



## Outage Restoration Information

### WHAT TO EXPECT DURING A POWER OUTAGE

Occasionally the electrical power distributed to your home or business can fluctuate or be interrupted by a variety of causes, even on a sunny day.

**Non-weather-related power outages** can be caused by tree contact with power lines; equipment failure or damage by outside parties or animals; underground cable failures; or Xcel Energy-initiated outages needed to ensure public safety, restore services or maintain equipment.

**Weather-related power outages** can be caused by lightning strikes, extreme heat, ice, high winds, tornadoes, etc., damaging many power lines over a large area. Since weather-related outages can be widespread, repairs may be more complex and restoration may take from several hours to several days in extreme situations.

#### Report All Outages

You can help us get a jump on power restoration by telling us about outages. Just call **1-800-895-1999** and follow the prompts — our automated phone reporting system lets you report outages in less than 60 seconds. Once we've identified the cause of the problem, the system will provide you with an estimated restoration time.

In larger communities, when a power outage impacts an entire feeder (feeders distribute power from substations to large numbers of people), an alarm goes off at our control center.

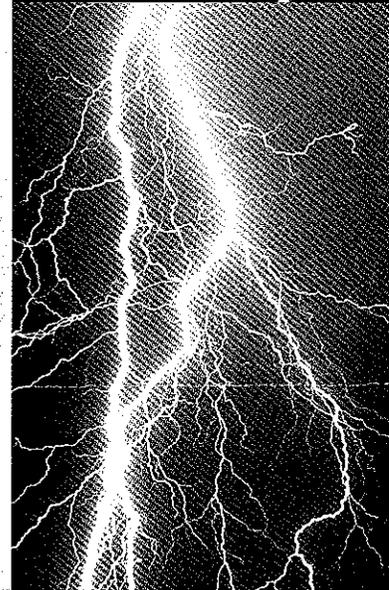
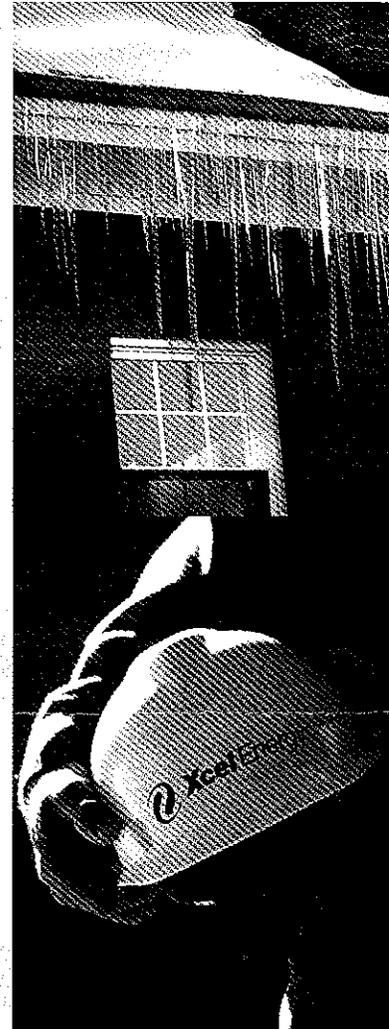
The control center then dispatches the next available crew to assess the problem.

#### Power Restoration Process

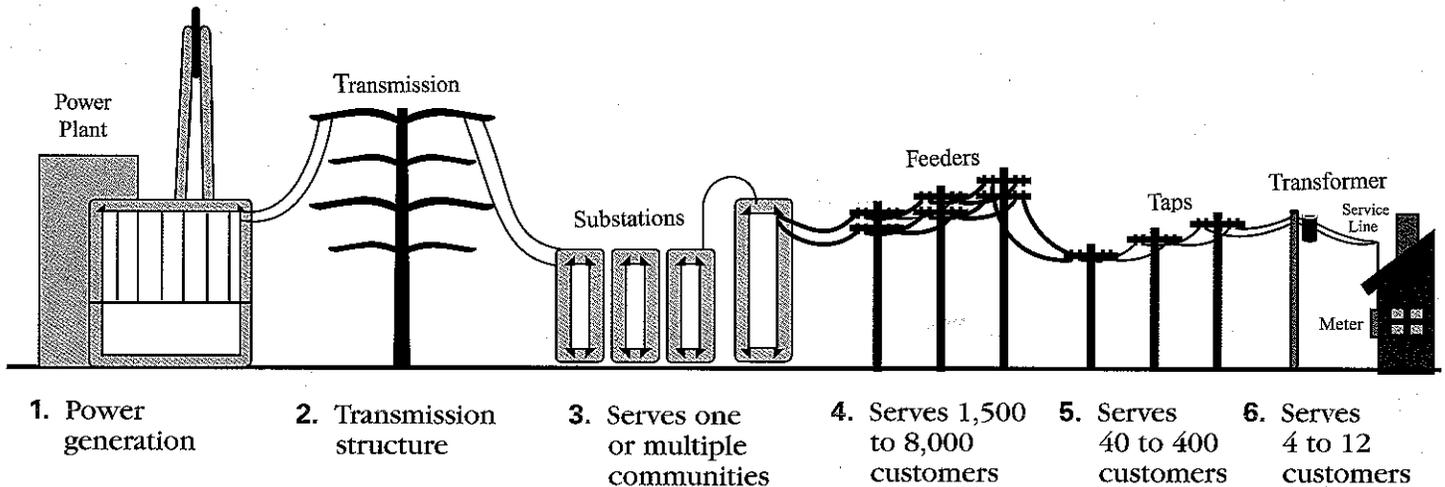
Xcel Energy repairs power lines as safely and as rapidly as possible, working around the clock until power is restored to all customers. We give top priority to situations that threaten public safety, such as live downed wires. Then we prioritize repairs based on what will restore power to the largest number of customers most quickly.

In general we repair **transmission lines** first because they serve the largest number of customers. These high-voltage lines carry electricity in bulk from power plants to regional substations that may serve one or multiple communities. **Feeder lines**, major power lines that can serve thousands of customers, come next. Then we repair **tap lines**, which serve residential neighborhoods and businesses, and typically serve from 40 to 400 customers. We follow up by repairing damage to individual **service wires**, which carry power from a tap line to a home or business.

Thank you for your patience during outages. We value you as an important customer and we appreciate your efforts to ensure any power outages get called into the Xcel Energy outage line immediately.



# ELECTRIC DISTRIBUTION SYSTEM



## How the Electric Distribution System Works

Power is carried to your home or business through an electric distribution system. Electricity is generated at a power plant and distributed by high-voltage transmission lines through various distribution systems until it reaches your home or business.

1. The **power plants** generate energy and distribute it to substations via high-voltage transmission lines.
2. The **transmission lines** are used to distribute power to strategically located area substations that may serve one or multiple communities.
3. The **substations** distribute power to major power lines called feeders.

4. A **feeder** takes power from the substation and distributes it throughout an area serving several hundred to several thousand customers.
5. **Taps** are lines branching off feeders and typically serve 40 to 400 customers, including businesses and residential neighborhoods.
6. **Transformers** convert electrical power from high voltage to the lower voltages used in your home or business. A single transformer typically serves 4 to 12 customers through **service wires**.

For outage information or restoration estimates, or to report an electrical disturbance or downed wires, please call **1-800-895-1999**.



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