

Restoring the Power

A step-by-step guide to how utilities set their outage priorities

Heavy snowfall, strong winds and devastating floods can knock out your power. Restoring power after an outage is a complex job. It involves more than simply throwing a switch or removing a tree from a line. The goal is to restore power safely to the greatest number of people in the shortest time possible. Individual households may receive special attention, if loss of electricity poses an immediate danger to the health of the occupants.

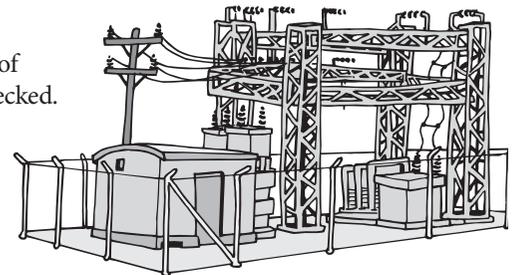
While power restoration priorities differ from utility to utility, most follow a plan similar to the one below. If you lose power this winter, report the outage to your utility. Please be patient when calling. Because so many people can be affected by an outage, phone lines may be busy.

Step 1

Transmission towers and lines supply power to one or more transmission substations. These lines seldom fail, but they can be damaged by strong winds. Thousands of people can be served by one high-voltage transmission line, so if there is damage here, it gets attention first.

Step 2

A utility may have several local distribution substations, each serving thousands of customers. When a major outage occurs, local distribution substations are checked. A problem here could be caused by a failure in the transmission system supplying the substation. If the problem can be corrected at the substation level, power may be restored to a large number of people.



Step 3

If the problem cannot be isolated at the substation, main distribution supply lines are checked. These lines carry electricity away from the substation to a group of consumers, such as a town or a housing development. When power is restored at this stage, all consumers served by this supply line could see the lights come on—as long as there is no problem farther down the line.

Step 4

Secondary distribution lines carry power from the main lines to utility poles or underground transformers outside houses or other buildings. Line crews fix these remaining outages based on restoring service to the greatest number of members at a time.





Inclement weather often damages utility systems, requiring KPUD crews to identify and repair the problems.

Photo by Ron Ihrig

Step 5

Sometimes, damage will occur on the service or “tap” line between your house and the transformer on the nearby pole. This can explain why you have no power, and your neighbor does. If this is the case, you must notify your utility you have an outage, so a service crew can repair it. In many cases, homeowners are financially responsible for repairs to this line.



Outage Preparation

Although power outages are inconvenient and unpleasant, planning ahead can help make the best of a bad situation.

To better cope in the cold and darkness, make sure your home is equipped with a power outage kit. It should include:

- ▶ A flashlight, an oil- or battery-powered lamp or lantern, and extra batteries.
- ▶ Candles and matches. Use candles on a flat, stable, non-flammable surface.
- ▶ A battery-powered radio.
- ▶ Easily accessible emergency phone numbers for your utility, doctor, fire and police.
- ▶ A telephone connected directly to the phone jack. Cordless phones and phones with answering machines rely on electricity to operate.
- ▶ A first-aid kit and prescription medications. If the outage is caused by bad weather, road travel may not be possible for several days.
- ▶ Extra blankets, sleeping bags and warm clothes. If you are without heat, close off one room to live in, and wear extra layers of clothes.
- ▶ Clean drinking water. Have at least one gallon of fresh water available for each person per day.
- ▶ A manual can opener and non-perishable food. A camp stove and fuel may be handy, but be sure to use it outdoors.
- ▶ A cooler for storing frequently used foods. Food will keep several hours in a closed, full refrigerator, and up to two days in a closed, full freezer. It will spoil more quickly if the door is opened.
- ▶ Firewood, if you have a fireplace or wood stove.