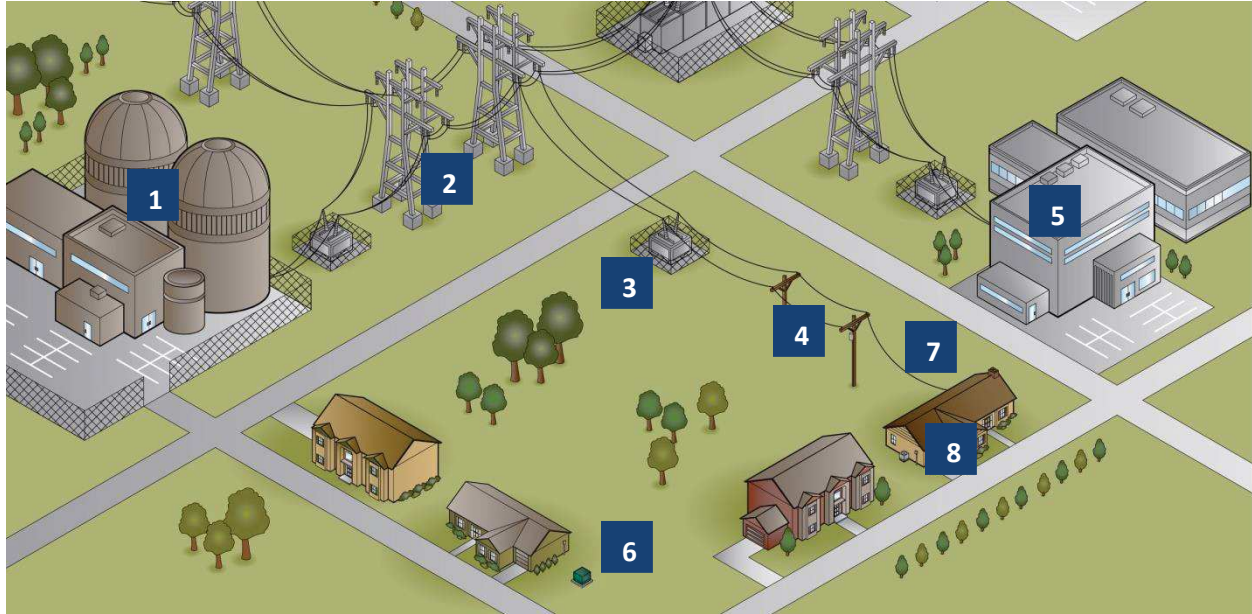


Energy Education Resources

Providing the Power You Need to Live Your Life

Electricity – everyone uses it but may not think much about it. Generating and delivering electricity to your home or school is a complex process that requires sophisticated distribution systems. Here's how our power production process works.



(1) Power generating stations. Duke Energy produces electricity at nuclear, fossil-fueled and hydroelectric generation stations.

(2) Transmission lines. From the generating stations, large amounts of electricity are transported on high-voltage transmission lines to local substations. Duke Energy's transmission lines connect our utilities to customers and with other electric utilities to help make the electrical grid more reliable.

(3) Substations. Next, substations – banks of electrical equipment – convert the transmission line voltage to lower levels that can be used by local communities. Substations also control the flow of electricity and protect the lines and equipment from damage

(4) Power lines. Distribution power lines, which can be installed above ground or underground, carry electricity to your neighborhood.

(5) Your home or school. (6) Transformers convert the distribution level voltage to levels that can be used inside your home or business. Transformers can be mounted on poles or placed on the ground. This voltage is carried from the transformer through an underground or overhead power line – also called a (7) service drop – to (8) individual meters.