

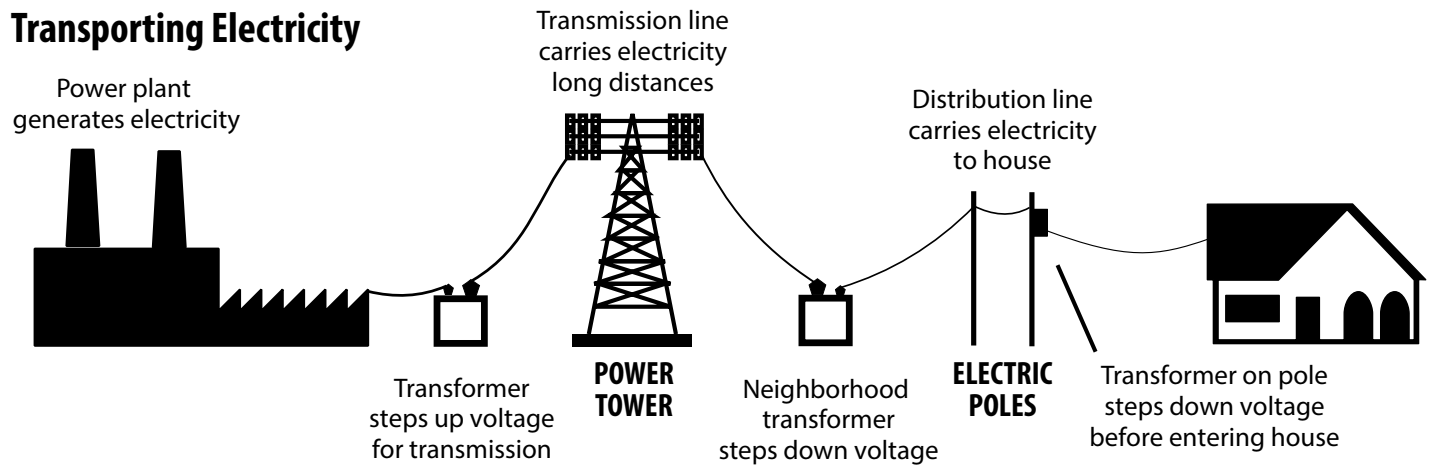
# Electricity Travels Through Wires

The spinning turbines make electricity. It flows into **power lines**. The electrons flow through the power lines to our houses. They flow through the wires in our houses and back to the power plant. Then they start their journey again.

There are many different types of power lines. The power plant makes electricity. The electricity flows through **transmission lines** held up by **power towers**. The transmission lines carry large amounts of electricity to electric poles in cities and towns.



## Transporting Electricity



**Distribution lines** carry small amounts of electricity from the **electric poles** to houses and businesses. **Transformers** make sure the electricity is in the proper units (**voltage**) for us to safely use.

# Electricity

## Electricity Travels in Loops

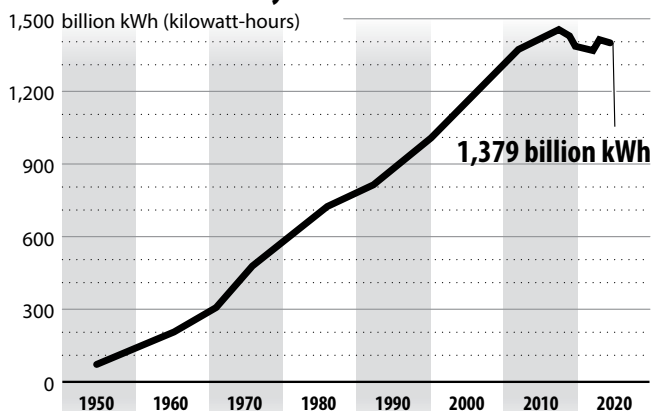
Electricity travels in closed loops, or **circuits** (from the word circle). It must have a complete path from the power plant through the wires and back.

If a circuit is open, the electricity can't flow. When we flip on a light switch, we close a circuit. The electricity flows through the light and back into the wire. When we flip the switch off, we open the circuit. No electricity flows to the light. It flows straight through the switch.

## We Use Electricity Every Day

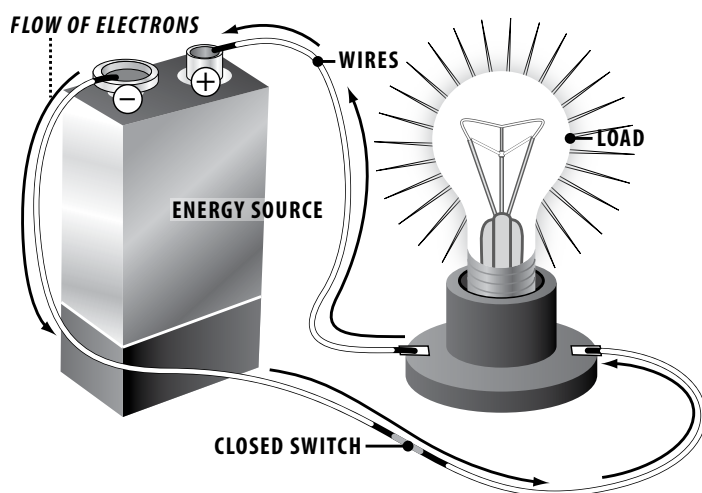
Electricity does a lot of work for us. We use it many times each day. It lights our homes, warms and cools our rooms, and helps us keep them clean. It runs our TVs, DVD players, video games, computers, and fax machines. It cooks our food and washes the dishes. It can power our lawn mowers and leaf blowers. It can even run our cars. We use a lot of electricity every year.

### Residential Electricity Use

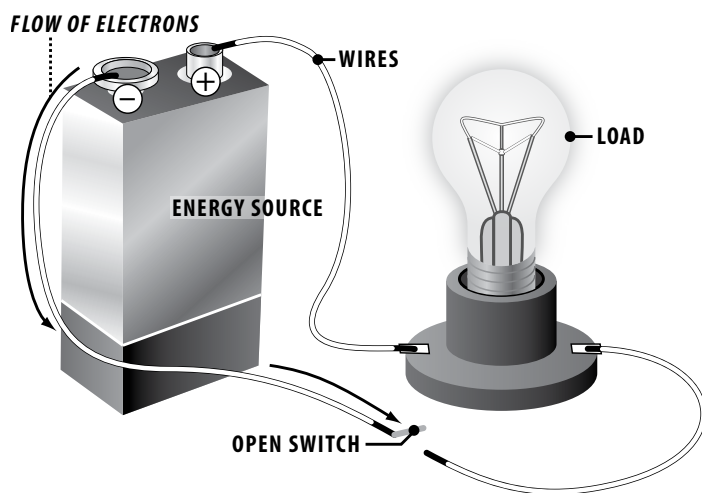


Data: Energy Information Administration

### Electrical Circuits



A closed circuit is a complete path allowing electricity to flow from the energy source to the load.



An **open circuit** has a break in the path. There is no flow of electricity because the electrons cannot complete the circuit.