ENERY GENERATION

TIDAL ENERGY

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WHAT IS ENERGY ?

- Energy is the quantitative property that must be transferred to an object in order to perform work on object .
- Energy is a conserved quantity; the law of conservation of energy states that it can not be created or destroyed , but can be converted into desired form .
- We can convert energy from potential to kinetic and vice versa.

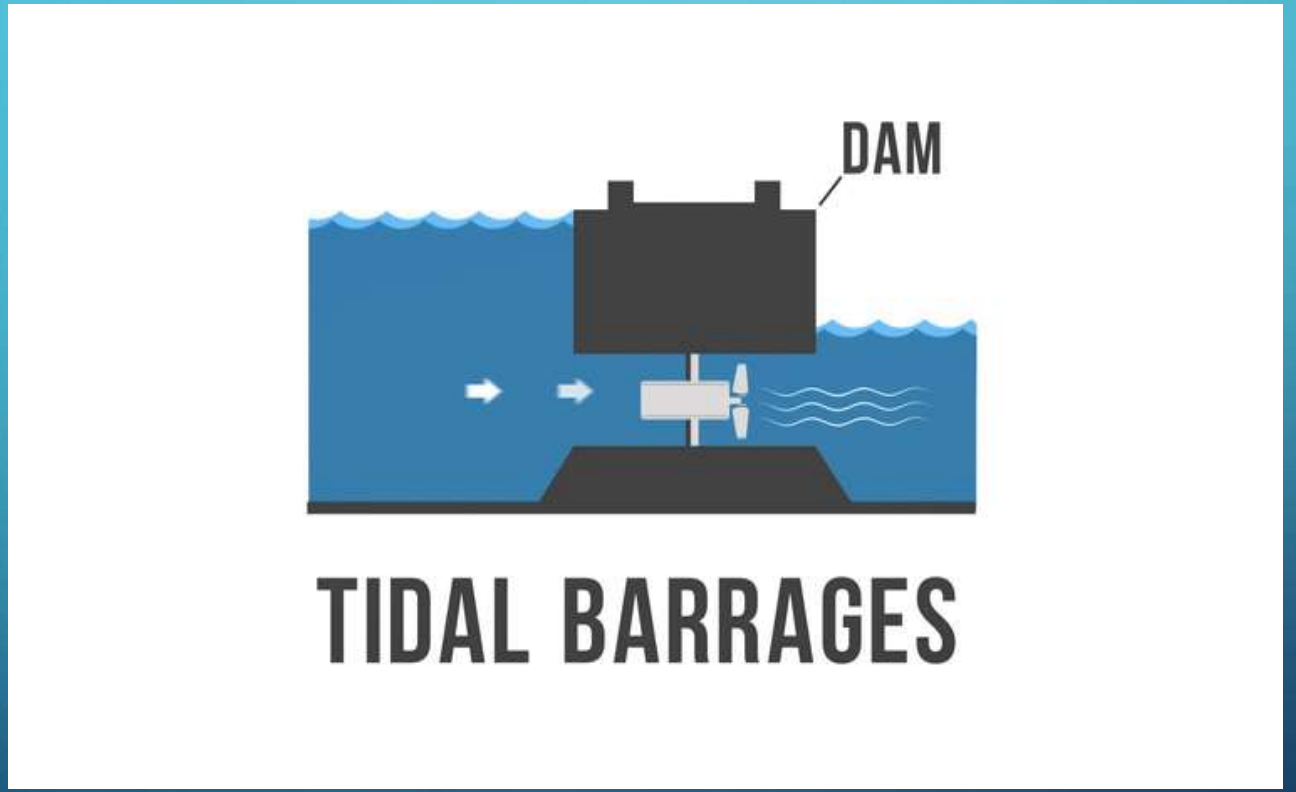
SOURCES OF ENERGY GENERATION

- SOLAR ENERGY
- WAVE ENERGY
- WIND ENERGY
- GEOTHERMAL ENERGY
- TIDAL ENERGY
- THERMAL ENERGY

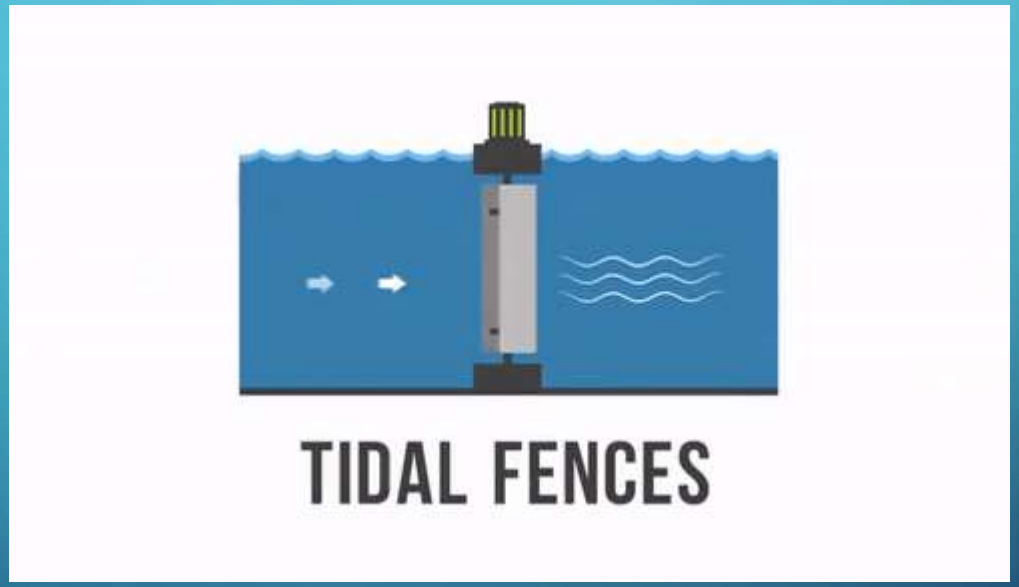
WHAT IS TIDAL ENERGY ?

- It converts energy from natural rise and fall of the sea or ocean tides into electricity
- Tides are caused by the combined effects of gravitational force exerted by the moon and the sun
- Tidal plants can only installed along coastlines as it often experiences too high and low tides on daily basis.
- It is very similar to wind turbine , the only difference is that it is under water.
- The tides under water rotates turbine which is attached to a generator.
- The turbine and generator converts the movements of water coming from change in tide , thus converting kinetic energy into electricity.

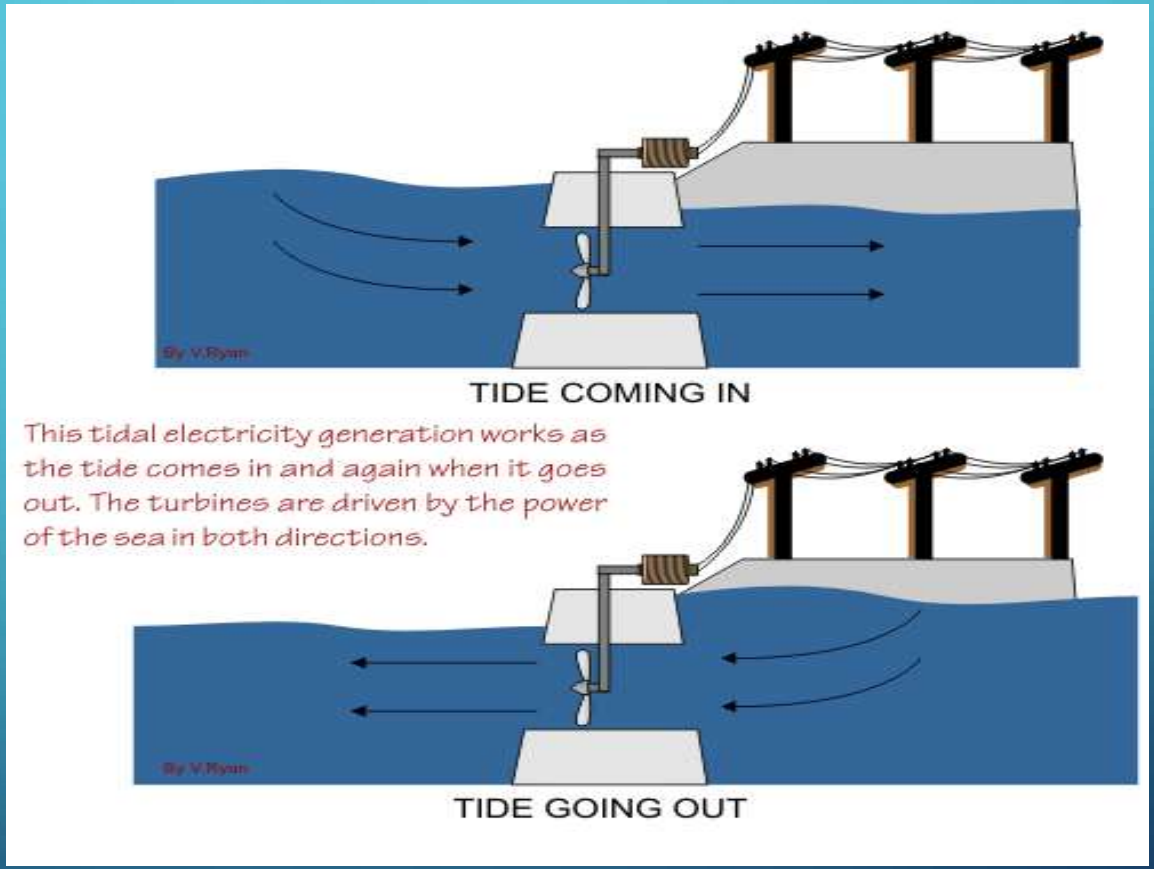
TYPES OF TIDAL TECHNOLOGIES



TIDAL FENCES



TIDAL TURBINES



ADVANTAGES OF TIDAL ENERGY

- Tidal energy is renewable energy.
- It is possible to generate electricity at low speeds .
- Tidal power is an environmental friendly energy source.
- Tidal currents are highly predictable

DISADVANTAGES OF TIDAL ENERGY

- High tidal power plant construction costs.
- It is an intermittent energy source.
- Unable to generate cost-effective energy.
- It still has some environmental effects.

Thank you for your attention .