

GUIDE TO POWER OUTAGES

HOW TO STAY SAFE AND STAY
INFORMED DURING POWER LOSS





INTRODUCTION

Either as a result of extreme weather or as a by-product of an unexpected accident, power outages can wreak havoc on a community and increase pressure on utility providers.

A recent study found that more than 36 million people were affected by more than 3,500 power outages over the course of a year. The average outage lasted about 80 minutes—a long time to be without power, especially in adverse weather conditions.

A sudden power outage can be frustrating and inconvenient, but advance preparation can help mitigate its impact and keep you and your family safe, especially if the outage is an extended one.

This guide will help you navigate the uncertainty of a power outage by exploring several important topics:

- What to do during a power outage
- Preparations you can make before an outage occurs
- The role of the utility provider during an outage and how they solve the problem
- What happens inside and outside your home
- Power lines and other safety concerns
- The aftermath of a power outage

With this information, you can remain informed, aware, and comfortable during and after a power outage situation.



HOW POWER OUTAGES HAPPEN

Many things, both natural and man-made, can cause power disruptions. How the power is lost can affect how long it takes for service to be restored.

Here are the most common causes of power outages:

- **Weather:** High winds, severe storms, and heavy snow and ice can lead to widespread power outages; one of them is the most likely culprit.
- **Lightning:** A strike on electrical equipment, wires, or transmission towers can lead to an outage.
- **Trees:** If limbs come in contact with power lines, either through storm damage or trimming by an untrained person, an outage can occur.
- **Vehicles:** A car or truck crashing into a utility pole can cause outages.
- **Animals:** Although most electrical equipment is protected, small animals like squirrels can cause a short circuit.
- **Earthquakes:** While rare, an earthquake of any size can damage lines.
- **Digging:** Underground cables can be cut by big excavation projects or even gardening. Call 811 before doing any digging.
- **High power demand:** During times of excessive power demand, like heat waves or extreme cold, electrical equipment may malfunction due to the stress on the system.

BE PREPARED

Don't wait until the power goes out before making a plan to deal with the dark. Taking preventative steps will make living through the outage easier for yourself and your family.

Put together an emergency outage kit that can easily be accessed if there's a power loss. For a full list of what should be inside your kit, consult the Red Cross website. Here are some of the most important elements:

- Flashlights and extra batteries
- Matches or lighters
- Water
- Battery-powered radio
- First-aid kit
- Nonperishable food
- Blankets
- Copies of personal documents

Fully charge all mobile devices when storms are expected, and if you don't already have one, consider purchasing a battery-powered charger for your phone. Make sure your utility provider has your most up-to-date contact information, including cell phone numbers and email addresses.





WHEN THE POWER GOES OUT

If the lights go out suddenly, the first thing to do is keep calm.

Then, find your electrical panel and check your breakers to determine if the issue is localized to your home. If you haven't tripped a breaker, look outside and attempt to determine if your neighbors have lost power. If it seems like an outage, call your utility provider to report it.

THE ROLE OF THE UTILITY PROVIDER

All electric companies have detailed plans in place in case there's a power outage. The goal of all utility providers is to ensure a quick response that places a priority on the safety of customers and employees.

Everyone would like their power restored as fast as possible, but even if you immediately notify your provider of an outage, a protocol must be followed. Trust that your utility service is working its hardest to safely restore power to as many customers as possible as fast as the situation allows.

Here is the general course of action a utility provider will follow if there's a power outage:

- Most providers will first double check that power isn't flowing through downed lines to prevent injuries and fires.
- Next they will usually repair transmission lines and distribution substations. These are critical lines that move power from plants to large numbers of customers.
- Providers may prioritize restoring power to important community services like hospitals, fire stations, police departments, and other essential facilities.
- Bringing the largest possible number of people back to full power is the next goal. Service is steadily restored to neighborhoods, businesses, and industries, with small groups of customers and individual residences next, until everyone is back online.

Line workers on the job are risking life and limb to get the power restored, so they should be treated with respect and given space to do their jobs.

Remember, not only are line workers attempting to restore your power, but they're also working for your neighbor, who may have a life-threatening medical condition and need power to run important machinery. Patience is key during what can be a frustrating situation.

INSIDE YOUR HOME

Click! Just like that, the power is out inside your home and in your neighborhood. Keep calm, grab a flashlight, and find your emergency kit. From there, keep these tips in mind to stay safe and wait out the disruption:

While inside your home during a power outage:

- **Keep the refrigerator and freezer shut:** Your fridge can keep its contents cool for four hours, while the freezer has 36–48 hours. If you're in the path of a severe storm and power outages are predicted, you can pack perishable food into a cooler with ice.
- **Unplug appliances and electronics:** Power surges that may damage electronics can occur when power is restored. Leave one lamp plugged in so you'll know when the service has been repaired.
- **Avoid carbon monoxide poisoning:** Do not use generators or grills inside your home. Do not use a gas stovetop or oven for heating purposes.
- **No candles:** Using candles may seem like a good idea, but they're a fire hazard and don't emit that much light. Stick to flashlights or a kerosene lantern.
- **Stay informed:** Listen to the radio for the latest weather and news updates. Some utility providers also put status updates on their websites or social media that will be helpful.
- **Make weather adjustments:** If it's hot, take refuge in the basement, if it's safe. Close the blinds on the sunny side of your home and maintain a steady intake of fluids. If it's cold, dress in layers and make sure warm blankets are available to everyone.
- **Avoid flooded areas:** If you have a basement, avoid any standing water that has accumulated during a storm. The water could be energized if outlets are submerged.

MEDICAL DEVICES:

If someone in your home depends on a medical device a power outage can be life threatening. If possible, notify your local Public Health Authority to request evacuation prior to adverse weather events, and seek emergency services immediately if the situation becomes dangerous.

- Notify your electric company and fire department to let them know you have a medical device that needs power (e.g., ventilator, apnea monitor).
- Read your user instructions or call your distributor or device manufacturer to find out if your device can be used with batteries or a generator.
- Locate a generator if possible.
- When the power is restored, check to make sure the settings on your medical device have not changed (often medical devices reset to a default mode when power is interrupted).
- Always use battery powered flashlights or lanterns rather than gas lights or torches when oxygen is in use (to minimize the risk of fire).

BACKFEEDING THE GRID

During power outages, many people use generators as a backup power source. However, portable generators being used improperly, or permanent generators that are improperly installed can cause backfeeding, which is potentially hazardous.

Backfeeding is the flow of electricity in the reverse direction of the circuit—from the circuit to the power source. This can cause serious harm to utility workers, who are at risk of electric shock. In addition, if the power returns, and the grid and generator are both connected to a home circuit, there is a risk of fire or damage to your appliances. Make sure any generators are installed with a transfer switch.

OUTSIDE YOUR HOME

Circumstances may force you to leave your home during a power outage. It is critical to take steps to ensure not only your safety but also the well-being of the utility workers on the job.

If you must travel, take your emergency kit with you. It will prove equally valuable outside your home. Avoid downed power lines. If you see one while driving, turn around!

- If possible, check on neighbors, especially those who are elderly or who have young children.
- While driving, give utility workers a wide berth. If possible, move away from the lane nearest the workers. In addition, comply with any posted or verbal directions they provide.
- Be aware of other drivers and pedestrians. Traffic signals, streetlamps, and other electronic messages may not be working.
- Be careful entering and exiting buildings.

If you find yourself in a long-term power outage situation, local community centers or other central locations may provide relief from the heat or cold.



AFTER THE OUTAGE

In the aftermath of a power outage, getting everything back to normal is a top priority. However, there are some precautions you should take to make sure all is well.

The lights have flickered back on inside your home. Hooray! Now, there are just a few more things to do to get everything up and running again.

- Wait a few minutes and plug in any appliances or electrical devices you unplugged one at a time.
- Check your refrigerator. If the outage was less than four hours long, your food should be fine. If it was longer, throw out any perishable food that has been exposed to temperatures above 40 degrees for longer than two hours or that has an unusual odor or texture. If you have any doubt, use a food thermometer to check the temperature. Never taste food to determine its safety.
- If the power has been out longer than a day, throw away any refrigerated medicine and ask your doctor or pharmacist about what to do.

You may find that you must clean the refrigerator to remove lingering odors. A mixture of dish soap and water should work, but you can move up to baking soda if you need a stronger cleaner.

OUTDOOR CLEANUP

If your power outage was the result of a storm, you may have some cleanup work to do once the power has been restored. Check your property for damage. Debris and tree limbs can be removed. If electrical boxes, breakers, or outlets were damaged, have them examined by a professional electrician before you use them.



POWER LINES

Power lines are a critical component of the electrical system, but during storms and other situations that lead to outages they transform into a dangerous threat that can cause serious injury.

Even though a power line may appear damaged, that doesn't mean it's dead. All downed power lines are potentially energized and, therefore, dangerous until utility workers can determine if the power has been cut off.

NEAR YOUR HOME

If downed power lines are near or on your home, stay far away from them and instruct any non-utility personnel to not touch them. Anything in contact with a live wire can deliver a fatal shock. Touching a live line or anything nearby, like a fence or puddle, can transmit electricity through your body.

- DO NOT attempt to pull tree limbs off downed or damaged wires.
- DO NOT stand in puddles or pooling water—they may be hiding live wires.
- DO NOT explore areas with heavy debris or downed trees —power lines may be buried.

ON YOUR CAR

If a power line has fallen on your parked vehicle, do not touch the car or attempt to remove the line. Call 911 or your utility service provider and await their help.

If you are inside your car and come in contact with a power line, call 911 immediately. Do not attempt to exit the vehicle until help has arrived. The only reason you should leave your vehicle is if there's a fire or other emergency.

How to exit your car if there's fire due to a power line:

- Quickly open the door and remove your hand from the door handle.
- Jump free of the vehicle with your feet together to avoid touching the car and ground at the same time.
- Hop or shuffle away from the car as quickly as possible. Electricity can spread on the ground in circles. Do not run.
- Don't attempt to help anyone in the car when you're outside the car. You will become a conduit for electricity and may be hurt.



PREVENTATIVE MEASURES

Sometimes, power outages can't be avoided. But you can do your part to make sure preventable power outages don't occur.

TREES

The leading cause of power outages is trees—either limbs blown onto lines or entire trees that land on lines during storms. If you have robust tree growth or ailing trees, it's important to inspect them and act before they cause power line damage. Many utility providers do tree trimming around lines to prevent damage, and several have certified arborists on staff to ensure that the work is done to the highest standards. If you have any questions about your trees, contact your utility provider.



OTHER HAZARDS

Trees aren't the only danger to power lines. Any object that can be lodged in or damage lines is considered a hazard. Here are some examples:

- **Mylar balloons:** The metallic coating on these balloons can conduct electricity and, when they contact power lines, cause a short circuit.
- **Kites:** If these flying objects are wet or have a metallic wire, string, or fabric, they can cause an outage if caught in power lines.
- **Drones:** These devices often have sharp blades that can slice through power lines. It is recommended that drones stay 100 feet away from lines for safety.

A power outage can be a mild nuisance or a serious problem, depending on the length and severity of the situation. Taking steps in advance to prepare your home and your family for a power outage can reduce stress and make you and your family safer.

Your utility provider will work tirelessly to restore power as quickly as possible, and with your cooperation they can do it safely.

RESOURCES

Visit these sites for additional information
about power outages.

READY.GOV

(Department of Homeland Security site
offering information on disasters and emergencies)

www.ready.gov/power-outages

RED CROSS

(Nonprofit organization that provides assistance during
and information on natural emergencies)

[www.redcross.org/get-help/how-to-prepare-for-emergencies/
types-of-emergencies/power-outage.html](http://www.redcross.org/get-help/how-to-prepare-for-emergencies/types-of-emergencies/power-outage.html)

CDC

(Centers for Disease Control)

<https://www.cdc.gov/disasters/poweroutage/needtoknow.html>
800-680-7289

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