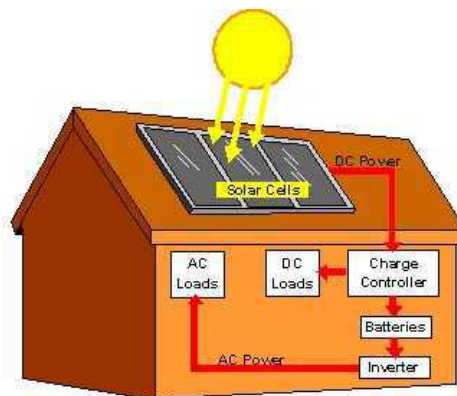
(m) A Solar Energy system can operate entirely independently, not requiring a connection to a power or gas grid at all. Systems can therefore be installed in remote locations, making it more practical and cost-effective than the supply of utility electricity to a new site.

(n) The use of solar energy indirectly reduces health costs.

(o) They operate silently, have no moving parts, do not release offensive smells and do not require you to add any fuel.

(p) More solar panels can easily be added in the future when your family's needs grow.

(q) Solar Energy supports local job and wealth creation, fuelling local economies.



### 3. Disadvantages of Solar power –

(a) The initial cost is the main disadvantage of installing a solar energy system, largely because of the high cost of the semi-conducting materials used in building solar panels.

(b) The cost of solar energy is also high compared to non-renewable utility-supplied electricity. As energy shortages are becoming more common, solar energy is becoming more price-competitive.

(c) Solar panels require quite a large area for installation to achieve a good level of efficiency.

(d) The efficiency of the system also relies on the location of the sun, although this problem can be overcome with the installation of certain components.

(e) The production of solar energy is influenced by the presence of clouds or pollution in the air. Similarly, no solar energy will be produced during nighttime although a battery backup system and/or net metering will solve this problem.

(f) As far as solar powered cars go – their slower speed might not appeal to everyone caught up in today's fast track movement.

Source : <http://saferenvironment.wordpress.com/2009/02/02/solar-power-%E2%80%93-sustainable-green-energy-to-protect-our-economy-and-environment/>