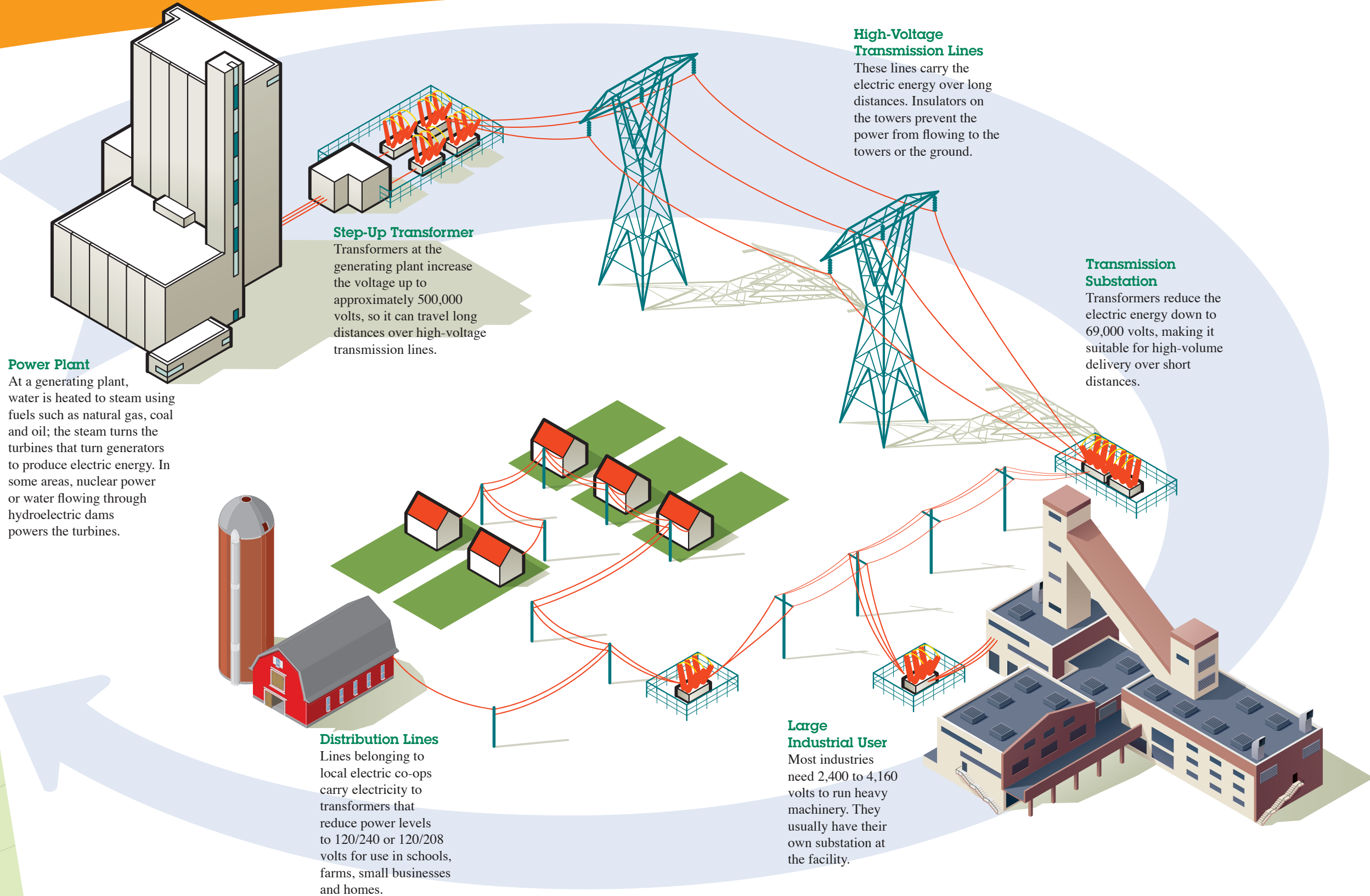


How dependable electricity reaches you

Most of us take reliable electric power for granted. This illustration shows how the electricity reaches you.



Power Plant

At a generating plant, water is heated to steam using fuels such as natural gas, coal and oil; the steam turns the turbines that turn generators to produce electric energy. In some areas, nuclear power or water flowing through hydroelectric dams powers the turbines.

Step-Up Transformer

Transformers at the generating plant increase the voltage up to approximately 500,000 volts, so it can travel long distances over high-voltage transmission lines.

High-Voltage Transmission Lines

These lines carry the electric energy over long distances. Insulators on the towers prevent the power from flowing to the towers or the ground.

Transmission Substation

Transformers reduce the electric energy down to 69,000 volts, making it suitable for high-volume delivery over short distances.

Distribution Lines

Lines belonging to local electric co-ops carry electricity to transformers that reduce power levels to 120/240 or 120/208 volts for use in schools, farms, small businesses and homes.

Large Industrial User

Most industries need 2,400 to 4,160 volts to run heavy machinery. They usually have their own substation at the facility.