



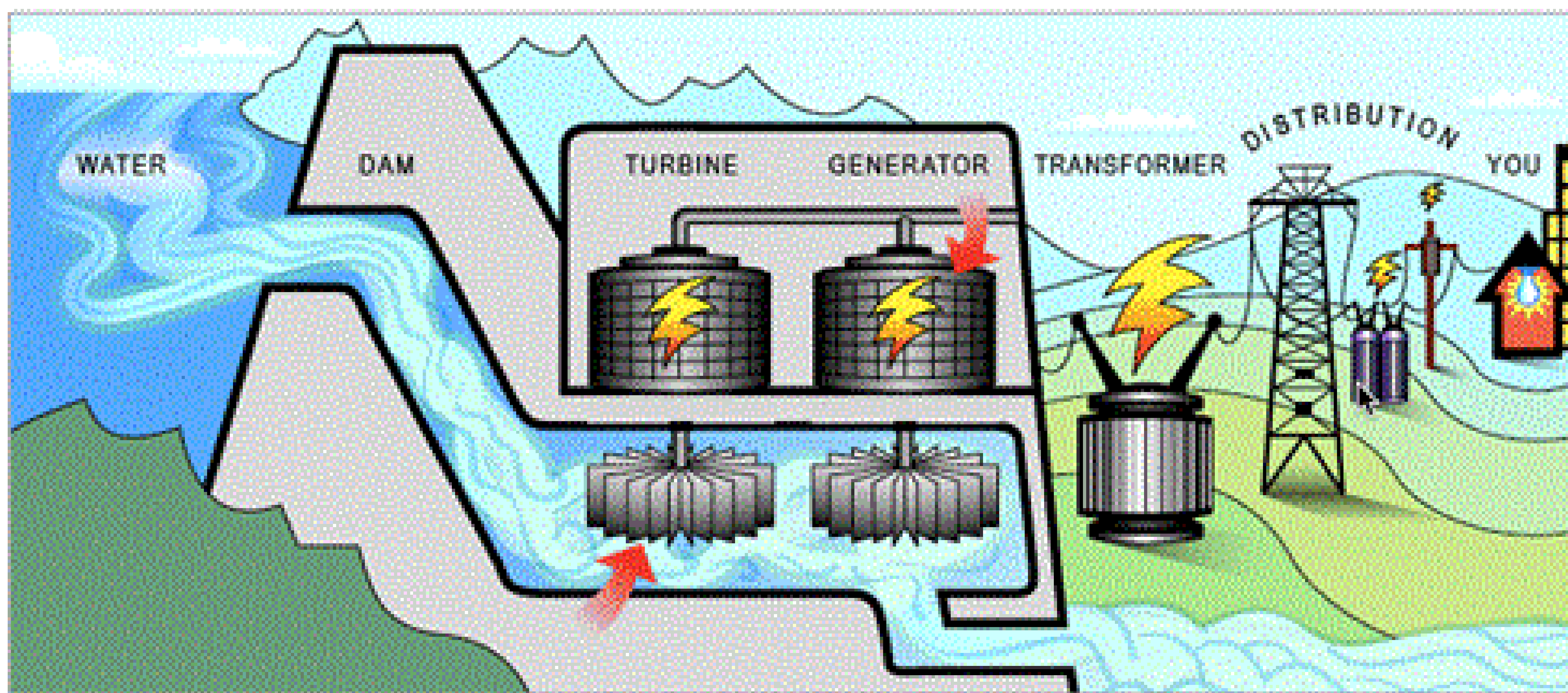
# Hydro Energy



## What Is Hydro Energy?

The power of water found in, rivers, waterfalls, and streams can create electricity.

- Hydroelectric Dams:** Water builds up in an artificially flooded lake and is directed towards a dam which contains a turbine and generator. When water flows through the dam, it causes blades connected to the turbine to spin. This powers an electrical generator creating electricity.
- Run-of-River:** Uses the natural stream flow and elevation differences found within the stream. Water physically flows past the blades of the in-stream turbine which powers an electrical generator creating electricity. Removes the need to dam a river.
- Micro-Hydro:** Small scale installations where water enters a pipe at a higher elevation and flows quickly down a gradient to spin the blades on a turbine lower down, thereby generating electricity. Removes the need to dam a river.



## What Is The State Of Hydro In Nova Scotia?

Nova Scotia Power owns and operates **33** hydroelectric plants on 17 river systems across Nova Scotia. This makes up **9%** of the annual energy supply for Nova Scotia.

There are a number of hydroelectric plants on nearby river systems including the Mersey (several stations) and LaHave (Morgan Falls near New Germany) watersheds.

In Bridgewater, electricity was generated at the Conquerall Mills hydroelectric power plant on the Petite River. However, this location has not been operational since 1974.



## The Maritime Link:

It will be an overland and underwater cable that gives Nova Scotia access to hydroelectric power from the Lower Churchill Hydroelectric Project in Newfoundland and Labrador. This connection will provide Nova Scotia with 8% to 20% of the province's electricity needs. The Maritime Link will also create a second connection point to the North American grid, increasing reliability. The first power from the project is expected in 2017.