

Solar Energy

Energy is the ability of a system to perform work. Energy can be transferred to other object or converted into other forms but energy can never just disappear. Solar energy is radiant light and heat from the Sun. It is an important source of renewable energy. Renewable energy is defined as energy collected from resources that naturally replenish on a human timescale, such as wind, rain, tides, waves, geothermal heat and of course solar energy. Solar power is the conversion of energy from the sun to usable electricity. The most common source of solar power utilizes photovoltaic cells to convert sunlight into electricity. Photovoltaic cells absorb the radiation from the sun and this radiation emits electrons, which are harnessed as electricity.

The biggest advantage of solar energy compared to fossil fuels or nuclear energy is its indefinite renewability. Solar panels require little maintenance after installation and optimization they are very reliable due to the fact they do not require any type of mechanical parts that can fail. They are also a silent producer of energy.

The primary disadvantage of solar power is that it cannot create energy during the night. The power generated is also reduced during cloudy weather. Solar panel energy output is maximized when the panel is directly facing the sun so that means that having it in a fixed location lowers the production value of energy. Solar energy must be used right away or it can be stored in large batteries that cost a lot of money. The more electricity you want to produce the more solar panels you will need. Solar panels require a lot of space.