

Hydroelectric

by : Taylor Whitman & Ariaah
Jesus





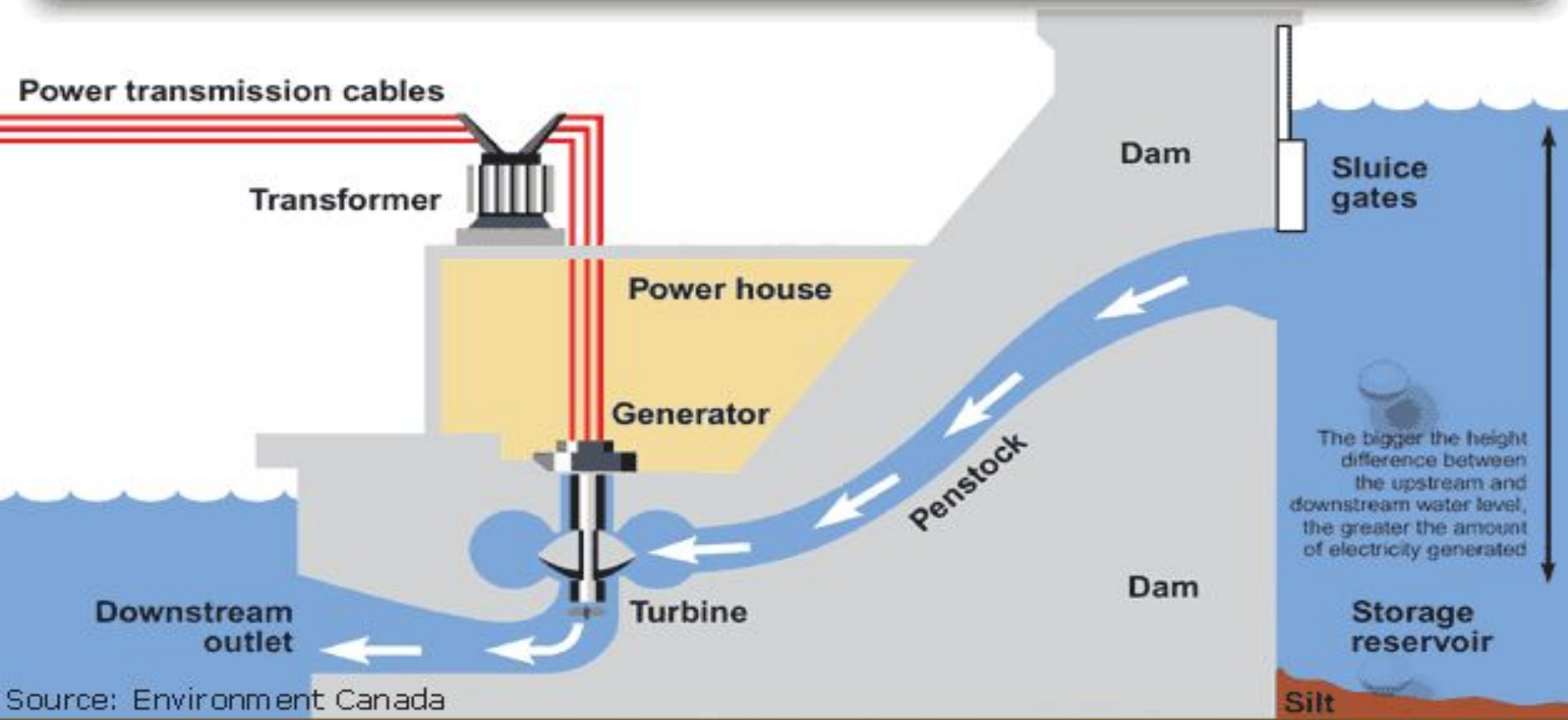
Key Terms

Hydroelectric: (adj.)- of or relating to production of electricity by water power.

Dam: (noun)- A body of water confined by a barrier.

Renewable: (adj.)- 1. Capable of being renewable. 2. Capable of being replaced by natural ecological cycles or sound management practices.

Hydroelectric power generation





Pros and Cons of Hydroelectric Powers:

Pros:

- Renewable Energy Source
- Clean Energy Source
- Cost Competitive Energy Source
- Contributes to development of remote communities
- Recreational Opportunities
- Fundamental Vehicle for sustainable development

Cons:

- Environmental Damage
- High Upfront Capital Costs
- Might cause Conflicts
- May Lead to drought
- Risks of floods and lower elevation
- Carbon Dioxide and Methane emission



Best Location:

- The best place to build a hydroelectric power plant would be next to or near a river.
- In this location it will enable the collection of water or the diversion of the river. If a plant was used to maximize water, then the volume located way above the dam should be calculated to ensure the dam doesn't suffer from the insufficient water supply.
- It should also be located in a place where the land or rock structure on which the dam is built on is strong enough to hold the weight as well as the force of the water in the dam.
- Hydroelectric dams are usually big, to make them lose a lot of the water evaporation.



Mini Quiz:

1. What does the term **Hydroelectric** mean?
2. Name one pro and con of hydroelectric power plants.
3. Where is a good place to put the plant?
4. Why are hydroelectric dams usually big?
5. Depicted in the diagram, what type of cables are connected to the transformer that gives power to the generator.



Citations:

- https://prd-wret.s3-us-west-2.amazonaws.com/assets/palladium/production/s3fs-public/styles/full_width/public/thumbnails/image/wss-ws-hydro-typical-powerplant.gif
- RinkeshA true environmentalist by heart ❤️. Founded Conserve Energy Future with the sole motto of providing helpful information related to our rapidly depleting environment. Unless you strongly believe in Elon Musk's idea of making Mars as another habitable planet. "Various Pros and Cons of Hydroelectric Power." *Conserve Energy Future*, 18 Feb. 2017, www.conserve-energy-future.com/pros-and-cons-of-hydroelectric-power.php.
- Kinyanjui, Loise. "Factors Affecting a Selection Site for a Hydroelectric Station." *Sciencing*, 2 Mar. 2019, sciencing.com/info-8619867-factors-affecting-selection-hydroelectric-station.html.