

WHAT IS TIDAL POWER?

Tidal power is electrical energy generated by tides. It is an example of “blue energy”.

It is mainly produced in power plants with a dam that allows flows of water to pass through during tides. The movement of the water activates turbines that produce electricity via a generator.

Disadvantages

- Intermittent, though predictable, power generation.
- High investment and maintenance costs.
- Significant environmental impact.

Advantages

Tidal power is a renewable energy which, once the dam has been built, does not emit any greenhouse gases.

France was a pioneer in this area, setting up its La Rance tidal power plant in 1966.

- Installed capacity: 240 MW
- Annual output: 540 GWh
- = Energy consumption of a town of 300,000 people.

However, South Korea’s Sihwa Lake tidal power plant holds the record for the highest installed capacity, at 1,320 MW.

Other plants use artificially created reservoirs to limit the environmental impact.

Summary:

Tidal power = Electrical energy generated by the movement of water during tides.

- Disadvantages: intermittent power generation; high costs and environmental impact.
- Advantages: renewable energy; no greenhouse gases.
- First plant in France set up in 1966.
- Record for highest installed capacity held by South Korea.