

Electricity 101

The electricity we use every day is generated in power plants by converting resources such as water, sun, coal, oil, natural gas and wind into electrical power. It is generated by a large magnet that spins inside coils of wire. High-pressure steam or water is used to turn a turbine – a large fan – attached to the generator to get the magnet spinning. As the magnet rotates inside the loops of wire, electric current is produced.

This electric current is sent through a vast power grid of high voltage transmission lines to a substation in your area. At the substation, the voltage is lowered, then overhead or underground distribution lines carry the electricity to your home or work.

Power lines leading to residential areas generally carry 4,200 to 34,500 volts. Within neighborhoods, the voltage is decreased further with step-down transformers located on the top of poles (or in a vault on the ground) to the typical 120 to 240 volts for safe home use.

For more information, please visit us on the Web at www.pacificpower.net.

