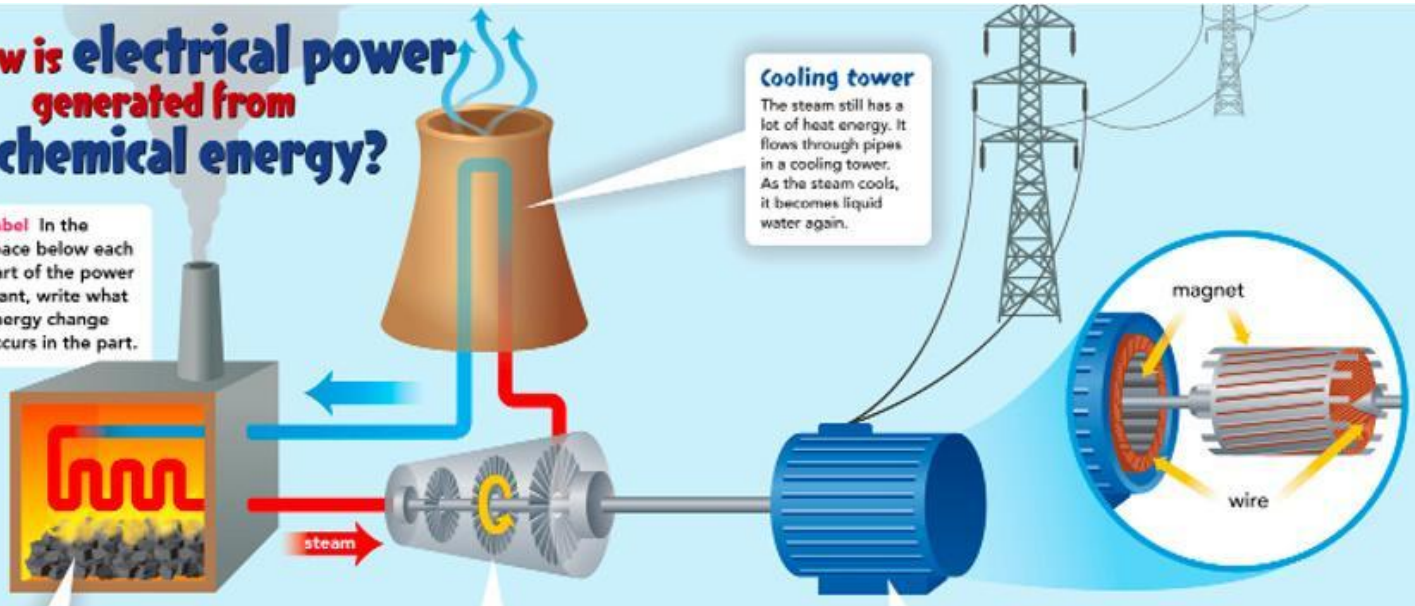
How is electrical power generated from chemical energy?

Label In the space below each part of the power plant, write what energy change occurs in the part.



Cooling tower
The steam still has a lot of heat energy. It flows through pipes in a cooling tower. As the steam cools, it becomes liquid water again.

Boiler
In a coal power plant, the primary source of energy is the coal. When coal is burned in the plant, chemical energy changes to heat that turns water into steam. Because the water vapor is so hot, it has a lot of energy.

Turbine
The hot steam flows through a turbine. The **turbine** is a device that spins as the gas flows and changes the heat energy of the steam into energy of motion.

Generator
As the turbine spins, it turns a shaft that causes motion in the generator. A **generator** is a device that changes energy of motion into electrical energy. Inside the generator, a magnet is surrounded by a coil of copper wire. As the magnet turns, an electric current is generated in the wire coil.

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