

SUSTAINABLE TECHNOLOGIES

Sustainable technology is a technology that meets production requirements while still conserving natural resources. Sustainable technologies use environmentally friendly resources, mostly those that involve renewable energy sources.

Renewable energy is energy from resources that will not diminish or can be placed as we use them, within a time span relevant to humans. Some sources of renewable energy include:

Hydro (water):

The energy created by the flow of water. With electricity, the modern energy source, moving water is used to generate the power. Water turbines are attached to generators to produce a steady and reliable flow of electricity. Australia's famous Snowy Mountain Hydro Electric Scheme is an example of a sustainable energy source.

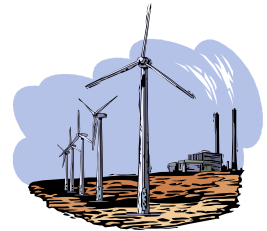


Solar energy:

Solar energy is energy from the sun. It may be used through a solar thermal system to heat water, air or oil for domestic and industrial uses or through a photovoltaic system (solar panels), which directly converts sunlight to electricity.

Wind:

Moving air causes the vanes of windmill to turn. Wind generators have been constructed and used for the production of electricity. Locations are selected on the frequency of the site being exposed to winds of appropriate strength.



Biomass:

Biomass is the name given to all plant and animal matter. Biomass energy is obtained from plant or animal material, waste from agricultural, industrial and forestry products, and human or animal wastes. This energy can be wood fuel, alcohol fuels, biogas and plant oils.

Tidal:

While tidal flows occur on every body of water on the Earth, the flow is really only useful as an energy source where the water moves through a constriction such as a channel to a coastal lake or a narrow entrance to a bay. Both incoming and outgoing water can be used to generate electricity.

Wave:

Waves are caused by wind blowing over bodies of water. Wave energy has been captured using a turbine to generate electricity as the rising and falling water levels caused by waves push air from and into the space above the water.

Geothermal:

Geothermal energy is heat from the earth that is used directly as hot water or steam, or used to produce electricity. While high temperature geothermal sites suitable for electricity are not widespread, low temperature sites almost everywhere in the world can provide heating and cooling for buildings.

