

# HURRICANE

## *Preparedness Guide*

 **Clay Electric Cooperative, Inc.**  
A Touchstone Energy® Cooperative 



Hurricane Season is June 1 - November 30

until the last minute to begin preparations. Stock up on needed items at the beginning of the hurricane season and take necessary steps to protect your family and home when the first watches are issued.

## Things to consider before the storm hits

**1 A Hurricane Alert** is announced when a hurricane poses a possible threat to an area. If the hurricane is believed to be an appreciable threat, the area is put on a Hurricane Watch. Tune to your local news station for further advisories. Safety precautions should be started if an Alert is announced.

**A Hurricane Warning** is issued when it is expected an area will be hit by a hurricane. At this time, all safety precautions should be taken. If you live in a low-lying area prone to flooding, be ready to evacuate early. Pre-storm rains and flooding may cut you off if you don't move soon enough.

**If you are asked to evacuate**, do so as quickly as possible. Bring necessary medications and such children's needs as diapers and baby food. Also, bring blankets and pillows. Understand that most shelters do not allow pets.

**Stay away from beaches** or other low areas which may be flooded by high tides. Haul boats out of water and tie down or strongly moor them.

**Mobile homes are particularly vulnerable** to winds of hurricane force. You should move to safe shelter when a hurricane warning is given. You may secure all outdoor objects and awnings over doors and windows, and tape or board windows and doors. Do not stay in your mobile home during a hurricane.

**Stay at home if your house is safe** from high water and flash flooding. Bring in everything that could blow away – garbage cans, garden tools, furniture and plants. Remove limbs from trees that could damage your house or utility wires. When you're taking down limbs or antennas, keep in mind that even the slightest contact with a power line can cause a fatal electrical shock.

**Turn your refrigerator and freezer to colder settings.** Open only when absolutely necessary and close quickly. If used carefully, a good refrigerator/freezer can maintain food-preserving temperatures up to two days without electricity. Fill empty spaces with frozen plastic jugs of clean water.

**Prepare your emergency water supply.** Sterilize the bath tub and other jugs, bottles, pots and other containers. Scrub thoroughly, let dry and fill with water. Boil this water before drinking.

**Secure garage doors, shutters and awnings,** and brace sliding glass doors and French doors. Board windows securely with plywood.

*"Failure to prepare for a hurricane could be the difference between life and death. Ultimately, if individuals don't create their own hurricane plan, this is all for naught. We live in paradise, and that is the price we pay."*

- Former Florida Gov. Jeb Bush, speaking at the 2005 Governor's Hurricane Conference in Tampa.

## Hurricane Checklist...

- Battery-powered radio
- Extra batteries
- Flashlights
- Extra flashlight bulbs
- Extra/external cell phone battery
- Lantern
- Fuel
- Matches
- First aid kit
- Bleach
- Plywood to cover windows
- Emergency cooking supplies
- Manual can opener
- Pantry well stocked with canned goods, drinking water, baby food, etc.
- Extra medicine
- Extra ice in freezer
- Tub filled with water
- Full tank of gas in vehicle
- Important papers in a water-proof and portable container
- Pets protected or inside
- Loose outside objects stored or secured
- TV antenna taken down

## Things to consider during the storm

**2**

**Stay indoors.** Don't go out at all, except in emergencies.

**Stay tuned to your local news station** for up-to-the-minute advisories and remain indoors or in a shelter until the all clear announcement is given. Use your phone for emergencies only.

**If the electricity goes out,** use flashlights instead of candles or kerosene lamps when possible. Be careful with cooking flames. A gust of wind through a door or window could start a fire, and the fire department may not be readily available during the hurricane.

**If the eye of the hurricane passes** directly over your area, skies may clear and there may be a lull in the wind that lasts a few minutes or a half hour. Remain in a safe place. If absolutely necessary, make emergency repairs quickly. Be careful – the wind will return from the opposite direction suddenly, and maybe with even greater force.

## Things to consider after the storm

**3**

**Stay away from disaster areas** so you don't hinder first aid or rescue work. **Be on the alert for rising water** in streams and rivers even after the heaviest rain has ended.

**Stay away from broken or low-hanging power lines,** as well as metal objects which may be in contact with damaged power lines.

**Be assured your co-op will restore electric service** as quickly and safely as possible. The co-op has an emergency plan to follow that allows power to be restored to as many customers as quickly as possible. First, power is restored to substations. Next, main feeder circuits are brought back on line. Then work crews repair secondary lines and tap lines. Finally, efforts are concentrated on individual customers still without power. See the sidebar story at right for more about this topic.

**If you have lost power during the storm,** it is not necessary for you to immediately call and report your power outage. Clay Electric's automated equipment identifies main feeder lines that are not in service. You're asked to help keep the phone lines open for emergency calls only. If your neighbors have had their electricity restored and you're still without power, please report it at <http://outagereport.clayelectric.com> or call 1-888-434-9844.

**If you use a portable generator** during an extended outage, do not connect it to your home's wiring unless your home is equipped with a double throw-back switch installed by a licensed electrician and you understand its proper use. For more about portable generators, please see additional information on page 3.

## *Restoring your power after the storm - a look at the restoration process*

If a hurricane should cause widespread power outages in Clay Electric's 14-county service area, co-op personnel will be involved in the power restoration process even before the storm leaves the area. They will continue their efforts, with the help of many crews from other areas of Florida and from other states, until your power has been restored.

Understand the co-op's concern for the safety of its employees means no outdoor work will be performed during dangerous high-wind conditions. But, as soon as conditions allow, employees will be out in force assessing the damage to the system and getting the restoration effort underway.

Electric utilities follow a specific restoration plan during widespread power outages. The first step is repairing transmission lines, which carry high voltage electricity from generating plants to transmission substations. Transmission substations are also among the first items to be repaired.

Next to receive the attention of repair crews are the distribution substations and their respective main feeder lines. The co-op has more than 50 substations on its system and there are about 13,000 miles of distribution lines, which carry power out from the substations to homes and businesses.

The number of members served by each of Clay Electric's distribution substations can range from a few hundred to nearly 9,000 – so getting the

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Report outages:

**<http://outagereport.clayelectric.com>**

**1-888-434-9844**

Clay Electric's online power outage map:

**<http://outagemap.clayelectric.com>**

# Important information on the safe & proper operation of generators



The power outages caused by hurricanes in recent years have created a lot of interest in generators. If you are shopping for a generator or have already purchased one, please keep the following information in mind.

## Safety First

It is extremely important to follow all the instructions provided by the manufacturer of the generator. An improperly connected generator can create an extremely dangerous situation because it can backfeed electricity into Clay Electric's distribution system. This situation could result in serious injury or death to an unsuspecting co-op lineman, neighbor or family member. Never operate a generator inside an enclosed area. Carbon monoxide gases produced by a gasoline or propane engine can also cause death. Generators should be operated in well ventilated areas, a minimum of 10 feet from operable windows and doors.

A word of caution: residential portable generators are not designed to be operated continuously. We recommend running a generator during emergency situations for a few hours, then shutting it off for a short period of time. This helps conserve gas/propane since they may not be readily available for the first few days after a major storm. Never leave a generator running when the home is unoccupied. Also, portable generators should be run for 10 minutes monthly to prevent stagnant gas from gumming up the carburetor.

## About Generators

There are two basic types of generators – (1) portable and (2) standby.

**Portable** generators are designed to supply auxiliary power to specific appliances/equipment using extension cords. Most portable generators are mobile, gasoline fueled, and electric or manually started. The extension cords used with a portable generator also should be properly sized to handle the electrical requirements of the appliance. See the appliance usage chart on the next page to help you determine the total amount of watts you may need.

**Stand-by** generators are designed to be hard-wired to the home's electrical system. They automatically operate when there is a power interruption and they shut off when the utility power is restored. They are powered by LP, natural gas, diesel fuel or gasoline, and they should be installed by a licensed electrician. The installed cost of standby generators may range from \$3,000 to \$10,000. The wattage ranges from about 5,000 to 20,000 watts for residential use.

For both types of generator, the size (watts) of the generator determines the number of appliances/equipment you can safely operate at one time. Any appliance/equipment with a motor or compressor will draw more current during start-up than during normal run time. The start-up of these motor/compressor loads must be considered when sizing a generator for your needs.

Standby generators use a transfer switch designed to connect certain electrical circuits within a home to the generator. You must determine which electrical circuits you want to be supplied with auxiliary power. A licensed electrician should install the transfer switch.

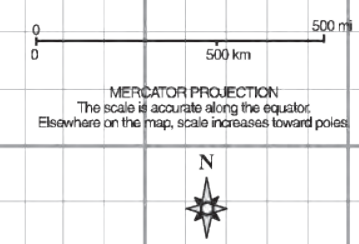
A new type of switch now available for portable generators is the "meter based" transfer switch. The meter based transfer switch allows operation of any circuits in the home up to the capacity of the switch and generator.

## How Should I Maintain the Generator When Not in Use?

If left to sit in engines for long periods of time, ethanol-added gasoline can corrode parts of the engine, causing seals to deteriorate. However, if you drain the gas and leave the engine empty, the O-rings can dry out and cause the gas tank to leak. To avoid seal corrosion, use a fuel stabilizer and run your generator monthly for 10 minutes.



# ATLANTIC HURRICANE TRACKING CHART



# Appliance Usage Guide

Use this Appliance Usage Guide to estimate the power requirements of various appliances/equipment. This will help you determine the size generator you may want to purchase.

Appliance/Equipment	Running Watts (avg.)	Starting Watts (avg.)
Water Pump ½ HP	1,000	3,000
Water Pump ¾ HP	1,500	4,500
Sump Pump	1,000	3,000
Refrigerator	750	1,500
Freezer	500	1,000
Microwave	600-1,500	
Lights	40-200	
Television	150-400	
Radio	6-15	
Oscillating Fan	50-100	
Water Heater	4,500	
Coffee Maker	750-1,200	
Toaster Oven	1,100	
8,000 BTU AC (window unit)	1,000	3,000
3-Ton A/C or Heat Pump	6,000	32,400
Garage Door opener	500	
Computer	120	
Home Security System	24	

This appliance usage guide is the estimated average usage of electrical equipment. Generators have to be sized large enough to handle the starting wattage of motorized equipment. A 5,000 watts generator will handle the operation of appliances listed above except the 3 ton A/C or heat pump. All appliances can't be in operation simultaneously but you can control the sequence of operating time.

## Restoring power...

*From page 2*

substations back in service is essential. Individual tap lines are next in the restoration plan because they serve the fewest number of members.

Essential Service Accounts include hospitals, law enforcement, fire, radio and television stations, cell towers and water providers. Of course, these accounts are given a priority status in the restoration process because they are essential to community safety, health, and communications.

Rebuilding large portions of a distribution system that stretches into 14 counties takes time, and the understanding and patience of members during a time of extended outages is helpful.

## Slightly below-average activity predicted for 2017 hurricane season

A forecast team from Colorado State University has predicted a slightly below-average level of activity in the Atlantic basin this hurricane season.

Phil Klotzbach and Michael Bell of the CSU Tropical Meteorology Project say there will be an average of 11 named storms, with four of those storms developing into hurricanes in the Atlantic this season, which runs from June 1 through November 30. The historical seasonal average is 12 tropical storms, with 6.5 of them becoming hurricanes.

The team predicts:

- A 42 percent chance that at least one major hurricane will make landfall on the U.S. coastline in 2017 (the long-term average probability is 52 percent).
- A 24 percent chance that a major hurricane will make landfall on the U.S. East Coast, including the Florida Peninsula (the long-term average is 31 percent).
- A 24 percent chance that a major hurricane will make

landfall on the Gulf Coast from the Florida Panhandle west to Brownsville (the long-term average is 30 percent). The 2016 Atlantic hurricane season saw seven storms becoming hurricanes, with four of them reaching major hurricane status.

With the memory of Hurricanes Hermine and Matthew still fresh, Florida residents are reminded to take the proper precautions and to remember that it takes only one landfall event nearby to make this an active season.

Clay Electric Cooperative offers lots of information in its online Storm Center (<https://www.clayelectric.com/reliability-restoration/storm-center>) to help its members prepare for the possibility a hurricane may strike North Florida. The page contains information on generator safety as well as links to a hurricane checklist, disaster relief websites and the Clay Electric outage map.

# Test your hurricane I.Q.

1. A hurricane is immediately preceded developmentally by which of the following?
  - a. A tropical wave
  - b. A tropical depression
  - c. A tropical trough
  - d. A tropical storm
2. True or false? You should leave one window open during a hurricane to prevent your house from exploding.
  - a. True
  - b. False
3. By what scale is a hurricane's strength measured?
  - a. Fujita
  - b. Richter
  - c. Saffir-Simpson
  - d. Mercalli
4. In the Northern Hemisphere, which direction do a hurricane's winds rotate?
  - a. Counter-clockwise
  - b. Clockwise
5. Who was the first pilot to intentionally fly into a hurricane's eye?
  - a. Chuck Yeager
  - b. Charles Lindbergh
  - c. Amelia Earhart
  - d. Joseph Duckworth
6. How many Category 5 hurricanes have hit the United States since 1899?
  - a. 3
  - b. 4
  - c. 5
  - d. 6
7. On average, what are the peak months of the hurricane season?
  - a. June/July
  - b. July/August
  - c. August/September
  - d. September/October
8. What was the costliest hurricane in U.S. history?
  - a. Camille
  - b. Opal
  - c. Katrina
  - d. Andrew

## Answer Key:

1(d) 2(b) 3(c) 4(a) 5(d) 6(a) 7(c) 8(c)

## Here's some additional preparation tips perhaps you haven't thought about...

*Here are some additional things to consider as you make your hurricane preparation plans that could help you better cope with an extended outage.*

- When freezing water in containers to help keep your food cool during an extended outage, use the largest containers you have room for in your freezer. Larger blocks of ice last longer than ice that's in cubes or crushed. Keep an ice pick handy in case you need to chip the ice into smaller chunks.
- Buy battery-operated fans (one per person) and lots of batteries to operate them.
- Buy a cot and sleep in the coolest spot in the house. Sleeping on the floor or on an air mattress offers no breeze or draft.
- Cell phones are a lifesaver, but not necessarily when a hurricane knocks out the power. An old-fashioned telephone that's plugged into the wall may be invaluable when the phone batteries die. And don't use your cell phone as a "flashlight" during a power outage, because the battery dies faster. In a pinch, you might be able to charge your cell phone in the car (don't run the vehicle's engine in an enclosed garage!).
- Buy a small flashlight that can be worn around your neck, or a clip-on light that can be attached to a cap. This will help you avoid stumbling around in the dark looking for a flashlight.
- You have power but your relatives don't, and they're on their way? Ask them to bring extra food and supplies so there won't be any shortages at your home. A hurricane is enough of a stress, and to run short of supplies because of the extra mouths to feed can make things even worse.
- Keep an extra tank of propane on hand for the gas grill or cooker during the hurricane season.



A small flashlight that clips to your cap might be a useful item.

## HELPFUL WEBSITES...

**The Florida Division of Emergency Management** provides shelter, road and evacuation information at: [www.floridadisaster.org](http://www.floridadisaster.org)

**The State of Florida** offers county-by-county relief information, insurance information and relief details at:

[www.floridadisaster.org/EMTOOLS/Severe/hurricanes.htm](http://www.floridadisaster.org/EMTOOLS/Severe/hurricanes.htm)

**The National Hurricane Center** provides storm updates at:

[www.nhc.noaa.gov](http://www.nhc.noaa.gov)

**FEMA** (the Federal Emergency Management Agency) is on the web at: [www.fema.gov](http://www.fema.gov)

The **Red Cross** is on the web at: [www.redcross.org](http://www.redcross.org)

# If your home's electrical service is damaged:

## Who's responsible for what?

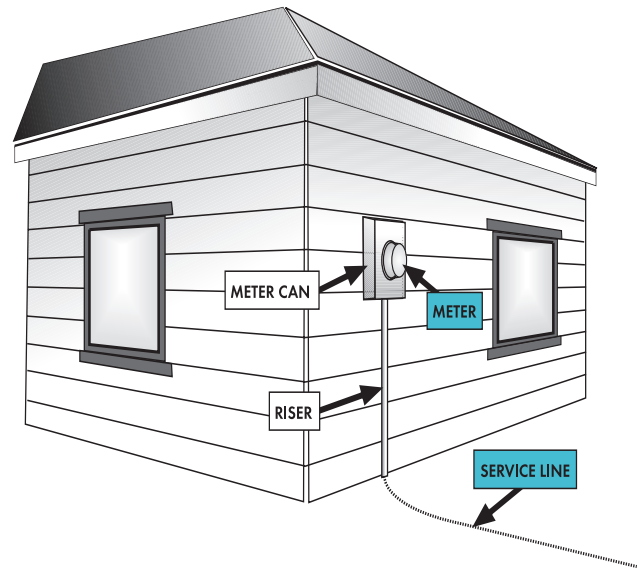
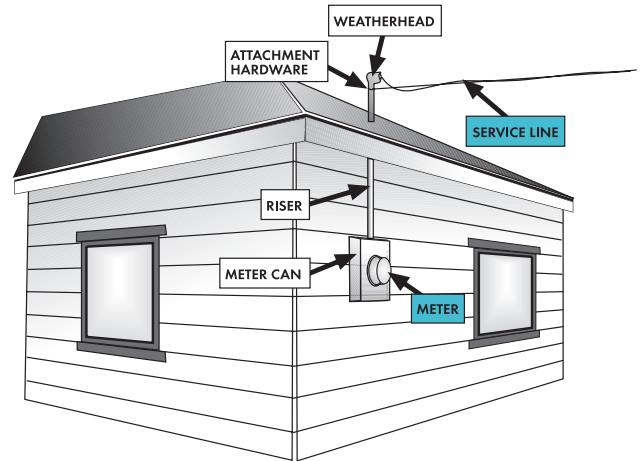
When the storm subsides and you venture outside to see what has been damaged, please be very careful of debris and the likelihood that power lines may be lying on the ground.

If you see damage to the electrical equipment that brings power into your home (the weatherhead, the metal conduit that shields the electrical wires, and the meter can), please contact a licensed electrician to have the damage repaired. Please see illustrations for clarification. Clay Electric is not responsible for repairing this equipment if it has been damaged by a storm or hurricane. Restoring power to an electrical service that has been damaged could result in a fire or threat to personal safety.

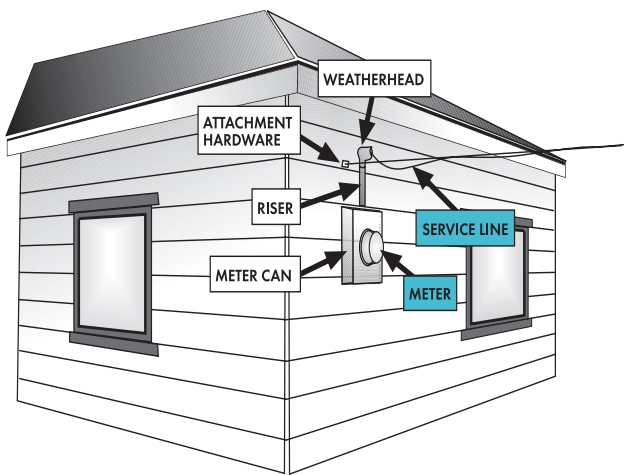
Once an electrician has completed the repairs, and the work has been inspected and deemed to meet local codes, power can be restored to the home.

If the electric meter is damaged, Clay Electric will repair or replace it.

Members are also urged to be wary if the home has been damaged in a way which has allowed rainwater to seep into walls and around electrical wiring. A licensed electrician should make an inspection to determine if damage has occurred to the home's electrical circuits, or if electrical hazards exist.



-  CLAY ELECTRIC RESPONSIBILITY
-  HOMEOWNER RESPONSIBILITY



## Document your home and possessions

The American Association of Retired Persons (AARP) suggests that you take photos before and after a storm. These images can be a big help if your property sustains serious damage and you need to make an insurance claim.

You may want to make a video that gives a detailed tour of your home before a storm. Cheap and easily

stored on a DVD, these videos provide a lot of detail.

Keep all photographs, video, documents and other important records in a secure location. A safe, portable fireproof box or a bank safe deposit box will do the job.





A Touchstone Energy® Cooperative 

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