

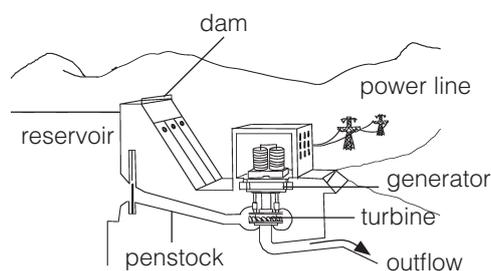
Using Energy From Moving Water

Hydroelectric power stations are built near water sources like large rivers with a high volume of water.

Moving water has kinetic energy. But moving water that is forced by gravity to flow downwards has even more kinetic energy.

In a hydroelectric power station, moving water moves through a narrow tube called a **penstock**. The downward movement of water passes through the blades of the turbine, turning them.

The turbines are connected to the generator. The generator generates electrical energy that is sent to homes and factories.



The inside workings of a hydroelectric station

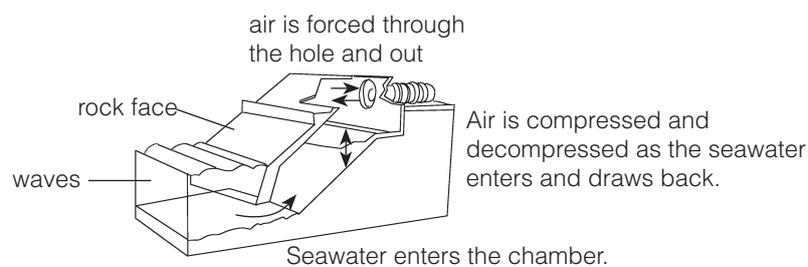
The ocean tides provide a regular source of power generation. The movement of water flowing in and out of the coastal region can turn turbines.

Wave control stations are built into a rock face on the shoreline. It has an opening that allows seawater to freely enter and leave a chamber.

The level of water rises inside the chamber when seawater enters it. The air at the top of the chamber becomes compressed when water enters the chamber.

The compressed air is then forced through a hole. At the end of the hole are the turbines. The movement of the air turns the turbines.

When the waves in the sea outside draw back, the water inside the chamber recedes too. The air is sucked back under pressure into the chamber. The constant movement of water results in a constant stream of air in both directions. This produces enough movement in the turbines to drive a generator.



The inside workings of a wave power station