

HYDROELECTRIC ENERGY

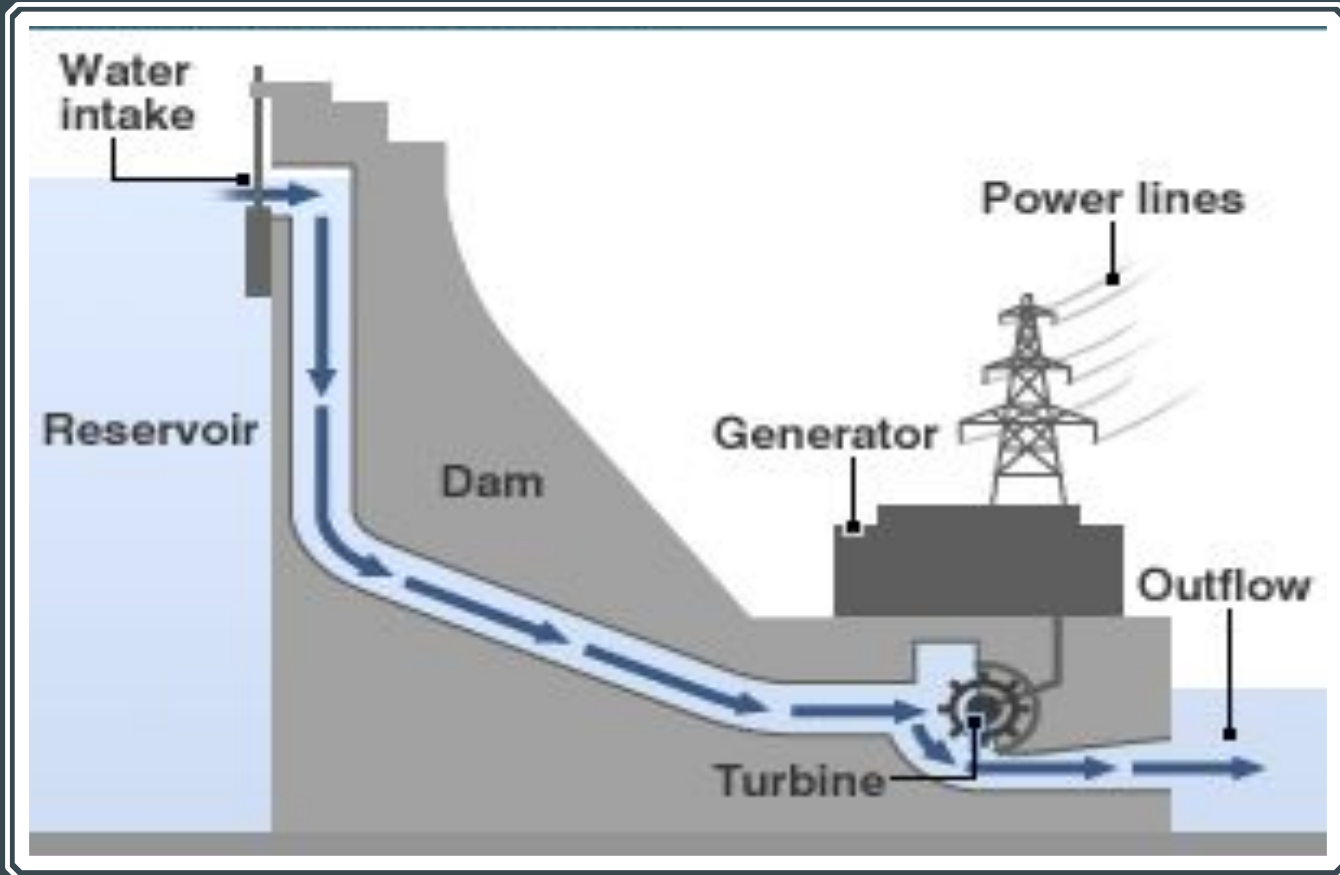
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A. KEY TERMS

- I. **Hydroelectric power**- Electricity produced by flowing water.
- II. **Turbine**- A machine for producing continuous power in which a wheel or rotor, is made by a fast-moving flow of gas, air, water, steam, or any other fluid.
- III. **Transformers**- device that transfers electric energy from one alternating-current circuit to one or more other circuits, either increasing (stepping up) or reducing (stepping down) the voltage.

B. DIAGRAM



C. PROS AND CONS OF HYDROELECTRIC ENERGY

Pros:

- A form of renewable energy
 - Because of this we will not have to worry about it becoming expensive due to the lack of energy.
- It is inexpensive
 - It can be improved by modern technology and not cost much.
- Does not create pollution
 - Hydroelectric plants do not produce toxins that can pollute the atmosphere.

Cons:

- Damages the ecosystem
 - Building of dams could cut off the fish paths leading to lack of reproduction or fish deaths.
- Causes droughts
 - Hydropower plants can redirect the water and cause droughts.
- Risk of floods
 - People who live downstream sometimes experience floods because of strong water currents that are released.

D. BEST LOCATION TO BUILD HYDRO PLANT

The best location for a hydroelectric station should be near a river or close to where the river narrows. The materials used in building the structure will determine how long it will last and how efficient it will be. When making the walls for the dam the materials that are used should be able to hold the force of the water. This means that the location should be around a place that can easily access cement and other materials that are stable. If we do not use stable materials disasters can happen like floods. It should also be located somewhere where the rock and land is strong enough to hold the water and withstand an earthquake.

QUIZ TIME!

1. Electricity produced by flowing water is called _____.
2. Where is the generator located on the diagram?
3. **True or False** It is expensive and cannot be improved by modern technology.
4. How can building of dams affect fish population?
5. Why would the best location for a hydroelectric station be near a river?

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