



## Prepare Now for Power Outages

Power outages have been on the rise in recent decades, and utilities are not well prepared to take on the challenge of responding to a power outage during a weather event. The oldest American power lines date back to the 1880s, and most of today's grid was built in the 1950s and 1960s. The grid has now reached its capacity and old equipment is failing. According to one analysis, the United States has more power outages than any other developed country.

We are now experiencing power outages by power companies to prevent fires during windy weather. In some cases, power has been out for a week due to these shutdowns.

During a weather disaster power failure is the greatest concern. No power means no way to purchase food, water and gasoline. Once generators arrive in stores supplies will be limited and when available there will be no ATMs and no charge card transactions, so you better have cash. No power means no hot food. No power means water treatment plants are not able to operate and clean water may be at a minimum or not available at all. There have been many deaths during an outage from hypothermia. No power means no heat. In summer, heat related deaths have occurred because there was no power for air conditioners or fans.

There are many scenarios which may cause a power outage during the winter months. The 2003 power blackout was the largest outage in North American history—affecting ten million people in Canada, and forty million people in eight states of the USA—due to the failure of the electrical grid. Ice storms sometimes paralyze cities as far south as the Carolinas. Blizzards are common and often deadly in many parts of the country. Your home might survive the ravages of the storm but still be without power for extended periods.

Earthquakes can occur any season of the year and imagine if the big one that is expected in Seattle, San Francisco, Utah or along the New Madrid fault happens during the coldest week of the year. If a disaster has happened even once in your area it can happen again. No matter the cause, some planning is needed to keep family life somewhat normal.

As we plan for outages, I understand many of our readers are in the southern hemisphere and it is summer. Your planning will be the same no matter the season right now. Summer will come to the north of the equator and winter to the south.

Years ago, I wrote an article for an online magazine describing my memories of a hurricane in New Jersey when I was a very little girl. I received a letter from a man telling me hurricanes did not happen in New Jersey. I thought about that man when hurricane Sandy hit the east coast, including New Jersey. I repeat, if a weather disaster has ever happened in your area it can happen again, even if it's been 50 or 100 or 500 years.

Will you be prepared, or will you be left wishing you had taken steps to protect your family? If you are still unmotivated, search YouTube or TV archives and watch the suffering following a disaster. Ask yourself if you

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are willing for your family to face the same fate. Read and study the following suggestions and take steps now to prepare what you will need.

Prepare now for when power fails:

1. A radio: You should already have one in your five day kit. You will want to stay informed, so a radio is an absolute must. A hand crank/solar-powered radio is a good choice, although it should be one that operates on batteries as well. Some radios are also available with a built-in flashlight, which is also handy. After winding the crank for 30 seconds, the radio will play and the flashlight stay lit for a surprisingly long time. If you choose a battery-powered radio, make sure you have batteries stored long term with the radio, but not in the radio. Also, be sure your radio has both AM and FM bands, since emergency broadcasts are limited and may be on either band in your area.

2. Lighting: Have several flashlights on hand, and again I recommend a solar/crank or battery-operated flashlight. I do not recommend the flashlights that you shake. They have a very low beam of light and have to be shaken every 2-3 minutes to maintain power. I have experimented with several brands and have been dissatisfied with all of them. I have not seen one I could recommend. Others have told me the same. Headlamp flashlights are great for hands free tasks such as bringing in firewood or taking out the trash at night.

Except for flashlights in regular service, store batteries separate from your flashlight. I recently had a battery explode in a flashlight completely destroying it. It literally had a meltdown. Usually, battery failure leads to leaked acid that destroys the flashlight or radio, rendering it useless when you need it.

For everyday safety, keep a flashlight next to every bed in the house in case of a nighttime emergency.

Lanterns used for camping are great for outages as they provide plenty of light and are great to set on a table for playing games, coloring or other stay sane activities.

Raid your 5-day kits (for those new here 72 hours is not enough) for glow sticks. These are so much safer than candles. Simply snap and shake the glowstick and it glows for hours. Always purchase the white or yellow varieties for the brightest light. Glow sticks come in several sizes and will glow for 30 minutes to 12 hours. Be sure to check when purchasing that you have the 12-hour variety. These can be hung in restrooms and hallways as nightlights providing light all night long without running down batteries. Glow sticks can be hung around the neck of a child to quickly see them in a crowd or to check on them in the middle of the night.

Candles should be available for use during a power outage but should never be used after a natural disaster. Gas leaks occur frequently after destructive disasters and many, many homes and lives have been lost in fires caused by gas explosions from lighting a candle. Candles sold in glass jars or bottles, such as religious candles, are by far the safest to use in appropriate situations.

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Don't forget about the battery powdered candles you have. Most are programmable and make great night nights without running down the batteries.

Outdoor solar landscape lights make great lighting indoors during the nighttime hours. Place them back outside during the day to recharge.

Inflatable LED lights are amazing and provide a bright enough light to read by.

3. Cooking: Plan for your emergency kitchen. This may include a barbeque grill, fire pit, camp stove, solar oven or your gas range. Each method will need additional preparation and caution. You will need charcoal, propane tanks, wood, aluminum foil, and special pots, pans and griddles.

Remember to NEVER use a barbeque in the house either for heat or for cooking. In an extreme emergency such as a blizzard, when there is no other option for heating food and water, place a barbeque in the garage, OPEN the garage door and remove the car before starting the grill, keeping the door open the entire time. You will need to cook in your down coat but you will keep your family safe from toxic fumes. You cannot use a household pan on an open fire or grill but a griddle will act like a frying pan if you are using either of these methods to cook.

For an extended outage eat the food in the freezer first. If your outage may be long, cook everything. Once cooked food will keep for a few days packed in snow or ice you chip from the yard. If your temperatures are below freezing place some small containers of water in the yard and wait for them to freeze. Once frozen place them in a cooler to keep food preserved.

Purchase long wooden matches which are the best to store as they are easier to use and burn longer when trying to light a fire or barbecue.

If there is no running water, you will not want to waste valuable stored water washing dishes. Use paper plates, cups, utensils, etc. Be sure to get paper, not Styrofoam so they can be burned if trash pick-up is delayed or not happening. Store some liquid dish detergent for washing pots and other items used in cooking.

4. Water: If you have a well that supplies your water, it is extremely important that you have ample water stored. Even if you are on a water system you should be storing extra water. Water pipes can freeze, and if they do, turn off your water and do not attempt to unfreeze the pipes. Keep jugs of water stored for flushing toilets. You will also need water to prepare meals, water for pets, for cleaning, bathing and of course drinking. Most importantly, remember during winter you will want to drink warm drinks so make sure you have water stored that can be used for hot cocoa and other hot drinks. Consider purchasing a water purifier now. They make great Christmas gifts and come in many sizes from pitchers to three (or more) gallon tabletop models.

5. Store wet wipes and liquid hand sanitizer for cleaning hands and conserving water.

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6. Food: Store canned foods to use during a power outage. They contain water or syrup which can help hydrate and they can be eaten cold if necessary. Never eat dehydrated or freeze-dried foods without reconstituting them as this will cause dehydration and can lead to serious health problems.

Store a manual can opener. All the food in the world is no good if you can't get into it.

7. Fill the freezer: Always keep your freezer as full as possible. You do not need to invest in lots of meat, simply place plastic containers or resealable freezer bags filled with water, leaving a inch or two of air space for plastic containers, in the empty spaces in your freezer. This will preserve food longer and also provide safe drinking water when defrosted. As you add food to the freezer simply take the water out and use it.

8. Battery operated clock: During an emergency, time seems to crawl by. Move your clock to a common area where everyone can check the time. Every home should have at least one clock that is battery operated.

9. Fuel: To produce heat effectively, wood must be seasoned. This means it has dried for at least a year after being cut. These stockpiles of wood will disappear quickly. Acquire a supply of firewood now. Hardwoods such as madrone, eucalyptus, almond, oak, etc. are the best for heating. Pines, firs, spruce, and redwoods are softwoods and will burn cooler and more quickly, providing fewer coals and less heat. Store a little soft wood as it makes a great fire starter.

Consider how you are planning to cook during an outage and store the fuel necessary. For barbecues and fire pits, purchase charcoal or wood. Propane tanks are needed for some barbecues and camp stoves.

10. Batteries: Store extra batteries of various sizes for flashlights, radios, clocks, and tools. Inventory the items in your home and make a list of sizes and numbers of batteries needed for each item. And make sure you know where you have stored them.

11. Body warmers. Purchase the good ones, they will help keep you warm for up to 20 hours. You should have these in your Five-Day Kits. If you don't, add them now.

12. Generators: If you can afford to purchase a generator, do it now. They will be gone in about 10 minutes after a natural disaster warning or after the earth stops quaking. If you cannot afford a generator, consider purchasing one with a relative or neighbor. Someone will have to house it and, of course, that is where neighbors, family, and friends will come in an emergency.

Store fuel for your generator. To store gasoline for an emergency generator it's important to follow simple safety rules. Fire codes typically restrict gas storage to no more than 25 gallons. Store the gas in approved containers of 5 gallons or less. Approved containers will include a label directly on the container confirming it meets specifications for portable containers for gasoline products. Never store gas in unapproved or glass containers. Fill the containers no more than 95 percent full to allow for expansion. Keep the container tightly capped. Store the container at least 50 ft. away from pilot lights and ignition sources such as a water heater,

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space heater, furnace or barbecue grill. If storing on concrete place a piece of wood under the container. Store out of reach of children. Store in a garage or shed and never in your home. Store out of direct sunlight. When storing gasoline always add a fuel stabilizer. Stabilizers prevent compounds and microbial growth from forming and degrading the gasoline. A stabilizer will allow you to store the gasoline for a year before rotating it.

Propane generators are amazing and run on the same tanks as a barbecue grill.

13. Heat: If you don't already have one, purchase a tent. During a winter outage bring in your tent and set it up in the room of your home that you are using as the "warm" room. Play games in the tent during the day and sleep in it at night. During a summer outage a tent in the yard may be cooler for sleeping than in the house.

You can make a paint can heater. You will find directions on the Totally Ready Facebook page. These are inexpensive and easy to make and a great gift for those you are helping prepare.

14. Screen door: Have you seen the screen door held on by magnets? These can be life savers during a summer outage. Place them on doors which will catch breezes cooling your home.

15. Mylar blankets: Speaking of cooling your home, in hot weather place mylar blankets on all windows and doors which receive direct sunlight. You will be amazed how much these will reduce the heat in your home. They are inexpensive and work wonders. Stock up.

16. Fire extinguisher: The fire department will be busy during an outage and fires can happen any time, even a barbecue or firepit can get out of control.

17. Cash in small denominations: No ATM machines will be working, and most credit cards sales are unavailable during an outage.

18. Large plastic trash bags: Garbage bags for all those paper plates, etc. Trash pickup may not be available or may be delayed.

19. Laundry: Have you made a bucket washing machine? If you have not, get the parts so you can make it when needed. Don't forget the rope and clothes pins for drying. Get directions on the Totally Ready Facebook page.

20. Medications: If you use medication that requires refrigeration, most can be kept in a closed refrigerator for several hours without a problem. If unsure, check with your physician or pharmacist. If you have these medications it is very important to purchase a generator or a cooler that can be plugged into the cigarette lighter in the car.

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21. Files: If you use a computer, keep files and operating systems backed up regularly. Consider buying extra batteries and a power converter if you use a laptop computer. A power converter allows most laptops (12 volts or less) to be operated from the cigarette lighter of a vehicle. Also, turn off all computers, monitors, printers, copiers, scanners and other devices when they're not being used. That way, if the power goes out, this equipment will have already been safely shut down. Get a high-quality surge protector for all of your computer equipment. If you use the computer a lot, such as for a home business, consider purchasing and installing an uninterruptible power supply (UPS). Consult with your local computer equipment dealer about available equipment and costs.

22. Garage doors: If you have an electric garage door opener, find out where the manual release lever is located and learn how to operate it. Sometimes garage doors can be heavy, so get help to lift it. If you regularly use the garage as the primary means of entering your home upon return from work, be sure to keep a key to your house with you, in case the garage door will not open.

23. Fuel up: Keep your car fuel tank at least half full, gas stations rely on electricity to power their pumps.

24. Dependent on equipment for medical reasons: If you use a battery-operated wheelchair, life-support system, or other power-dependent equipment, call your power company. Many utility companies keep a list and map of the locations of power-dependent customers in case of an emergency. Ask them what alternatives are available in your area.

25: More medical. If you use a motorized wheelchair or scooter purchase an extra battery. A car battery may be used with a wheelchair but will not last as long as a wheelchair's deep-cycle battery. Store a lightweight manual wheelchair for backup.

26: Visually impaired: If you are blind or have a visual disability, store a talking or braille clock with extra batteries.

27: Hearing impaired: If you are deaf or have a hearing loss, consider getting a small portable battery-operated television set. Emergency broadcasts may give information in American Sign Language (ASL) or open captioning.

Power outages are the most common disaster and can be a few minutes to several weeks. The holidays are a perfect time to add items to your preparations. Let's think a little differently this year as we ask for and purchase gifts.