Glossary

MARINE (OCEAN) ENERGY

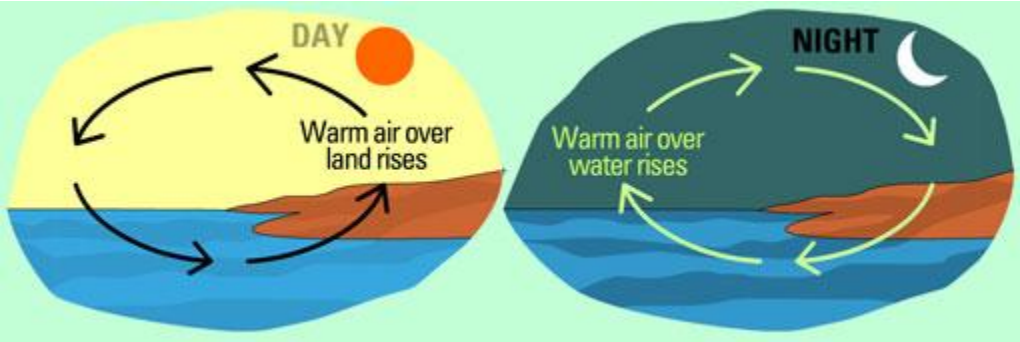
The oceans have incredible amount of power and energy potential. Even though the marine energy technology has not fully delivered on its potential, there has been, in recent time, a number of areas in marine energy that has kicked off. The UK is believed to be a leading player in Marine energy. Even though its capacity presently is only about 9megawatts, it is on course to deliver about 120MW by 2020. Two of these are Wave energy and Tidal Energy.

BIOMASS

Biomass fuels come from things that once lived: wood products, dried vegetation, crop residues, aquatic plants and even garbage. It is known as'Natural Material'. Plants used up a lot of the sun's energy to make their own food (photosysnthesis). They stored the foods in the plants in the form of chemical energy. As the plants died, the energy is trapped in the residue. This trapped energy is usually released by burning and can be converted into biomass energy.

WIND POWER

Wind is caused by huge convection currents in the Earth's atmosphere, driven by heat energy from the Sun. This means as long as the sun shines, there will be wind.



WATER POWER

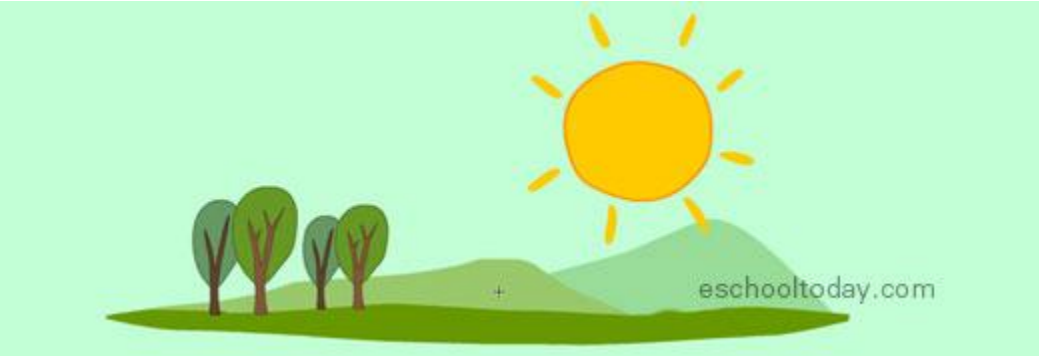
Moving water has kinetic energy. This can be transferred into useful energy in different ways. Hydroelectric power (HEP) schemes store water high up in dams. The water has gravitational potential energy which is released when it falls.

GEOTHERMAL ENERGY

Deep down in the earth's crust, there is molten rock (magma). Molten rock is simply rocks that have melted into liquid form as a result of extreme heat under the earth. This can be found about 1800 miles deep below the surface, but closer to the surface, the rocks layers are hot enough to keep water and air spaces there at a temperature of about 50-60 degrees F (10-16 degrees C). Geothermal technology takes advantage of the hot close-to-earth-surface temperatures to generate power.

SOLAR POWER

Solar power is energy from the sun. "Solar" is the Latin word for "sun" and it's a powerful source of energy. Without it, there will be no life. Solar energy is considered as a serious source of energy for many years because of the vast amounts of energy that is made freely available, if harnessed by modern technology.



NON-RENEWABLE ENERGY

Energy exists freely in nature. Some of them exist infinitely (never run out, called RENEWABLE), the rest have finite amounts (they took millions of years to form, and will run out one day, called NON-RENEWABLE)

COAL

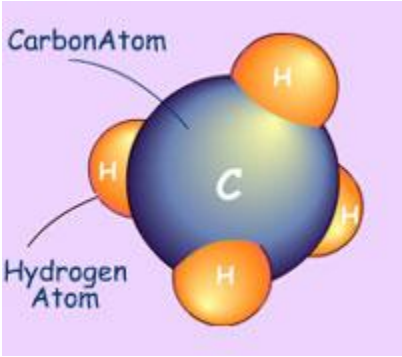
Coal is a combustible black or brownish-black sedimentary rock composed mostly of carbon and hydrocarbons.
Coal is made of the remains of ancient trees and plants that grew in great swampy jungles in warm, moist climates hundreds of millions of years ago. The chemical and organic process these dead organisms undergo to become coal is known as Carbonization.

PETROLEUM (CRUDE OIL)

Crude oil (a non-renewable resource) is usually found in underground areas called reservoirs. It is liquid in nature and yellowish black in colour. They are composed mainly of hydrocarbons and organic compounds.

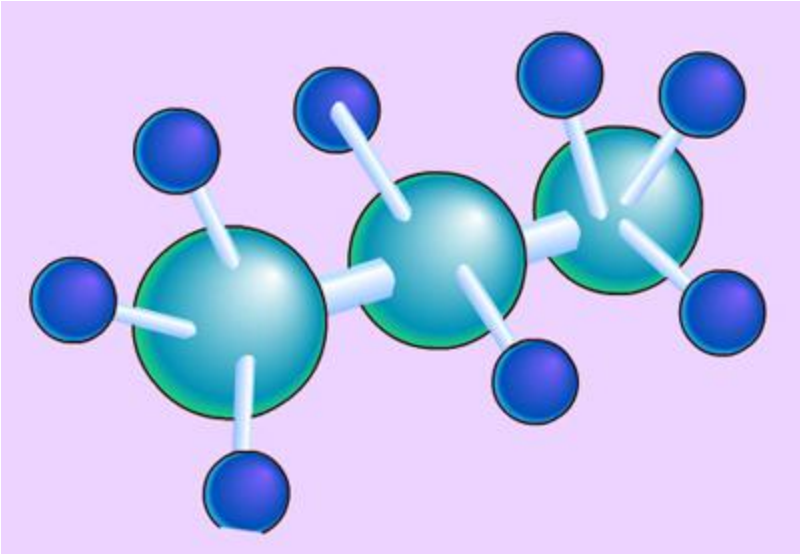
NATURAL GAS

Natural Gas is colorless, shapeless, and odorless in its pure form. Unlike other fossil fuels, natural gas is clean burning and emits lower levels of potentially harmful byproducts into the air. It is therefore called "Clean Gas'.



PROPANE

Propane is an energy-rich gas. Its chemical formula is C3H8.



It is one of the liquefied petroleum gases (LPGs) that are found mixed with natural gas and oil. Propane and other liquefied gases, including ethane and butane, are separated from natural gas at natural gas processing plants, or from crude oil at refineries. The amount of propane produced from natural gas and from oil is roughly equal.