Cactus Moon Education, LLC.
Understanding Green Technologies

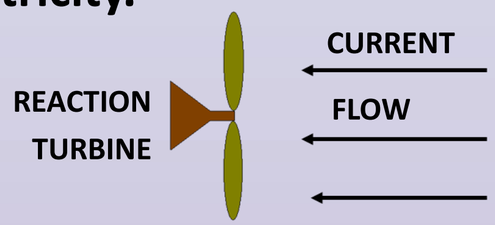
HYDRO POWER

(hyd02po)

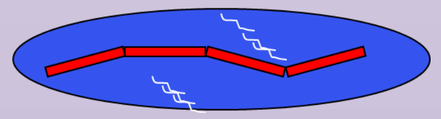
Hydroelectric energy comes from the energy in moving water.
The water can be a flowing river, the up and down motion of ocean waves, the water released from a dam, or the water currents caused by ocean tides.
This energy can be used to operate machinery, such as in a flour mill or make electricity using an electrical generator.

GLEN CANYON DAM, AZ

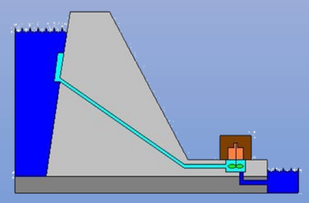
How it works:
The flow of current in a river can be used to power a reaction turbine and a generator submerged in the river to make electricity.



The up-down motion of the ocean surface can be used to power wave machines.



In a dam, the potential energy of the water behind the dam is converted into kinetic energy by letting the water fall down towards a turbine.
The flowing water spins the turbine which is connected to an electric generator



One of the earliest turbines was the water wheel that used water flowing in a river as the source of energy. The "undershot" water wheel uses the water flowing in the river under a wheel that is connected to mechanical equipment to grind grain. The "overshot" water wheel is where the river is diverted and made to flow over a wheel.

UNDERSHOT WATER WHEEL

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