

## **SNS COLLEGE OF TECHNOLOGY**



### (An Autonomous Institution) TIDAL ENERGY

The energy carried by the rise and fall of the tides can be used to run turbines to produce electricity. A dam is constructed across the mouth of a bay on the coast permitting the incoming and outgoing water to flow through small openings fitted with propellers that run electric turbines.

**During high tide**, when the level of water in the sea is high, sea-water flows into the reservoir of the barrage and turns the turbines. The turbines then turn the generator shaft to produce electricity



**During low tide,** the sea-water stored in the barrage reservoir is allowed to flow out into the sea. This flowing water also turns the turbines and generates electricity. Thus, as the sea-water flows in and out of the tidal barrage during high and low tides, the turbines rotate continuously to generate electricity.



At low tide, stored water flows out from reservoir into sea and turns the turbine



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#### Places in the world where tidal energy is harnessed are :

- 1. The bay of Fundy, Canada
- 2. La Rance, France
- 3. Indian Gulf of Cambay
- 4. Gulf of Kutch

#### Advantages:

- $\checkmark$  No pollution
- $\checkmark$  More efficient than Wind power because of density of water
- $\checkmark$  Predictable source of energy compared to wind and solar power