# Operation: Storm Ready

365 days a year







# We've learned to be ready for anything

Severe weather is impacting our region with increased strength and frequency. And we are adapting. Building a resilient grid is what we do. It's been part of our business for decades. When it comes to grid resilience, it's not only the strength of the system, but also how quickly we recover and restore power to our customers following severe weather, that's important.

We stand storm ready.

# Read on to learn more about:

Strengthening the grid before and after storms
Storm preparations 365 days a year
Weathering any storm together
Crews work as quickly as they safely can to restore power
Customers should stay aware, stay safe
Prepare now for severe weather
Quick links: Prepare and be safety aware

A message from Entergy Corporation ©2023 Entergy Services, LLC. All rights reserved. Sources include Federal Emergency Management Agency, National Oceanic and Atmospheric Administration, American Red Cross and ready.gov.



# Strengthening the grid before and after storms

Building a resilient grid is what we do. And when it comes to grid resilience, it's not only the strength of the system, but also how quickly we isolate and recover following severe weather.

# Building resilience has been part of our business for decades, but we need to evolve

Today, we seek to answer how some investments can be accelerated to meet the changing needs of our customers, while balancing cost implications for our customers with the rate of planned investments.



#### Investments

Our estimated capital plan (from 2023-2025) totals \$16 billion, including \$6.2 billion in distribution and utility support, \$7.3 billion in generation, \$2.5 billion in transmission investments.



## Hardening

We evaluate storm hardening strategies from a customer perspective, weighing the benefits of fewer and shorter outages against increasingly expensive investments that have an impact on the cost of electricity for our customers.



#### Reliability work

Using a data-driven, rigorous analytical approach, we evaluate storm hardening strategies and investments from a customer perspective, weighing the benefits of fewer and shorter outages and lower future storm restoration costs against the costs of those investments, which have an impact on the cost of electricity for our customers.



#### Resilience

We identified a \$15 billion investment over 10 years to better protect against weather events, from hurricanes to ice storms.

# Maintaining affordable rates is a must

Customers are at the heart of this. After consecutive years of tremendous storm impact to our region, we're exploring new strategies and a faster pace for resilience investment, including the costs and benefits of that investment. We'll continue to work with our regulators and diligently seek federal funding to offset the cost of these enhancements to our customers.

# We know investments in hardened infrastructure perform

During Hurricane Ida, a section of our transmission system with roughly 380 newly built structures was in the direct path of the storm, but only three were damaged and not by wind, but by flying heavy-duty barge debris.

100%

Section of newly built transmission structures survived Hurricane Ida's 150 mph max sustained winds.

# Storm preparations 365 days a year

We prepare for the worst of what Mother Nature might bring, because our customers live in areas prone to some of the most severe weather in the country. Weather is impacting our region with increased strength and frequency, and recent major storms in our area and along the Gulf Coast remind us of the need for vigilance.

# Hurricanes, thunderstorms, tornadoes, ice storms



#### 2020 Atlantic hurricane season

- Hurricane Laura: Category 4, 150 mph, 77 deaths.
- Laura devastated the transmission system in Lake Charles, leaving 1,900 structures damaged or destroyed.
- Five named storms hit our service area, and we were in the "cone of uncertainty" for seven.
- Busiest season ever recorded, with 30 named storms.



#### 2021 Atlantic hurricane season

- Hurricane Ida: Category 4, 150 mph, 32 deaths in Louisiana and Mississippi.
- Damage to the distribution system surpassed that of all major hurricanes we've experienced since 2005, resulting in more than 30,000 poles needing repair.



## Major weather events outside of hurricane season

- Feb. 2021: Coldest outbreak in the U.S. in more than 30 years.
- March 2022: A major tornado touched down in Arabi. Louisiana. destroying the area's substation.
- Dec. 2022: Winter storms and record-low temps impacted millions across Arkansas, Mississippi and Louisiana.
- March/April 2023: Major tornadoes devastated Arkansas and Mississippi communities.

# Storm ready

Entergy is a recognized leader in storm response. And monitoring weather threats is a 24/7, 365-day-a-year job. When a weather threat is confirmed, Entergy uses weather forecasts and computer models based on knowledge from past storms to predict an estimated duration and number of outages that could occur. We follow a very detailed, rehearsed plan that has worked well for us during storm recovery. Every storm is unique, so while plans are rehearsed and in place, we also adapt to ever-changing conditions brought by Mother Nature.

We are storm ready

### Inspections

Inspections of the grid and our facilities are conducted year-round. We look at outage statistics and work to improve parts of the grid that may have experienced more frequent outages. Infrared cameras and drones inspect power lines and look for "hotspots" and other areas that might be likely to fail. Utility poles are inspected annually, replacing damaged or broken poles when necessary. Transmission lines and facilities, along with our plants, are also inspected in preparation for extreme weather conditions

#### Maintenance

We have proactive maintenance plans that we work throughout each year, taking a data-driven approach to identify where to make improvements that will yield benefits for customers. As we identify areas to upgrade equipment, we're replacing outdated equipment with more reliable

and modern infrastructure. For example, we target areas where customers have frequent or repetitive issues. And we routinely see improvements on these areas after the work is complete.

## Industry collaboration

Entergy partners with other utilities in mutual assistance agreements, in preparation of restoring widespread outages that occur after severe weather. Mutual assistance companies meet annually to strengthen their partnership.

#### Vegetation

"Sky to ground" vegetation trimming is part of our process, which removes tree limbs that would normally have been above the power line and outside our standard trimming scope. Satellite imagery and computer modeling is used to help predict when trimming may be needed. Every year right-of-way areas are cleared to help minimize the impact from fallen trees or branches following a storm. And, prestorm patrols of power lines, facilities and equipment are conducted to mitigate any imminent threats within the right-of-way.

#### Training

We rely on our continuous cycle of planning, preparation, training and evaluation. Annual readiness drills and training, such as computer-based and event tabletops are conducted to promote and test awareness. Lessons learned are conducted following each major storm, with associated actions taken across the company.

# We winterize in prep of cold weather

Unique readiness plans are in place for each power plant, and we insulate critical equipment using improved methods and materials to protect them from low temps – for example, all piping is insulated with the potential for standing water to prevent freezing. Permanent windbreaks or enclosures were designed and built to protect pumps and other critical equipment.

Transmission lines and facilities critical to bulk electric system reliability are inspected and maintained, for example, identifying any potential equipment performance issues with substations. Teams also test infrequently used generating units, such as the startup of emergency generators, where applicable, and check freeze protection circuits.

We prepare critical systems and infrastructure across the distribution grid, further inspecting and testing equipment that can be impacted by extreme cold such as gas-filled circuit breakers. And, ensure readiness of assets that provide electric service to critical gas infrastructure and other points of delivery that are vital to support generation reliability and resiliency.

# Weathering any storm together

When forecasts seem daunting, we stand ready. We have a proven plan of continuous preparation, planning and training. As severe weather threatens, we monitor, mobilize and act. Most important is the safety of those living and working in communities hit by big storms or severe weather.

# As a storm approaches, we ramp up support

### **Resources and logistics**

Local infrastructure may not be intact following a major storm and can't always accommodate an influx of thousands of restoration workers. Hotels, restaurants and fuel for vehicles may not be available, for example. We set up staging sites, or base camps, that provide lodging, dining and sanitary facilities for workers in the field, as well as vehicle maintenance and supply depots. The sites are usually set up within 24 hours of the weather event.

## Storm support staff

Line and vegetation crews may be the most visible part of the restoration, but many other employees are working behind the scenes, too. Workers from all areas of Entergy work at many critical locations including staging sites, dispatch centers, customer service centers and material supply sites. They provide the support needed to keep the restoration moving.

#### Response teams

Mobilizing our massive human response involves securing and mobilizing our crews, contractors and mutual assistance partners.

Contractors must be vetted for safety, licensing, and skill. And careful attention is paid to costs of mobilizing as many workers as needed, to minimize financial impact on customers.

# Customers should prepare before weather threatens the area

## Make a plan, make a kit

Experts agree that having a family emergency plan and a kit of the basic supplies needed in an emergency is the best way to be prepared for severe weather. A kit of basic emergency supplies and a first aid kit are easy to assemble and are smart ways to prepare for severe weather. Remember to check expiration dates on supplies regularly and replace the expired items.

## Prepare your home

Simple preparations can help protect your property from storms and their aftermath. Cover your windows with plywood or permanent hurricane shutters to protect against high winds and flying debris. Trim trees and shrubs near your house helps to help make them more wind resistant and lessens the likelihood of them damaging your house. Clean out gutters and drainpipes, removing any debris, and bring in or secure outdoor furniture, decorations, garbage cans and anything else that can be blown away by the high winds.

## As a storm approaches

Follow instructions from emergency management officials regarding evacuations or other actions required. Before leaving, prepare your property by turning off electricity at the main fuse or breaker and the water at the main valve. If no evacuation is called and you shelter in place, make sure you have basic emergency and first aid supplies. Update contact information at myEntergy.com to ensure you receive important restoration information.

# Stay connected with us throughout a storm



#### **Notifications**

Storm and restoration updates are sent by text or phone call to customers who are signed up to receive notifications from us. Sign up ahead of a storm to receive Entergy notifications by visiting myEntergy.com or by texting REG to 36778. Customers should have their account number and ZIP code handy. The registration pattern includes spaces: REG (account number) (ZIP code). Notifications will only be sent to the contact information supplied and selected by you.

\* Depending on your wireless plan, you may be charged by your communications provider for the text messages or web data associated with this service.



#### Storm center

Our one-stop website for all things storm provides a ton of information on storm safety, preparation, restoration and regular updates specific to the storm. Visit and learn more: entergystormcenter.com.



#### Social media

Storm-related updates are shared on Twitter, Facebook and Instagram. Photos and videos are also available on Entergy's Flickr and YouTube channels. Follow us for regular updates: entergy.com/socialmedia.



# **View Outage map**

The map provides outage status and estimated restoration information to customers across the company's service area. Several viewing options are available, including a street map, imagery and topographic, with the ability to overlay weather conditions. Alert message boxes at the top of the page support the area view map with additional damage assessment and restoration information. For more information on the View Outage map, visit: entergy.com/viewoutages.

# **Navigating the View Outage map**

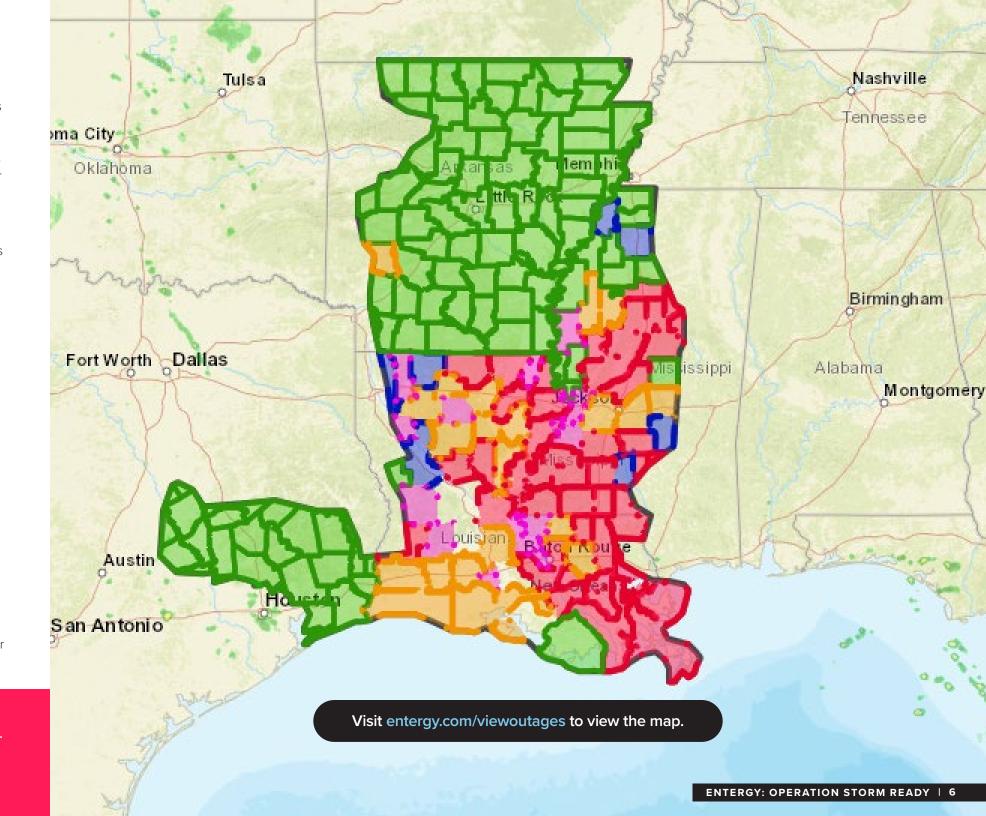
The View Outage map provides outage status and estimated restoration information to customers across the company's service area. When a major storm is not impacting our service area, red and green lines, and icons are displayed and indicate specific outages on the company's distribution system and the number of customers affected.

It's important to note that while the main line may be energized (displaying as a green line), the map doesn't show power flow all the way to the customer's property. Generally speaking, green lines indicate that the line segment is energized, or power is flowing. Red lines indicate that that line segment is de-energized, or no power is flowing. There could be damage or other issues between the energized line and the home such as transformers, down wires from the pole to the home, or damage with the meter or within the location itself.

During major storms a large amount of activity is taking place in the field to restore power as safely and as quickly as possible by shifting load across the grid, where possible, or opening and closing feeders, for example. This is part of the standard storm restoration process.

Because the map is dynamic by nature and during a major storm a large amount of activity is taking place in the field, the view changes, for example: The icons indicating outages are removed, and the red and greens are replaced with a view by parish, county or city council district. Detailed information about your geographic area, like a status on damage assessments after a storm or estimates on your power being restored, will display.

Customers may enter their zip code or service address into the search field or hover over their outlined area on the map to get information about their geographic area.



# Crews work as quickly as they safely can to restore power after severe weather strikes

Every storm is unique, but our history with storm restoration is a guide to predicting the amount of damage and restoration time following a hurricane. Before a hurricane makes landfall, we make estimates on restoration timelines based on the category, intensity, size and track of the storm.

Major hurricanes can cause extended outage restoration times. While majority of customers may be restored quicker, some of the hardest hit areas could take longer dependent on the extent of damage to Entergy's electrical facilities. For example, a strong Category 4 hurricane could cause a loss of power for several weeks in those hardest hit areas; possibly longer for a Category 5 storm.

We strive to give an estimate of how long it will take to restore most of our customers 48-72 hours before landfall. As damage assessments are completed, better estimates are formulated. While power is typically restored faster in areas with less damage, restoration times in the hardest hit areas greatly depend on the extent of damage to Entergy's electrical facilities.

Restoration where possible happens in parallel with damage assessments, for example, by initially closing circuit breakers and rerouting power.

# The restoration process is done in an orderly, deliberate manner



#### **Assessments**

Right after the storm passes, and when it's safe to do so, crews assess damage to electric equipment and facilities to determine what corrective actions and repairs are needed.



#### Power plants

Restoration begins at the source - our power plants - as they are the primary sources of power production for all customers.



#### **Transmission lines**

Large transmission lines are then repaired and restored. These high-voltage lines, which are often strung on high steel towers, deliver power to cities, towns, and major industrial facilities and serve large numbers of customers.



#### Substations

Substations are brought online; this is where voltage is lowered. Local substations must be functioning for energy to reach the power lines on your street.



#### **Distribution lines**

The lines that bring electricity to essential services, homes and businesses are then restored. For safety of our crews, we can't use our bucket trucks until sustained winds are less than 30 mph.



#### **Essential services**

Power is restored to critical community infrastructure and essential services such as hospitals, water treatment plants, police and fire stations, and communication systems.



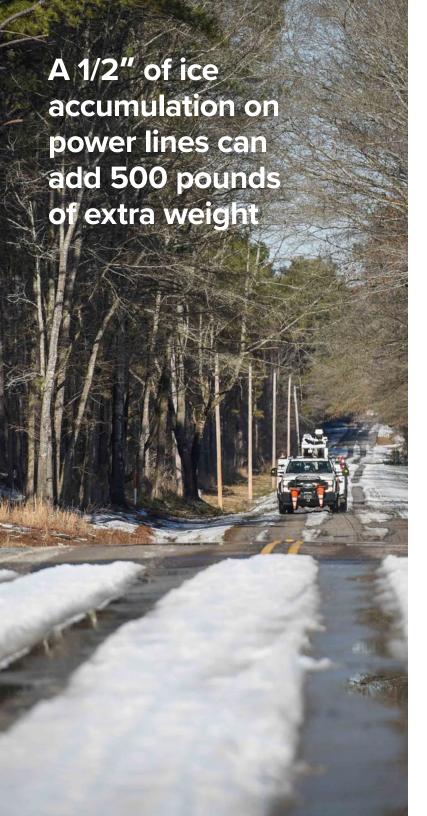
## Neighborhoods

Then, lines serving large areas of customers are restored. This returns power to the largest number of customers in the shortest amount of time.



#### Individual homes

Individual customer homes or businesses with damage, often the most time-consuming repairs, are then restored.



# Smart technology also contributes during restoration efforts

#### Advanced meters

More than 3 million customers have an advanced electric meter. The meters work together with other smart grid technology to identify power outages more accurately and automatically isolate them, without sending a crew to confirm. Major storms may hamper the ability for two-way communication with advanced meters, if there's loss of power or internet service in the area. The meters have a back-up battery life of eight hours, and will signal us upon going offline. No usage data is lost when this occurs.

## **Detecting outages**

Our advanced distribution and outage management systems provide clearer insight into the distribution system. During a storm, data sourced from advanced meters and the outage management system will help us visualize, analyze and efficiently manage repairs. Due to the sheer volume of damage and the associated outages that can result from major storms, some delays across our systems are expected. For example, when power is restored to a home it takes time for the View Outage map to reflect the change in status at the street level.

## Self-healing networks

This smart system helps improve grid reliability, reduce the number of outages and decrease the duration. It can detect, isolate and reroute power when a problem occurs. The system senses faults in real time, using, for example, sensors, switches and controls, and it recognizes power outages and automatically adjusts. Work remains underway installing smart devices that will expand these networks across the grid.

# We've grown our mobile generation offering following a storm, helping to power some essentials during storm restoration

During Hurricane Ida restoration, Entergy deployed more than 200 mobile generators that powered critical community infrastructure such as medical facilities, gas stations, grocery stores, municipal waterworks and community cooling centers. 76 megawatts were provided in total, which is equal to powering several small towns – a 230% growth rate over the 2020 hurricane season, where 60 generator units were deployed during our Hurricane Laura response.

# Ice storms bring uncertainty

Predicting outages caused by winter storms is challenging. Areas of freezing temperatures and precipitation can vary widely with just a few degrees difference between what's predicted and what actually happens.

Ice is particularly harmful to electrical lines and can increase the weight of branches by 30 times. At 1/8 inch of freezing rain accumulation, small limbs and lines become coated and can begin to cause outages by breaking limbs hanging over power lines. At 1/4 inch of freezing rain accumulation, the problem becomes worse. Younger evergreen trees will start to become so heavy that they may lean onto distribution lines, causing more outages. And, a 1/2" of ice accumulation on power lines can add 500 pounds of extra weight.

# Our restoration process in extreme cold weather is different

We use a methodical and calculated process in bringing customers back online after an outage in very cold weather. Rather than simply energizing an entire power line all at once, we must bring customers back online one section at a time to avoid damage to our system and making the situation worse.

During cold temperature extremes, customers tend to use a lot of electricity to keep heating or other devices running. Electric heaters often will run continuously, creating a constant power demand. When power is disrupted during winter, many customers leave their heating systems and appliances turned on, creating too much energy demand all at once when service is restored.

Restoring all customers on the same power line simultaneously can create large, instantaneous power demands. The instant demand could be higher than the built-in protective devices on a line were designed to handle. During extreme cold weather conditions, these specific restoration challenges are experienced not just by Entergy, but throughout the industry and the country.

Customers without power can help by turning off major appliances but leaving on a lamp or other light to indicate when power is restored. Then, gradually turn other appliances on to spread out the increase in power usage over a longer time.

# The most dangerous part of a storm is often just after it has passes. Customers should stay aware, stay safe.

Hazards are all around us following severe weather – from downed electric lines and equipment to personal generator risks or flooding dangers. Learn more about storm safety: entergy.com/stormsafety.

#### **Downed lines**

Stay away from downed power lines, equipment and areas of debris. Energized lines may not be visible among rubble, so also stay away from areas of debris.

Report downed lines immediately by calling 1-800-90UTAGE (1-800-968-8243) and call your local police station or fire department.

#### Generator

Personal generators are very useful following a disaster, but they also can be hazardous. The primary hazards to avoid when using a generator are carbon monoxide poisoning from the toxic engine exhaust, electric shock or electrocution and fire.

#### Gas

Stay alert for natural gas leaks. If you smell natural gas, or if you hear a blowing or hissing noise, open a window and leave the area immediately. Do not operate electrical switches. If possible, turn the outside main gas valve off and call your natural gas provider away from the potential leak. Entergy gas customers should call 1-800-ENTERGY (1-800-368-3749).

### Flooding

Water and electricity can be a fatal combination. Don't walk in flooded areas or standing water. Remember that wet tree limbs can conduct electricity.

## **Returning home**

Return home only when authorities advise it, and you know it's safe. Drive only on roadways and bridges that are passable, and if a power line falls on your vehicle while driving, continue to drive away from the line. Once home, don't step in water to get to the fuse box or circuit breaker.

## Customers can assure power is ready to be received at their property

Check your electric equipment attached outside. Some of the equipment is ours (service line and meter only), and some is owned by the customer. If a home or business has storm damage to equipment belonging to the customer, a qualified electrician must repair the damaged equipment before we can restore your power.

You may also need to have repairs inspected by a local authority before we can restore your power. After repairs are complete, contact us to schedule service restoration. Learn more by visiting: entergy.com/weatherhead.

# Report your power outage quickly and easily



#### Mobile app

You may download our app for iPhone or Android and use it to report an outage or check if power is restored on their street. To download the free app, go to you app store or visit: entergy.com/app.



#### Text us

Sign up to receive Entergy notifications at myEntergy. com or by texting REG to 36778. Once registered text OUT to 36778 to report an outage.



#### myEntergy

Customers can report an outage on our website by visting myEntergy.com. Log into your online account or submit as a quest.



#### Call us

Customers may experience delays when calling our call centers when severe weather strikes.

We encourage customers to use our quick and easy digital options available to report an outage, but they may call us at 1-800-90UTAGE (1-800-968-8243).



# Safety first: Use personal generators with the utmost caution

Using your own generator for emergency power is safer when you follow these basic guidelines

Personal generators are very useful following a disaster, but they also can be hazardous. The primary hazards to avoid when using a generator are carbon monoxide poisoning from the toxic engine exhaust, electric shock or electrocution and fire.

For maximum safety, follow the manufacturers' recommendations on placement and usage of personal generators. Never use a generator indoors to avoid carbon monoxide poisoning. Avoid using generators in wet conditions or when you are wet. Take care to ensure trip hazards from cords are avoided. Be certain that the cords are in good shape and are not frayed or cracked and that they have no exposed wires. Avoid fires by never storing fuel for generators indoors or near electrical devices.

# Portable generators

Portable generators are designed to provide power to a small number of selected appliances or lights. These tips will help you operate a portable generator safely:

- · Purchase your portable electric generator only from a reputable dealer who can service and maintain the unit.
- Follow the manufacturer's instructions that come with your generator. Locate the unit outdoors and away from doors, windows, and vents that could allow dangerous carbon monoxide gas to come indoors.
- The easiest way to use a portable generator is to plug lights or appliances directly into the proper electrical outlet on the generator itself. If you use extension cords, they should be run out of the way to help prevent tripping hazards.
- · Portable generators should never be connected directly to a home or building's wiring, even through an outlet. They may send electricity to the power lines crews are working to restore.
- The generator should be sized for the expected load. For example, a 3-kilowatt generator produces 3,000 watts. This would be enough to power a 1,200-watt hair dryer and a 1,600-watt toaster, with some power left over for a few lights. You should plan for additional needs when sizing the generator.
- · You should consider noise pollution as part of your decision. Your generator noise may be obtrusive to your neighbors who are without power.

# Standby built-in generators

# A built-in generator can provide more electricity than a portable unit. Here are tips to make them safer:

- A qualified, licensed electrician should install a standby built-in generator.
- The installation must include a switch to transfer the power source between Entergy and the standby built-in generator. When in use, the generator must be isolated from Entergy's electrical system to prevent feeding power back into Entergy's lines and creating a hazard for the public and power line workers. The switch must be on the customer side of the meter socket. Entergy will not allow a switch between the meter and the socket.
- Commercial customers should consult with an independent engineer or electrician to size the generator, modify wiring and provide an automatic method to transfer power during an outage.
- You should consult with local authorities about required permits before starting any work in a home or business.

# **Protect against shocks and fire hazards**

#### Shock and electrocution:

- Keep the generator dry and do not use in rain or wet conditions. To protect from moisture, operate it on a dry surface under an open, canopy-like structure. Dry your hands if wet before touching the generator.
- Plug appliances directly into the generator. Or, use a heavy duty, outdoor extension cord that is rated (in watts or amps) at least equal to the sum of the connected appliance loads. Check that the entire cord is free of cuts or tears and that the plug has all three prongs, especially a grounding pin.
- NEVER try to power the house wiring by plugging the generator into a wall outlet, a practice known as "backfeeding." This is an extremely dangerous practice that presents an electrocution risk to utility workers and neighbors served by the same utility transformer. It also bypasses some of the built-in household circuit protection devices.
- If you must connect the generator to the house wiring to power appliances, have a licensed electrician install the appropriate equipment in accordance with local electrical codes.



• For power outages, permanently installed stationary generators are better suited for providing backup power to the home. Even a properlyconnected portable generator can become overloaded. This may result in overheating or stressing the generator components, possibly leading to a generator failure.

# Fire prevention:

- Never store fuel for your generator in the home. Gasoline, propane, kerosene and other flammable liquids should be stored outside of living areas in properly-labeled, non-glass safety containers.
- Do not store them near a fuel-burning appliance, such as a natural gas water heater in a garage. If the fuel is spilled or the container is not sealed properly, invisible vapors from the fuel can travel along the ground and can be ignited by the appliance's pilot light or by arcs from electric switches in the appliance.
- Before refueling the generator, turn it off and let it cool down. Gasoline spilled on hot engine parts could ignite.

# Carbon monoxide hazards

**NEVER** use a generator indoors, including in homes, garages, basements, crawl spaces, and other enclosed or partially-enclosed areas, even with ventilation.

- · Generators can produce high levels of carbon monoxide very quickly. Opening doors and windows or using fans will not prevent CO build-up in the home. When you use a portable generator, remember that you cannot smell or see CO. Even if you can't smell exhaust fumes, you may still be exposed to CO.
- If you start to feel sick, dizzy or weak while using a generator, get to fresh air RIGHT AWAY. DO NOT DELAY. The CO from generators can rapidly lead to full incapacitation and death.
- If you experience serious symptoms, get medical attention immediately. Inform medical staff that CO poisoning is suspected. If you experienced symptoms while indoors, have someone call the fire department to determine when it is safe to re-enter the building.
- Install battery-operated CO alarms or plug-in CO alarms with battery backup in your home, according to the manufacturer's installation instructions. The CO alarms should be certified to the requirements of the latest safety standards for CO alarms (UL 2034, IAS 6-96, or CSA 6.19.01).
- · Test your CO alarms frequently and replace dead batteries.



# Safety first: Stay alert for natural gas leaks

# Safety tips to help Entergy gas distribution customers after the storm

# Call Entergy if you have

- A severed line or blowing gas. We will respond as quickly as possible.
- Lost gas service and your home is not flooded.

## If there is a strong gas odor in your house or building

- · Do not light matches.
- Do not turn lights on or off.
- Do not use your landline, cordless or wireless telephone.
- If possible, notify everyone in the building of the gas odor and to leave the building immediately.
- Call Entergy from a nearby building at 1-800-90UTAGE (1-800-968-8243).
- Do not re-enter your home or building until it is safe to do so.

#### After the storm

- We will be dedicated to restoring the system with your safety and ours as our #1 goal.
- If your gas appliances have been under water, you must call a licensed gas fitter/ plumber to inspect them and repair or replace as necessary.
- If high water has extinguished the pilot light, the gas service should be cut off as quickly as possible. To relight the pilot, call a licensed plumber.

## If your natural gas is turned off, for safety's sake, leave it off

If your home was flooded or sustained structural damage including pipe damage, you'll need a licensed plumber to inspect and repair your gas pipes.

To help ensure your personal safety and the safety of your property, Entergy may have turned your natural gas service off. Please do not attempt to turn it on yourself. This could cause a safety hazard.

# Turning your gas back on

We will arrange to have gas service turned on at your home as soon as a city or parish inspector has certified that repairs have been made and that you have had a licensed plumber and city, county or parish inspector confirm that gas service is safe to turn on. Someone must be present for your gas to be turned on.

# To prepare for your gas service to be turned back on, please

- Have repairs made by a licensed plumber.
- Have repairs certified by a city, county or parish inspector.
- Call Entergy at 1-800-ENTERGY (1-800-368-3749) when repairs have been certified by the city, county or parish inspector.

If you smell gas at your home or in any building, you should leave the area immediately.

Go to a safe area and call us at 1-800-ENTERGY (1-800-368-3749) to report the suspected leak.

# Prepare now for severe weather that may come your way

## Make a plan, make a kit

Find more useful information on entergystormcenter.com, ready.gov and redcross.org.

# Your plan

Having a family emergency plan is the best way to be prepared for severe weather. Always listen to local officials to learn about the emergency plans that have been established by your state and local government. And in any emergency, always pay attention to the instructions given by local emergency management officials. Radio and television are usually good resources for updates from local officials so you can be aware of what actions you may need to take.

# Things to consider and determine for your emergency plan are:

## How to stay in contact

How you will contact and stay in touch with others? Text messages often work best during times of an emergency, as they can get around network disruptions when phone or voice communications are down.

#### Contacts

Designate one or more out-of-town contacts, in case of emergency, so they may be reached if those closer to you cannot. Save and share all emergency contact information, so everyone knows how and who to alert.

#### Location

Where you will go for safety? What you will do during and after the severe weather h as passed.

#### School and work

Know others' emergency plans that may affect yours.

### Stay or go

If relevant and time permits, decide whether you will evacuate or stay so appropriate safety measures can be met.

#### Actions

Outline pre-storm actions, like filling up your gas tank, trimming trees not near power lines, clearing debris and bringing items that may blow away indoors.



# Your kit

A kit of basic emergency supplies and a first aid kit are easy to assemble and an important way to prepare for severe weather. Remember to check the expiration dates on your supplies often and replace the expired items.

Your kit may include:

- Water, the American Red Cross recommends one gallon of water per person per day.
- · Non-perishable food, medicine, baby supplies and pet food. Have a hand-operated can opener on hand.
- First aid kit with reference material such as a first aid book.
- Emergency equipment, such as flashlights, battery-operated radios, extension cords, emergency generators, extra batteries.
- Cellphone with charger, inverter or solar charger.
- Battery-powered or hand-crank radio and a National Oceanic and Atmospheric Administration Weather Radio with tone alert and extra batteries for both.
- Personal documents such as copies of insurance policies, identification and bank account records in a waterproof container.
- Extra cash on hand, since electrical power outages may prevent you from withdrawing money from ATMs or banks.
- · Personal hygiene items and glasses.
- Spare clothing: long pants, sturdy shoes and additional clothing if you live in a cold-weather climate.
- Sleeping bag or warm blanket for each person. Consider additional bedding if you live in a cold-weather climate.
- · Moist towelettes, garbage bags and plastic ties for personal sanitation.
- · Matches in a waterproof container.
- Fire extinguisher, whistle to signal for help, paper and pencil.
- · Wrench or pliers to turn off utilities.
- Dust mask, to help filter contaminated air and plastic sheeting and duct tape to shelter-in-place.
- Books, games, puzzles or other activities for children.



# Prepare for a hurricane

Hurricanes pose a serious threat to Entergy's system and our customers. Lowlying areas along the Gulf of Mexico are obviously vulnerable, but inland areas hundreds of miles from the coast can also suffer the high winds and flood damage of a hurricane. Preparation and careful planning can help you face the challenges hurricanes pose.

# What is a hurricane?

According to the National Oceanic and Atmospheric Administration, "a hurricane is a type of tropical cyclone – an organized rotating weather system that develops in the tropics." Hurricanes develop in stages, roughly along the equator of the earth, in the warm tropical waters of the South Atlantic Ocean, the Caribbean Sea and the Gulf of Mexico.

The first stage of development is called a tropical disturbance, a tropical weather system generally 100 to 300 nautical miles in diameter and maintaining its identity for 24 hours or more.

The second stage of development is called a tropical depression. This is a system of very dark, disturbed and stormy weather with sustained winds of 38 mph or less.

The third stage of development before becoming a hurricane is called a tropical storm. This is an organized weather system of strong thunderstorms with a distinct circulation. The maximum sustained winds are 39-74 mph. As the tropical storm's sustained winds increase to 75 mph or higher, the characteristic "eye" wall at the center of the circulation appears, thus signaling the formation of a hurricane.

# Facts you should know as part of your hurricane preparation

The eye of the storm is actually the center of the hurricane's circulation, much like the hub of a wheel. Hurricane force winds precede the eye as it approaches, then winds may die down as the eye passes. The eye is often calm, and it may even be sunny during the day. It may seem like the storm is over. However, after the eye passes, the winds will change direction and quickly return to hurricane force.

Flooding from hurricanes is a serious danger. Even if there are no high winds, the rain from widespread and torrential rains from a hurricane can be slow moving and stagnate over an area, pouring heavy rain onto an already saturated area. Slow-moving storms and tropical storms moving into mountainous regions tend to produce especially heavy rain.

Excessive rain can trigger landslides or mudslides, especially in mountainous regions. Flash flooding can occur due to intense rainfall. Flooding on rivers and streams may persist for several days or more after the storm.

Tornadoes are often spawned by hurricanes and are especially dangerous. You should remain indoors at all times during a hurricane.

## Terms to know

#### **HURRICANE WATCH:**

A hurricane watch means a hurricane is possible in your area within 36 hours. Be prepared to evacuate. Monitor local radio and television news outlets or listen to NOAA weather radio for the latest developments.

#### **HURRICANE WARNING:**

A hurricane warning is when a hurricane is expected in your area. You should leave the area if local authorities advise you to evacuate.

#### FLOOD WATCH:

Watches inform of possible flooding. If you are in a watch area, check flood action plans, keep informed and be ready to act if a warning is issued or you see floodina.

#### FLOOD AND FLASH FLOOD WARNING:

A flood or flash flood warning is issued for specific communities, streams or areas where flooding is imminent or in progress. Persons in the warning area should take precautions immediately.

# How hurricanes are measured

Hurricane strength is measured scientifically on the Saffir-Simpson scale, based on factors such as measured wind speed, water temperature under the hurricane and other weather and geological factors. The Saffir-Simpson scale rates hurricane intensity on an increasing scale of Category 1 to 5. Local officials rely on the assessment of the Saffir-Simpson scale and other official assessments in determining emergency response plans and when ordering evacuations. Source: NOAA.

# The Saffir-Simpson Hurricane Wind Scale

**CATEGORY 1** 



Extensive





damage







**CATEGORY 5** 

(157 MPH AND UP)

# Prepare your home

Whether you shelter in place or evacuate, your home will need some simple preparation to help protect it from hurricanes and their aftermath.

Government and relief agencies all recommend the following:

- Cover all of your home's windows with plywood or permanent hurricane shutters to protect your windows from high winds and flying debris. You can pre-cut the plywood in fair weather and store it off the ground in a shed, crawl space or attic until needed.
- Trimming trees and shrubs away from your house helps make them more wind resistant and lessens the likelihood of them damaging your house.
- Keep gutters and drainpipes unclogged and clear of debris.
- Bring in all outdoor furniture, decorations, garbage cans and anything else that can be blown away by high winds.
- Turn off utilities as instructed. Otherwise, turn the refrigerator thermostat to its coldest setting and keep its doors closed.
- Turn off propane tanks if your home uses them.
- The water supply will be unusable for a period of time following a hurricane. You will need a supply of water for sanitary purposes such as cleaning and flushing toilets. Fill the bathtub and other large containers with water. This water is not for drinking water; you should have a supply of bottled water for drinking and cooking as well in your basic supplies kit.



# Prepare for a tornado

Tornadoes are considered the most violent natural storm. They are formed from powerful thunderstorms and often are formed from tropical storms and hurricanes.

Some tornadoes are clearly visible with the familiar funnel-shaped cloud extending to the ground, while others are obscured by the storm clouds that form them. The skies where tornadoes form are a dark, often greenish sky, with a large, dark, low-lying cloud (particularly if rotating). Large hail is usually a sign of an impending tornado.

Because they strike with little or no advance warning and move quickly with wind speeds up to 300 mph, tornadoes are a serious threat to your safety. The following guidelines can help keep you safe if a tornado strikes.

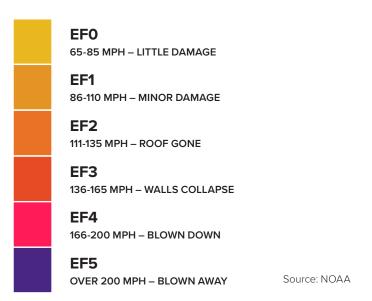
- Make sure your family knows your family emergency plan. Your family may not be together when a tornado threatens, so be sure each family member knows who to contact and where to go during and after the tornado strikes.
- Monitor weather and official news reports. This is the best way for you to learn information to help you determine if tornadoes are in the area and what action you should take.
- Select a safe place to stay. The safest place to be during a tornado is indoors. Ideally basements and cellars provide the most protection.
- Interior rooms or hallways also provide good protection from wind and flying debris. Pick a room away from windows and glass doors and cover yourself and others with a thick quilt or blanket.
- If you are in a vehicle, get out and go to a building.
   Look for shelter in an interior room or hallway away from windows.
- If your vehicle is in the open and no building is near, get out and lie as flat as possible in a ditch or on the ground.
- Do not shelter under an overpass or bridge. The tornado could cause it to collapse.

# **Tornado intensity**

The Enhanced Fujita Scale is used to measure tornado intensity after the storm has passed. The EF Scale ranges in six stages of intensity from EFO (winds 65-85 mph to EF5 (winds greater than 200 mph).

The EF rating is derived from several factors including known and estimated wind speeds, radar data, damage to structures and vegetation and the very cycloidal marks left on the ground by the tornado.

# **Enhanced Fujita Scale: wind speed estimates and damage**



# Terms to know

#### TORNADO WATCH:

A tornado is possible in your area.

#### **TORNADO WARNING:**

A tornado is occurring, take shelter immediately.



# Prepare for a thunderstorm

# Lightning, high winds, heavy rains and hail are only part of the danger

Thunderstorms have tremendous destructive power. Each year lightning kills 300 people and injures another 80 in the United States alone. In addition to lightning, thunderstorms produce heavy rains which lead to flash flooding, hail, tornadoes and strong downbursts of winds called microbursts that are capable of pushing an airliner in flight down to the ground.

Even if you don't live in an area that's prone to thunderstorms, it is still important to be prepared because they are unpredictable. Thunderstorms can pop up any time with devastating results.

Don't take thunderstorms lightly. Lightning can strike as far away as ten miles from any visible rain source. Remember the rule, "If thunder roars, stay indoors," because there is no safe place outdoors when lightning is in the area.

# What to do to prepare for thunder and lightning storms

You should remove dead or rotting trees and branches that could fall and cause injury or damage during a severe thunderstorm.

Look around and secure outdoor objects that could blow away or cause damage. Close the window shutters and secure outside doors. If shutters are not available, close window blinds, shades, or curtains.

# Terms to know

#### THUNDERSTORM WATCH:

There is a possibility of a thunderstorm in your area.

#### THUNDERSTORM WARNING:

A thunderstorm is occurring or will likely occur soon. If you are advised to take shelter, do so immediately. In any emergency, always listen to the instructions given by local emergency management officials. Remember, rubber-soled shoes and rubber tires provide NO protection from lightning.





# Prepare for extreme winter weather

Wintry weather can be pretty as a picture, but snow and ice formations can be as dangerous as they are pretty to see. The extreme cold of a winter storm makes many materials like wood and metal brittle, and the extra weight of snow and ice on power lines and trees can make them snap. In either case, power can be interrupted and you should be prepared for any possible outages.

Preparing for extreme winter weather is much the same as preparing for any other weather event. Even if you live in coastal regions where extreme cold is rare, it is still important to be prepared for freezing weather.

## Terms to know

FREEZING RAIN: Creates a coating of ice on roads and walkways.

SLEET: Rain that turns to ice pellets before reaching the ground. Sleet also causes roads to freeze and become slippery.

WINTER WEATHER ADVISORY: Cold, ice and snow are expected.

WINTER STORM WATCH: Severe weather such as heavy snow or ice is possible in the next day or two.

WINTER STORM WARNING: Severe winter conditions have begun or will begin very soon.

BLIZZARD WARNING: Heavy snow and strong winds will produce a blinding snow, near zero visibility, deep drifts and life-threatening wind chill.

FROST/FREEZE WARNING: Below freezing temperatures are expected.

During severe winter weather, power lines may be downed from falling branches or other hazards. There is no way for you to know if the line is energized or not.

If you see downed or low-hanging lines, stay away from them and call 1-800-9OUTAGE (1-800-968-8243) to report the downed line.

# Prepare your home

- Winterize your home by insulating walls and attics, caulking and weather-stripping doors and windows, and installing storm windows or covering windows with plastic. Clear rain gutters. Repair roof leaks and cut away tree branches that could fall on a house or other structure during a storm.
- Insulate pipes with insulation or newspapers and plastic and allow faucets to drip a little during cold weather to avoid freezing.
- Keep fire extinguishers on hand, and make sure everyone in your house knows how to use them.
- House fires pose an additional risk, as more people turn to alternate heating sources without taking the necessary safety precautions.
- Learn how to shut off water valves in case a pipe bursts.
- Have a licensed contractor check the structural liability of the roof to sustain unusually heavy weight caused from the accumulation of snow or water.



# **Keep this list handy**

Call 1-800-90UTAGE (1-800-968-8243) to report downed power lines or if you suspect a gas leak.

Remember, there is no way for you to tell if a power line is energized or not. Keep yourself and your loved ones away from downed power lines and call us.

If you smell gas at your home or in any other building, you should leave the area immediately. Go to a safe area and call us to report the suspected leak.

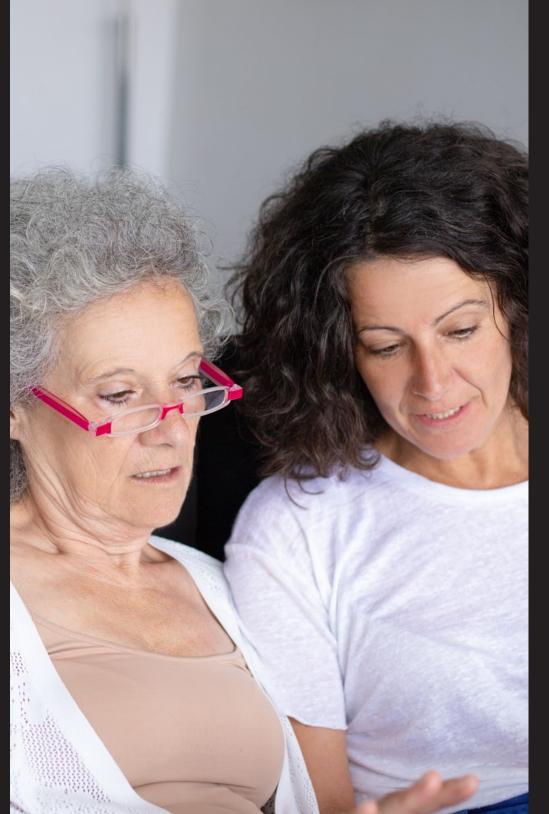
# Disaster assistance agencies:

Federal Emergency Management Agency (FEMA): Disaster Assistance 1-800-621-FEMA (3362) TDD: 1-800-462-7585 | FAX: 1-800-827-8112 fema.gov

Disaster Preparedness/Disaster Assistance websites: ready.gov | disasterassistance.gov

American Red Cross: 1-800-RED CROSS (733-2767) redcross.org





# **Quick links**

# Prepare and be safety aware

Find more information on Storm Center: entergy.com/stormsafety

Get prepared: make a plan, make a kit

Your mobile phone: a lifeline during a disaster

Stay informed: Download the app, register for notifications

Stay safe: safety after the storm

Generator safety: know the hazards

Gas safety: know the signs

Food safety: avoid loss and risk of illness

# Learn how to best prepare your home and critical safety measures to take

Flooding: water and electricity don't mix

Hurricanes: keep yourself and your loved ones safe

Tornadoes: be ready for nature's most violent storm

Thunderstorms: prepare for the unpredictable

Customers with medical needs: plan ahead to ensure your safety

# Be on alert: Stormy weather also increases scam attempts

Entergy will never demand immediate payment from customers over the phone. Customers should never share personal information with strangers. If a call sounds suspicious, hang-up and call 1-800-ENTERGY (1-800-368-3749) to speak directly with an Entergy customer service representative. Learn more about how to spot a scam by visiting, entergy.com/scams.

# Live Safe All day, every day