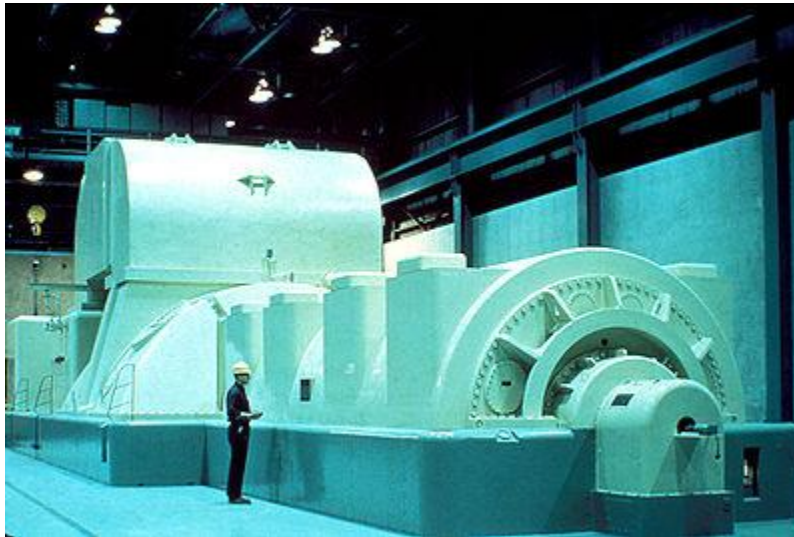


# GENERATORS

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**“In electricity generation, an electrical generator is a device that converts mechanical energy to electrical energy, generally using electromagnetic induction. The reverse conversion of electrical energy into mechanical energy is done by a motor; motors and generators have many similarities. A generator forces electric charges to move through an external electrical circuit, but it does not create electricity or charge, which is already present in the wire of its windings. It is somewhat analogous to a water pump, which creates a flow of water but does not create the water inside. *The source of mechanical energy may be a reciprocating or turbine steam engine, water falling through a turbine or waterwheel, an internal combustion engine, a wind turbine, a hand crank, compressed air or any other source of mechanical energy.*”**

[http://en.wikipedia.org/wiki/Electrical\\_generator](http://en.wikipedia.org/wiki/Electrical_generator)



## **BASIC PRINCIPLE:**

Using Faraday’s Law of Electromagnetic Induction you must somehow get a magnet and a conducting coil to move relative to one another in order to produce electrical energy. Mechanical Energy → Electrical Energy