

Handbook for

Emergency Preparedness

Be prepared | Be informed



Preparation



Emergencies



Wildfire Safety



Electrical Safety



Food/Water
Safety



Important
Numbers



Hawaiian
Electric

In partnership with:

Hawai'i Emergency Management Agency



O'ahu Department of Emergency Management



Maui, Moloka'i, Lāna'i Emergency Management Agency



Hawai'i County Civil Defense Agency



Aloha,



We thank you for taking the time and necessary steps to familiarize yourself with emergency situations and how best to prepare for them. Individual preparedness is a critical part of how well communities can weather a disaster together. Intense storm events, high tides and flooding are occurring more frequently, and every community is vulnerable.

At Hawaiian Electric, we work hard to provide you with safe and reliable electric service. But in emergency cases, power outages can occur, and we want you to be prepared. We also want you to understand why they occur and how to minimize the inconveniences and dangers they cause.

This booklet was created to prepare you and your family for an emergency, though much of the advice can and should be used at all times. This edition has also been expanded to include information on wildfire safety and prevention as climate change brings warmer, drier conditions and the spread of non-native grasses and shrubs.

Please take the time to read this emergency preparedness guide and review it often. We hope it will help you take action in preparing for an emergency and staying safe.

Mahalo,

Shelee Kimura
President and Chief Executive Officer
Hawaiian Electric

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Public Emergency Alerts

You may be alerted to an emergency by the sounding of the State of Hawai'i Emergency Management Agency (HI-EMA) outdoor warning sirens. When you hear the sirens, tune in to any local radio or television station for emergency information and instructions.



Monitor your local news, radio or online resources during an emergency to determine exactly which shelters will be open.

Evacuation instructions may be issued over the Emergency Alert System (EAS) via television and radio.

Public Safety Power Shutoff (PSPS) Alerts

A Public Safety Power Shutoff (PSPS) is a process electric utilities use to deactivate power in high-risk conditions for safety purposes. A PSPS may be triggered in certain areas by extreme weather conditions, such as strong winds and low humidity, posing risks such as damage to power lines, airborne debris impacting power infrastructure and surrounding dry vegetation that could exacerbate wildfire hazards. We only take this step as a last line of defense to help protect communities and property during periods of heightened wildfire risk.

Hawaiian Electric will send notifications to customers via SMS text, outbound voice message and email in the event of a PSPS. Please pay attention to notifications from Hawaiian Electric and its emergency partners. If you haven't already done so, please be sure your contact information on your electric account is up to date to ensure you receive these notifications.

Special Medical Preparations

If you or someone in your care has a condition that requires special medication or life support systems, or if your medications require refrigeration, contact your medical provider on how to handle emergencies and power outages. Contact your island's Hawaiian Electric customer service office to inform them that an occupant at your residence is on life support.

The U.S. Centers for Disease Control and Prevention (CDC) recommends:

- Throw away any refrigerated medication if the power has been out for a day or longer unless the label on the medication directs otherwise.
- If medications have been at room temperature but life depends on the refrigerated medication, use only until a new supply is available.
- Replace all refrigerated medications as soon as possible.

Evacuees with health needs must either be capable of taking care of their own needs or be accompanied by a caregiver. Have a contingency plan set up with an equipment company or home health agency that includes a backup generator for life support systems. If a backup generator is not available, call 911 or your local hospital.



Communication Plan

Have your family’s communication plan ready to help members of your household reconnect after an emergency. It should include information on the multiple ways you can contact one another in case communication networks are congested, unreliable or unavailable. Remember to include information on any additional communication requirements for family members with disabilities, access or functional needs.

NOTE: *In an emergency, use the power of social media to share information quickly. Post to X (Twitter), Facebook or other social media accounts to communicate to your network that you are safe.*

Fill in your communication plan below:

Personal Information

Name: _____ Mobile #: _____

Other # or social media name: _____

Email: _____

Important medical or other information: _____

Emergency Family Contact

Name: _____ Mobile #: _____

Home #: _____ Email: _____

Address: _____

Out-of-State Contact:

Name: _____ Mobile #: _____

Home #: _____ Email: _____

Address: _____

Evacuation Plan

Consider what actions you and your family will take if an emergency forces you to leave your home. Develop an evacuation plan with meeting places, evacuation routes and safe shelter options for each specific disaster that could happen, and practice to prevent confusion during an emergency. Discuss how you will reconnect if you become separated and other communication methods are compromised.

Remember to practice the following tips for a safe evacuation:

- Always follow the instructions of local officials.
- Be familiar with alternate routes and other means of transportation out of your area. Remember that your evacuation route may be on foot, depending on the type of disaster.
- Establish meeting places that are familiar and easy to find.
- If you have family pets, identify pet-friendly shelters or other accommodations.

Fill in your evacuation plan below:

Meeting Places

Neighborhood meeting location:

Notes: _____

Out-of-neighborhood meeting location:

Address: _____

Notes: _____

Home Survival Kit Checklist

A home survival kit is essential during disasters or extended power outages that leave you confined to your home.

- Portable radio (battery, hand crank or solar powered)
- Chemical light sticks or flashlights and lanterns
- Cellular phone with backup charger
- Extra batteries
- Manual can opener and bottle opener
- First aid kit and special medications, including actual prescription information. Have a minimum 14-day supply of any prescription medications and make sure to rotate medications frequently so they do not expire.
- 14-day supply of non-perishable foods needing little or no cooking
- Baby food and formula (if applicable)
- 14-day supply of food and water for your pet or service animal (if applicable)
- Water (a minimum of one gallon per person per day for drinking, cooking, washing and sanitation for at least 14 days)
- Personal hygiene, sanitary supplies and diapers (if applicable)
- Matches or a lighter in a waterproof container
- Butane, propane or canned heat stove, and enough fuel for 14 days; or charcoal grill and charcoal
NOTE: *Never use a generator, grill, camp stove or other gasoline, propane or charcoal-burning devices indoors or in any partially enclosed area. Locate unit away from doors, windows and vents that could allow carbon monoxide to come indoors.*
- Mosquito repellent
- Whistle to signal for help
- Extra cash in small bills
- Disposable plates, utensils, hot and cold cups
- Paper napkins or towels
- Trash bags
- Heavy-duty aluminum foil
- Plastic resealable storage bags
- Basic tools and duct tape

Evacuation Kit Checklist

In addition to your Home Survival Kit, an Evacuation Kit should be prepared in case you need to leave your home.

- Sleeping bags or two blankets per person
- One complete change of clothing, face covering and sturdy shoes for each family member
- Important papers and documents (e.g., insurance and mortgage papers) in a waterproof bag or on a USB flash drive

Wildfires

Wildfire Season: Year Round

The frequency and size of wildfires across Hawai'i have substantially grown in the last two decades due to invasive fire-prone grasses moving in and around unprepared communities, increases in drought episodes and increases in human-caused accidental ignitions. Fires can and do happen at any time of year on both windward and leeward sides of all islands in Hawai'i.



Wildfire is unlike other natural hazards. In Hawai'i, most fires are accidentally started by people, which we can all do better to avoid. Fires can only burn where there is fuel to burn, which can be minimized through vegetation management and other actions. There is a great opportunity for preventing and reducing Hawai'i's wildfire threat if we all take appropriate wildfire-aware and wildfire-preparedness actions.

Stay aware of your surroundings throughout the year. Notice when vegetation is becoming dry. Notice the weather. Keep in mind that rain does not alleviate fire risk over the long term — in fact, it increases fire risk by growing more vegetation that eventually dries out and adds fuel to our already-flammable landscapes.

Throughout the year, pay attention to when grasses begin to dry out and turn yellow, brown and gray. These changes are an indicator that fire danger is increasing and you should be especially careful with any activities that may cause a spark. It is also the time to be sure that you have cleaned your yard and property so it can withstand a wildfire event and any wind-driven embers.

Also notice the temperature, humidity and wind on any given day. Fire risk is highest when it is hot, dry and windy. Be especially mindful of any activities that may cause a spark and refrain until the fire risk is lower.

Alerts, Warnings and What They Mean

- **Fire Weather Watch:** Be Prepared. The National Weather Service (NWS) issues a Fire Weather Watch that alerts the public of upcoming weather conditions which could result in extensive wildland fire occurrences or extreme fire behavior. A Fire Weather Watch means critical fire weather conditions are possible but not imminent or occurring.
- **Red Flag Warning:** Take Action. Be extremely careful with open flames and machinery that can cause sparks. Red Flag Warnings issued by the NWS alerts of the potential for widespread ignitions, or control problems with new or existing fires. A Red Flag Warning is issued when fire conditions are ongoing or expected to occur soon.
- **PSPS Alert:** As a last line of defense, Hawaiian Electric may temporarily turn off power in certain identified areas to reduce the risk of electrical infrastructure sparking a wildfire. We will do our best to provide advance notice, but if conditions are suddenly hazardous, we may have to shut off power with little or no notice. For more information about PSPS, see page 20.

Hardening Your Home

- Make sure your address is clearly visible from the road.
- Your roof is the most vulnerable part of your home because it can easily catch fire from windblown embers. Wood-shake or shingle roofs are at high risk; use fire-resistant material such as metal or tile.
- Clear any debris from your roof or gutters and cut any tree branches within 10 feet of your roof.
- Screen or enclose rain gutters to prevent the accumulation of plant debris.
- Use heavy timber or non-flammable construction material for decks. Enclose the undersides of balconies and decks with fire-resistant materials to prevent embers from blowing underneath. Keep your deck clear of combustible items such as baskets, dried flower arrangements and other debris.
- Heat from a wildland fire can cause windows to break even before the home ignites. Install dual-pane windows with an exterior pane of tempered glass to reduce the chance of breakage in a fire. Limit the size and number of windows in your home that face large areas of vegetation.
- Replace combustible building materials with non-combustible materials such as rock walls instead of wood fences.
- Prevent embers from entering your home structure by screening your lanai, vents and around the bottom of your home if it is on post and pier.

- Move all combustibles away from the home, and do not store flammable materials under or near your house.
- Remove all dead and dying vegetation and leaves from around the entire perimeter and structure of your home.
- Trim tree canopies regularly to keep their branches a minimum of 10 feet from structures, including your roof, other trees and power lines.
- Keep grass short and tree branches 10 feet off the ground to reduce “ladder fuels” which are hazardous pathways for the fire to travel from the ground up to the tree canopies, where they spread fast and far by the wind.
- Keep your yard watered. Healthy, hydrated plants are slower to ignite than dry or dead plant material.
- Remove all dead and dry vegetation from your yard, roof and rain gutters. The same winds that blow debris toward a collection area (underneath shrubs and lanai, next to the outer edges of home, etc.) will likely carry embers during a wildland fire to that same spot and ignite that pile.
- Consider replacing plants that drop leaves or need a lot of water with plants that are more drought-tolerant. Xeriscaping will help reduce maintenance, save water and money and mitigate fire risk. Many native plants and succulents are low-maintenance and drought-tolerant.
- Develop a yard maintenance schedule that prioritizes mowing grass, trimming low tree branches and removing leaf/needle piles, dry and dead vegetation and plant parts that are touching the home structure. Sweep your steps and pathways, too.

PREPARING for a Wildfire

There is little you can do to protect your home when a fire is already occurring. The time to prepare your home and yard is throughout the year, on a regular basis, and especially as conditions are getting dry and more fire-prone.

Preparing yourself, your family and your home for a wildfire is safer and exponentially more effective if done in advance and as part of your regular habits, housekeeping and landscaping.

- Do not park your car on dry grass.
- Be careful with any equipment (chainsaws, weed trimmers, lawn mowers and recreational vehicles) that may spark when using it.
- Avoid using sparking equipment, fireworks, campfires and open BBQs on dry windy days or if there is dry vegetation nearby.
- Put campfires out completely.
- Take extra care when using matches, lighters and cigarettes. Make sure they are completely extinguished when discarding.

What To Do DURING a Wildfire

- *Evacuate early. When in doubt, get out!* The safest thing you can do is to evacuate well in advance of an evacuation order. Most fatalities occur when people stay to defend their homes or get caught in evacuation traffic. By leaving early, you give your family the best chance of surviving. You also help emergency responders by keeping roads clear of congestion, enabling them to move more freely and do their job in a safer environment.
- Drive only on hardened surfaces and never drive or idle on dry grass.

What To Do AFTER a Wildfire

- Check the electric meter and the circuit breaker panel or fuse box. If they are damaged, do not attempt to turn them on.
- Be sure all appliances are in the off position before turning the main power back on.

For more information on wildfire prevention, visit Hawai'i Wildfire Management Organization at hawaiiwildfire.org/lookout



Hurricanes

Hurricane Season: June 1 – November 30

Alerts, Warnings and What They Mean

- **Hurricane Watch:** Hurricane conditions could possibly reach islands within 48 hours.
- **Hurricane Warning:** Dangerous hurricane conditions are expected to affect the islands within 36 hours or less.

Hardening Your Home

- A continuous load path provides a connection between your roof and your house's foundation and helps keep the roof from blowing off during a hurricane. Retrofitting your home to create a continuous load path includes installing hurricane clips, straps and anchors. Building codes require houses built after 1994 on Hawai'i Island and after 1995 on Maui and O'ahu to have a continuous load path connection that ties the roof to the wall to the foundation.
- Retrofit your home with hurricane clips, if needed. Building codes require houses built after 1988 on O'ahu, after 1990 on Maui and after 1994 on Hawai'i Island to have hurricane clips that tie the roof to the wall and prevent it from blowing off.

PREPARING for a Hurricane

- Unplug all unnecessary appliances.
- Turn refrigerators and freezers to their coldest setting.
- When planning to evacuate, shut off electricity at the circuit breaker panel or fuse box and gas and water at their main valves.
- Outside, take down canvas awnings or roll and secure them with sturdy rope or twine.
- Remove damaged trees and overhanging branches.
- Secure lawn furniture, garbage cans and other outdoor items that can become projectiles in high winds. Move items such as potted plants inside.
- Wedge sliding glass doors and windows with a brace or broom handle to prevent them from being lifted from their tracks or ripped loose by wind vibrations.
- Clear debris from rain gutters to prevent water damage to your property.
- Install permanent storm shutters or board windows with 5/8" exterior grade or marine plywood.
- Check door locks to ensure doors will not blow away.
- Store chemicals, fertilizers or other toxic materials in a safe section or secure area of the premises.
- Secure propane tanks. They should not be stored near sources of heat (like the water heater or other appliances).

What To Do DURING a Hurricane

- Stay away from windows and doors. Close all doors in your home, and if you are in a two-story house, go to a central first-floor room.

What To Do AFTER a Hurricane

- Be aware of hazards, e.g., downed power lines, broken gas lines, contaminated water, weakened structures, broken glass, etc.
- If you evacuated, wait until officials tell you it is safe to return home.
- Inspect your home for damage. Document damage with photographs and contact your insurance company.
- Remove standing water from your home, including soiled carpets, mattresses and other items that may contribute to the growth of mold.

Download the *Hawai'i Homeowners Handbook to Prepare for Natural Hazards* at <https://seagrants.oest.hawaii.edu>

Tsunamis

Tsunami Season: Year Round

Alerts, Warnings and What They Mean

- **Local Urgent Tsunami Warning:** Issued when a local earthquake with the potential to create a tsunami has occurred and the Pacific Tsunami Warning Center has determined damaging waves are probable. Sirens and other notification systems will sound immediately. People in tsunami evacuation zones should evacuate immediately as wave travel time may be as short as 10-20 minutes after the warning.
- **Distant Tsunami Warning:** Evacuation sirens will sound at least three hours before wave arrival. Safe site locations will be broadcast over TV, radio, mobile device or NWR.

PREPARING for a Tsunami

- Find out if you are in a tsunami evacuation zone. Review the tsunami evacuation zone maps in the "Disaster Preparedness Guide" in the telephone yellow pages directory or online at www.ready.hawaii.gov.
- Vertical evacuation is an option. Head to the fourth floor or higher of a 10-story or taller structural steel or reinforced concrete building.
- Remain at least 100 feet away from inland waterways and marinas connected to the ocean due to wave surges and possible flooding.

- If you are outside evacuation zones when a tsunami warning is issued, shelter in place to keep roadways open for people who must seek higher ground.

What To Do DURING a Tsunami

- If you are on the shoreline and feel the ground shake, observe an unusual receding of the ocean or hear a loud roaring sound, go inland or to higher elevations immediately. These are natural tsunami warnings!

What To Do AFTER a Tsunami

- Do not return to coastal areas until the "all clear" has been announced by emergency officials.

For more information visit www.ready.hawaii.gov

Floods

Flood Season: Year Round

Alerts, Warnings and What They Mean

- **Flash Flood or Flood Watch:** Flash flood or flooding is possible. Be prepared to move to higher ground.
- **Flash Flood or Flood Warning:** Flash flood or flooding has been reported or is imminent. Take necessary precautions at once. If advised to evacuate, do so immediately. Get to higher ground and out of areas subject to flooding.
- **Small Stream Flood Advisory:** Flooding of small streams, streets and low-lying areas is occurring. Avoid areas already flooded. Do not attempt to cross flowing streams.

Hardening Your Home

- Avoid building in a flood plain unless you elevate and reinforce your home.
- Grade yards and patios to speed drainage.
- Elevate your air conditioner, water heater and circuit breaker panel or fuse box if your property is susceptible to flooding.
- Install “check valves” in sewer traps to prevent floodwater from backing up into the drains of your home.
- Seal walls in basements with waterproofing compounds to avoid seepage.
- Construct barriers (levees, beams and floodwalls) to stop floodwater from entering the building.

PREPARING for a Flood

- Keep essential documents in a waterproof container. Consider creating password-protected digital copies (on a USB drive or uploaded to the cloud).
- Move essential items, valuable papers and belongings to upper floors or higher elevations.
- Put cleaning supplies in a box and elevate the box to a countertop, tabletop or higher elevations to prevent chemical spills into floodwaters.
- Do not allow children to play along streams or near drainage ditches. Both can quickly turn deadly during times of heavy rainfall.
- Check and clear drains.
- Have your insurance policies, agent’s name and itemized list of personal property, including furnishings, clothing and valuables, in a secure location such as a safe deposit box. Photographs and videos of your home (inside and out) are helpful, as they will assist an adjuster in settling claims and help prove uninsured losses.
- If you live in an area that is frequently flooded, keep materials such as sandbags, plywood, plastic sheeting and lumber on hand that can be used to protect your property.

NOTE: Sandbags should not be stacked directly against the outer walls of a dwelling. When wet, the bags may create added pressure on the structure.

What To Do DURING a Flood

- Head for higher ground and stay away from floodwaters!
- If you are caught in the house by sudden rising waters, move to the second floor (if possible) or the roof if necessary. Take warm clothing, a flashlight and a portable radio with you and wait for help. Do not try to swim to safety. Rescue teams will be looking for you.

What To Do AFTER a Flood

- Avoid floodwaters. The water may be contaminated by oil, gasoline or raw sewage. The water may also be electrically charged from underground or downed power lines.
- Stay at least 30 feet away from downed power lines and call 911.
- Return home during daylight hours, after authorities have indicated it is safe to do so.
- Turn off your home’s power at the main fuse box or circuit breaker panel. Even if the electric utility has turned off the power in your area or removed your electric meter, you must still make sure the power supply to your home is disconnected. You do not want the electric utility company to turn it on without warning while you are working on it. Do not step in water to get to your circuit breaker panel or fuse box, and call a licensed electrician. If you can get to your circuit breaker panel or fuse box without going through or standing in water, you can turn off the power yourself.
- If appliances are wet, turn off the electricity at the circuit breaker panel or fuse box. Unplug appliances and let them dry out. Have the appliances checked by a professional before using them again.
- Have your home inspected and repaired by a licensed electrician whenever your home has experienced water damage. If your appliances are wet, have them inspected and repaired by a professional before using them. Attempting to inspect and repair your home’s electrical system and appliances by yourself could result in serious injury or death.

For more information visit www.weather.gov/safety and www.fema.gov/flood-maps



Hawaiian Electric's Wildfire Safety Strategy

The safety of our customers, employees and the communities we serve is our highest priority. Hawaiian Electric first began developing a Wildfire Safety Strategy in 2019 and continues to adapt it to address the elevated risks in Hawai'i.



The Hawai'i Emergency Management Agency named wildfires as the top hazard in the state as a part of its statewide hazard mitigation plan. Ongoing drought conditions, vegetation and potential impacts to the community, cultural resources and economy were all factors that contributed to the ranking.

Wildfire safety is everyone's responsibility. We collaborate with many partners – including first responders, emergency management agencies, government, military, customers and community members – to reduce wildfire risk across all islands.

Hawaiian Electric is taking action with a set of wildfire safety measures to reduce the risk of wildfires associated with utility infrastructure in service territory areas including:

Enhanced Safety Procedures

- Circuit breakers will be set to “trip” and shut off power quickly if a disruption is detected (known as “fast trip”).
- Lines will remain de-energized until a visual inspection of the affected area is performed and deemed safe to energize.
- Visually inspecting the affected area provides an added safety measure but may lead to lengthier outages, especially at night.
- Spotters will be sent to strategic locations during certain weather events to watch for hazards, including potential ignitions. Spotters are trained to call system operators and emergency responders with information on unsafe conditions observed.
- Public Safety Power Shutoff (PSPS) may be initiated as a last line of defense against wildfires. Read more about PSPS on page 20.

Actions to Harden the Grid

- Expanding inspections of poles and lines using helicopters, drones, infrared and ground inspection.
- Addressing sag and tension in lines and adding spacers to reduce the potential for sparking.
- Switching from single-strand copper to aluminum wire or covered conductor in some areas.
- Replacing wood poles with steel poles in some areas.
- Continuing vegetation management preventative efforts adjacent to power lines within easements and County and State rights-of-way from the immediate vicinity of overhead lines.
- Using fault current indicators to quickly identify the location of faults.
- Installing cameras and weather sensors in critical areas. Video cameras assisted by artificial intelligence are one tool to gather on-the-ground data about potential hazards.

Longer-Term Action Plans

Utilizing a variety of tools to address continuing and emerging threats from extreme weather and climate change including:

- Providing more precision in wildfire-focused weather forecasting and risk modeling.
- Evaluating strategically undergrounding power lines in high-risk wildfire areas with critical evacuation routes. Undergrounding is not the right fit for all applications, as it can be extremely costly, technically infeasible and damaging to the environment and cultural resources.
- Expanding use of covered power lines, fast-acting fuses and fire-resistant poles and equipment.
- Seeking support for expanded hazard tree removal, wider rights-of-way and rights of access for clearing vegetation that threatens equipment.
- Collaborating with fire departments and emergency management agencies to refine the overall strategy.
- Seeking more federal funding for wildfire defense programs.

Visit hawaiianelectric.com/wildfiresafety for an interactive look at the actions we are taking to keep our communities safe.



Public Safety Power Shutoff (PSPS) Program

Utilities implement Public Safety Power Shutoffs (PSPS) to temporarily turn off power during high fire threat conditions to reduce the risk of electrical infrastructure sparking a wildfire. They will take place in specific areas that have been determined as high wildfire risks. PSPS is an important part of our overall Wildfire Safety Strategy to keep you and your property safe now and for years to come. These proactive power shutoffs are one way we can help prevent wildfires when certain conditions exist such as hot, windy weather in areas where dry vegetation surrounds our equipment. These conditions may lead to damaged powerlines or debris flying onto powerlines, which increases the risk of a fire starting.

We understand how much you depend on safe, reliable power, so our decision to implement a PSPS is made with great care. As the phases of our Wildfire Safety Strategy are successfully executed, a PSPS will be used as a last line of defense to keep our communities safe.

Alerting the Public

Before activating a PSPS, Hawaiian Electric will notify the public and coordinate with government officials, first responders and emergency response agencies. Hawaiian Electric will provide public notifications through news releases, social media, online outage maps and updates to its website. Providing 24- to 48-hour advance notice is planned, but if weather conditions change suddenly, shutoff may occur with little or no notice. Activate your emergency plan, keep your home survival kit handy and pay attention to notifications from Hawaiian Electric and its emergency partners.

You may hear from us through:

- Email
- Text
- Hawaiian Electric Mobile App
- Public Safety Notification
- Hawaiian Electric Website and Social Media
- News Media (TV, radio and websites)

Emergency Outage Communications Form

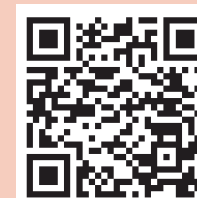
To ensure that you receive timely notifications and information about a potential PSPS outage, confirm your contact information via your online account at **hawaiianelectric.com/myaccount**.

If you are not an electric account holder but wish to be alerted of a PSPS, go to **hawaiianelectric.com/pspsalerts** and fill out an Emergency Outage Communications Form.



Medical Needs Communications Form

If you or someone in your family uses a life-support device, complete the Medical Needs Communications Form at **hawaiianelectric.com/medicalneedsalerts** to receive additional advance notifications of a power outage when possible.



The PSPS Process

No single factor drives PSPS. We carefully review a combination of criteria when determining if power should be turned off for safety. These factors generally include forecasts of strong winds and very low humidity levels, along with critically dry vegetation and on-the-ground observations from field crews.

There are three primary criteria for declaring a PSPS (keeping in mind that every situation is unique):

- Persistent drought conditions
- Wind gusts 45 mph or higher
- Relative humidity below 45%

It's important to know that a National Weather Service Red Flag Warning DOES NOT automatically trigger a PSPS. Red Flag Warnings have not been issued every year and wind gusts above 45 mph are rare in most areas in summer months.

We have also begun deploying a network of high-resolution video cameras using artificial intelligence (AI) technology and weather stations to provide enhanced situational awareness and early detection of ignitions in elevated fire risk areas near company infrastructure.

Here's what happens before, during and after a PSPS:

PSPS Alert	Happening	Restoration Begins	Restoration Complete
24-48 hours before a possible PSPS	During a PSPS	When it's safe	PSPS is over
Weather data, including statements from the National Weather Service, indicate conditions for heightened wildfire risk, and we are considering a PSPS. We'll do our best to provide advance notice, but if conditions are suddenly hazardous we may have to shut off your power with little or no notice. Activate your emergency plan, keep your home survival kit handy and pay attention to notifications from Hawaiian Electric and its emergency partners.	Power is shut off only in high wildfire risk areas for the safety of the community. We'll do everything we can to provide regular updates across multiple media platforms during the event.	Once the fire weather threat has ended, crews will begin patrolling, looking for downed lines and other hazardous conditions and making necessary repairs. Crews will restore power once it's safe, which may take hours or even days depending on the location and extent of damage.	The immediate threat has passed and power has been restored. But we'll continue to monitor conditions so we can keep our customers and communities safe.

During a PSPS activation, power will remain shut off so long as hazardous weather conditions persist. When the weather improves, power lines must be inspected and damage must be repaired before service can be restored, which may involve ground crews and aerial inspections using helicopters and drones. This process may result in extended outages lasting several hours, possibly even days depending on the location and extent of any damage. Residents in PSPS areas should be prepared in advance.

PSPS Areas by Island

We've identified specific areas on each island that have high wildfire risk and may be subject to a PSPS. The areas were developed with information on fire history, wind data, vegetation, evacuation routes and the location of Hawaiian Electric infrastructure.

To check if you are in a PSPS area or to view the PSPS maps for each island, visit hawaiianelectric.com/pspsmaps



PREPARING for a PSPS

- Turn off and unplug all sensitive equipment (e.g., computers, TVs, etc.).
- Plan ahead for meals as your stove and microwave may not be available.
- If you have a refrigerator/freezer, take all necessary measures to protect any perishable items. Check the seals on appliance doors to ensure they are well insulated.
- Consult with your solar contractor for questions pertaining to rooftop solar and/or battery systems, and how to prepare for the temporary outage.
- Assess all safety systems and alarms with an electrical connection to determine the impact the outage may have on them.
- Learn to manually open any electric security gates and garage doors (e.g., check openers for manual-release operation) or park your vehicle outside before the scheduled outage.
- Invest in surge protection for your equipment.
- Never plug a portable generator's power into a household outlet because electricity may backflow into utility lines, creating a safety hazard for utility personnel. For tips on how to safely use a generator at home, visit hawaiianelectric.com/generatorsafety.

Customers With Medical Needs

Power outages may be serious for people who use electricity and battery-dependent assistive technology and medical devices, including respirators or ventilators, power wheelchairs, oxygen or home dialysis machines. Power outages may also be serious for customers who rely on medication that requires refrigeration.

To prepare for a power outage:

- Identify a backup location where you can go if necessary.
- Consider a safe backup power source, such as an electric generator, and follow all the manufacturer's instructions to operate your generator safely.
- Regularly check that your backup or alternative power source is working properly.
- Teach family and friends how to operate your equipment and backup systems.
- Label your equipment with your name, contact information and clear instructions on how to operate the equipment.
- To the extent your device uses a rechargeable battery, maintain spare batteries and keep them fully charged.
- Maintain a supply kit with a cooler for medicine storage.
- If you use a ventilator, keep a hand-held resuscitation bag on hand.
- If you depend on dialysis or other medical service, check with your provider about their service plans during an emergency.
- If you use oxygen, check with your provider to determine if a reduced flow rate can be used to extend the life of the system. If possible, have backup canisters available.
- If you use a motorized wheelchair or scooter, have a lightweight manual wheelchair available for emergency use.

What To Do DURING a PSPS

- Keep refrigerator/freezer doors closed.
- Unplug or turn off the circuit breaker to any sensitive electronics or appliances, as a power surge may occur when power is restored.
- Be aware that narrow road conditions may require crews to block traffic near the work area so that they can access equipment and vehicles.

What To Do AFTER a PSPS

- Safely turn off your generator.
- Once power has been restored, check equipment and gradually turn on essential items one by one.
- For customers with rooftop solar and/or battery systems, consult your solar contractor regarding how to check and reset the main control panel if your system is not working.
- Your household controls electric service through a circuit breaker panel or fuse box. If power has been restored to your neighborhood after a PSPS, but some or all of your power is still not functioning in your home, check your circuit breaker to see if any of the fuses have tripped and need to be reset.

Power Restoration After a PSPS

Hawaiian Electric will restore power as quickly as possible on our islands, with safety as our top priority. Whenever it is possible to safely take some of these steps in parallel, we will do so. Even if you don't see Hawaiian Electric in your neighborhood, be assured we are working to restore power as quickly as possible. We appreciate our customers' patience.

1. SAFETY FIRST FOR CUSTOMERS AND CREWS

The safety of the public and our crews is our top priority. Before reenergizing circuits that were turned off due to a PSPS, we need to identify and eliminate any potential hazards. For the safety of our employees, assessment cannot begin until hazardous conditions have passed. Manual inspections can be time-consuming.

2. DAMAGE ASSESSMENT AND CLEARING

We must determine if there was any damage to utility equipment while the power was off. Crews will begin patrolling, looking for downed lines and other hazardous conditions. If damage is identified, we will determine the extent and the materials or equipment needed to make repairs. Trained personnel must visually inspect affected circuits prior to reenergizing to ensure that it's safe to restore power. We also must address accessibility issues, including tree trimming, making trails and/or helicopter landing/staging pads, debris removal, trenching and draining flooded underground systems.

3. ASSESS MAIN TRANSMISSION LINES AND SUBSTATIONS

If needed, we first assess main transmission lines and substations that serve as the backbone of our electric system. Substation inspections may be needed to determine if there are any problems stemming from lines feeding into the substation or the substation itself. Repairs sometimes require creating trails through vegetation or using helicopters to fly in materials, equipment and personnel to remote locations.

4. ASSESS NEIGHBORHOOD CIRCUITS

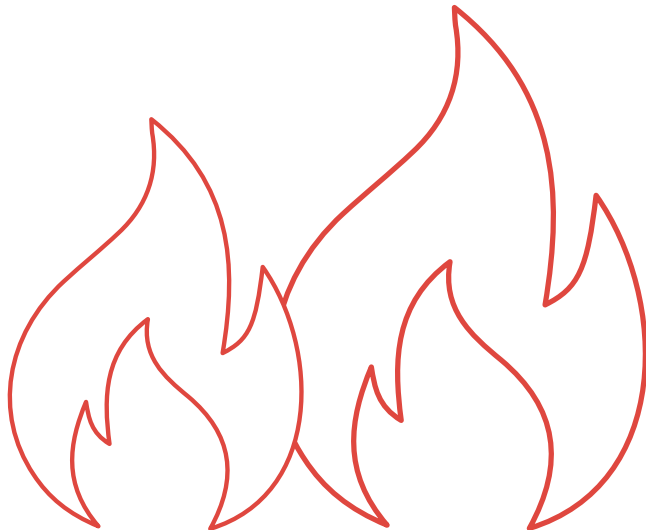
Poles, equipment, lines and/or underground cables in affected neighborhoods are inspected. Often, at this stage, we can incrementally restore customers in sections of the circuit that we have completed inspecting.

5. ASSESS SERVICE LINES AND RESTORE POWER TO INDIVIDUAL CUSTOMERS

Our crews then assess individual service lines and verify customers' electrical connecting points are safe to use so the remaining customers in affected areas can be restored.

6. FULL CIRCUIT RESTORATION

We then restore the system to its regular condition. Any customers still out of power at this point should report the outage. This report helps us learn about any outages affecting smaller pockets of customers and we can then focus on restoring power to those customers. See the phone directory in the back of this book for the outage reporting phone number on your island. O'ahu customers may also report outages online at hawaiianelectric.com/reportoutage.



Electrical Safety Tips

The power of electricity should never be taken for granted; electricity can be dangerous. Follow these safety measures before, during and after a disaster or power outage:



- Use flashlights or chemical light sticks instead of candles.
- If an outage occurs while cooking, turn off stoves, ovens and other appliances and remove items from the burners.
- Turn off/unplug any unnecessary electrical equipment, especially sensitive electronics, and NEVER cook indoors with charcoal or other fossil fuels.
- Never use a portable generator inside a home, basement or garage.
- Stay away from downed power lines (always assume they are energized and dangerous).
- If you see someone injured after touching a downed power line, call 911.

Photovoltaic Safety Tips

Photovoltaic (PV) panels generate electricity directly from sunlight; however, panels may generate electricity while exposed to other sources such as moonlight, fire and intense lighting. With the growing number of solar rooftop systems in Hawai'i, it is important to know the proper steps to take in an emergency situation. Here are some tips to keep safety first:

- Do not touch PV panels and components. Always assume they are energized. In the event your solar system is damaged in a storm or torn from your roof, contact your solar contractor and insurance company.
- Call 911 in the event of an emergency or fire. Do not handle your PV system, throw water on it or inhale fumes that may be emitted, as they are flammable and toxic. Inform 911 operators there are solar panels on the roof and specify whether they are solar water heating or PV.
- Notify first responders upon arrival that there are solar panels present and point out the A/C disconnect switch. This information is helpful for first responders' safety and protection of your home and system.
- If you have battery storage for your PV system, be sure to have proper signage visible to alert the existence of a PV battery near the main switch breaker.

- Lithium-ion batteries, which are commonly found in energy storage systems, provide high energy density. Take the proper precautions to avoid fires that may be caused by overheating, overcharging, electrical shorting, etc. Be sure to read the manufacturer's instructions on how to care for your batteries.
- Contact your solar company to inquire about specific operational details and safety measures relevant to your system.

Electrical Fires

NEVER USE WATER ON AN ELECTRICAL FIRE! Water can carry the electricity back to you and you could receive a deadly shock. If a fire occurs, make sure everyone has left or is leaving the house before attempting to fight the fire. Follow these safety tips:

- Keep a multi-purpose type "ABC" (type "C" for electrical fires) fire extinguisher handy.
- Mount the fire extinguisher in plain view, near an escape route and away from potential fire hazards such as heating appliances.
- Read the manufacturer's instructions to know how to use and care for your extinguisher.
- Do not fight the fire if the fire could block your escape route.
- Make sure someone calls the fire department for help even if the fire seems small and you think you can put it out.
- If the fire is confined to an appliance, electrical cord, outlet or switch, shut off the power by opening your main circuit breaker panel, which is usually located near the electric meter; shut off the circuit breakers or unscrew the fuses at the fuse box. Do this ONLY if you can do so without endangering yourself.
- Use your multi-purpose fire extinguisher to put out the fire.
- Even if you manage to put out the fire, have firefighters check to be sure the fire is not smoldering out of plain sight.

Downed Power Lines

When lines from a utility pole fall to the ground or on a guardrail, assume they are energized and dangerous. Energized lines can be deceiving by appearing lifeless and harmless. Don't touch these lines!

Stay a safe distance away — at least 30 feet or more!

- A live wire touching the ground causes electricity to fan out in a pool, decreasing in strength as it travels away from the center. A downed line touching a fence or guardrail can energize it for several thousand yards, posing a danger to anyone coming into contact with these structures.
- Running from a fallen line may cause your legs to bridge current from higher to lower voltage, and you may receive a shock. Instead, keep your legs together and shuffle away with both feet on the ground. Shuffle a safe distance (30 feet or more) away from other utility poles.
- If someone is in contact with a fallen line or guardrail, do not try to rescue them because electrical current can travel through them to you. Warn others to stay away and call 911.
- A car touching a downed line will become energized. If a power line falls on your car while you are inside, follow these instructions:
 1. Remain where you are, if possible, and wait for help.
 2. If you must get out of the car because of a fire or some other hazard, jump free of the car, hopping with both feet together so your body clears the vehicle before touching the ground.
 3. Never step down or simultaneously touch the ground and equipment that is in contact with the power line, as that will increase the risk of electric shock.
 4. Once you clear the car, shuffle at least 30 feet away, with both feet on the ground as described above.

As in all power line-related emergencies, call for help immediately by dialing 911 or call your electric utility company's Trouble Line at the number(s) listed in our Important Phone Number section.

Vegetation Management

When working on trees that are near power lines, a 10-foot minimum clearance from the lines is required for safety purposes. When setting up ladders and other equipment, everything should be secured so that nothing is in or can accidentally enter this safety zone. Regularly inspect and maintain your tree branches, as they can grow into overhead power lines and cause a power outage or safety hazard to anyone who comes into contact with the tree.

- Only professionally trained and certified individuals should trim trees that are touching or in close proximity to power lines.
- Avoid coming into contact with power lines, either directly or indirectly.
- Keep yourself and any ladders, tools, poles or fruit pickers at least 10 feet away from power lines.

- Do not let children climb a tree that has a power line running through or near its branches.
- Keep items, such as antennas, kites, unmanned aircraft (drones) and metallic balloons, away from power lines.
- If you see something caught in a power line, do not try to free it. Call your electric utility company's Trouble Line at the number(s) listed in our Important Phone Number section.
- If someone has received an electric shock from being too close to a power line, call 911 for immediate assistance.

Hawaiian Electric's Vegetation Management Divisions will, at your request, come out to inspect and trim your trees if they are at risk of coming in contact with an electrical power line. You can request this service by contacting the Vegetation Management Department on O'ahu or the Trouble Line for Hawai'i Island and Maui County. See the Important Phone Numbers section for specific information.

Electrical Outages and Outage Maps

Reporting an Outage

Before reporting an outage, first check to see if your neighbors still have power. If they do, check your home circuit breakers or fuses to help determine if your electric service loss might be a result of a household problem.

Report outages via the Hawaiian Electric mobile app, online via our website at hawaiianelectric.com/reportoutage or by calling the Trouble Line (see Important Phone Numbers section for your island's number).

Get information on the latest outages:

On X (Twitter):

- @HwnElectric (for O'ahu); #OahuOutage
- @MauiElectric; #MauiOutage
- @HIElectricLight; #BigIslandOutage

To view Hawaiian Electric's outage maps, visit hawaiianelectric.com/outages



O'ahu



Maui



Hawai'i Island

Generator Safety

Generators are intended to supply power to only a few household appliances. Before using a portable generator, make sure to read and follow the manufacturer's instructions. Take precautions to avoid poisoning from the generator's toxic exhaust and to prevent electric shock, electrocution and fire.

- Generator exhaust contains carbon monoxide, a poison you cannot see or smell. That's why you should never use a generator inside a home, basement or garage. Only use the generator outside, away from your home's windows, doors and vents.
- Never plug a portable generator's power into a household outlet because electricity can backflow into utility lines, creating a safety hazard for utility staff working on them.
- Protect the generator from moisture and set it on a dry surface where water cannot reach it or puddle underneath it. Make sure your hands are dry before touching the generator.
- Always start or stop a generator when no electric appliances, tools or lights are connected to it.
- Connect appliances to the generator using a heavy-duty extension cord that is designed for outdoor use. Check the cord to be sure there are no cuts or tears and protect it from getting pinched if it passes through a window or doorway.
- Check the combined wattage of all the appliances you plan to power with the generator. Make sure the combined wattage of the appliances does not exceed the generator's capacity or the capacity of the extension cord they are plugged into.
- Before refueling the generator, turn it off and let it cool down. Never overfill the fuel tank. Clean off any spilled gasoline.
- Store reserve fuel outside your home's living areas and away from any fuel-burning appliances.

Emergency Water Storage

For information on how to prepare for a water emergency, visit the Board of Water Supply's website



Ways To Sanitize Water

Boiling

Boiling is the safest method for treating water:

1. Fill a large pot with water from the tap.
2. Let any suspended particles settle to the bottom or strain the water through cheesecloth, a sheet, a coffee filter or other clean, porous material to remove as many solids as you can before treating the water.
3. Bring the water to a vigorous boil and keep it boiling for at least 5 minutes.
4. Pour the water back and forth between two clean pots. This process will help it cool and will also add air to the water to make it taste better.

Disinfecting

Use household liquid bleach to kill microorganisms:

1. Add 16 drops (about 1/4 teaspoon) of liquid chlorine bleach (5.25% hypochlorite as its only active ingredient) for each gallon of water.
2. Stir and let the water stand for 30 minutes. If it gives off a slight chlorine smell and looks clear, it is safe to use. DO NOT use scented bleach, color-safe bleach or bleaches with added cleaners.
3. If you do not smell chlorine, or if the water is still cloudy, do not use it for drinking or cooking.

Food Safety Tips

The Hawai'i Department of Health has written the "Emergency Handbook for Food Establishments," which focuses on food safety. To view and download the handbook, visit <http://health.hawaii.gov/san/food-information/>

- Food should be safe as long as power is out for no more than four hours. Keep the refrigerator and freezer doors closed as much as possible.
- Use a food thermometer to check the temperature of perishable foods, such as meat, poultry, fish, eggs and leftovers, before you cook or eat it. If the food is 41°F or colder, it is safe to eat. Discard any perishable food that has been above 41°F for over two hours. Always discard any items in the refrigerator that have come into contact with raw meat juices.
- Foods will keep frozen in the freezer for approximately 48 hours for a fully stocked freezer and 24 hours for a half-full freezer.

Foods will remain frozen longer if:

- The freezer is full or nearly full — the less crowded the freezer, the shorter the time the food will remain frozen.
- The outside air temperature is cool.
- The freezer is large and well-insulated — small freezers do not keep foods frozen as long.
- The food has a higher water content (meats, soups, seafood, etc.)
NOTE: *Food that has completely thawed and has not been held at or below 41°F should be cooked and eaten immediately. If your food still has ice crystals, it is safe to refreeze (if power is restored).*

If power is out for an extended amount of time, consider transferring your food to a freezer that is still powered such as a friend's freezer. Use dry ice if available, and remember to remove the dry ice from the freezer once the power is restored.

Food poisoning and food spoilage are caused by different bacteria. Food that has become tainted by food poisoning bacteria cannot be detected by sight, smell, touch or taste. Do not taste questionable food. When in doubt, throw it out.

For more information on food safety, visit www.fda.gov/food/resources-you-food/consumers



Important Phone Numbers

American Red Cross

State Chapter	808-734-2101
Maui County	808-244-0051
Hawai'i County	808-935-8305

City and County of Honolulu

Department of Emergency Management.....	808-723-8960
TTY Service	808-723-8966
City Help Desk.....	808-768-4385
Customer Service Main Line	808-768-9311
Environmental Services Wastewater Line	808-768-3330

Department of Health

O'ahu	808-586-8000
Maui County	808-984-8230
Hilo.....	808-933-0917
Kona	808-322-1507

Disability and Communication Access Board

(DCAB)	808-586-8121
Emergency preparedness for people with disabilities	
www.health.hawaii.gov/dcab/emergency	

Emergency Calls

Police, Fire, Ambulance	911
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Hawai'i Emergency Management Agency	808-733-4300
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Maui County Emergency Management Agency

Office.....	808-270-7285
After Hours Maui Police Department (after 4:30 p.m.) ..	808-244-6400

Hawai'i County Civil Defense Agency	808-935-0031
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After Hours Hawai'i Police Dispatch (after 4:30 p.m.)	808-935-3311
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Hawai'i Wildfire Management Organization (HWMO) ..	808-885-0900
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Hawaiian Electric (O'ahu)

Customer Service Office	808-548-7311
Claims Department	808-543-4624
Education & Consumer Affairs Department	808-543-7511
Public Safety Power Shutoff (PSPS) Hotline	844-483-8666 or 211
Vegetation Management Department.....	808-543-7836
Email: trimrequest@hawaiianelectric.com	
Trouble Line (toll free)	1-855-304-1212
(To report power outages, downed power lines or trees on power lines)	

Hawaiian Electric (Maui County)

Claims Department (Maui).....	808-871-2392
Moloka'i and Lāna'i (toll free).....	877-871-8461
Customer Education.....	808-872-3263
Customer Service Office (Maui).....	808-871-9777
Moloka'i and Lāna'i (toll free).....	877-871-8461
Public Safety Power Shutoff (PSPS) Hotline	844-483-8666 or 211
Trouble Line (toll free)	1-855-304-8181
(To report power outages, downed power lines or trees on power lines)	

Hawaiian Electric (Hawai'i Island)

Claims Department.....	808-969-0279
Customer Service Office	
Hilo Office	808-969-6999
Kona Office.....	808-329-3584
Community Outreach Division	
Hilo Office	808-969-0137
Public Safety Power Shutoff (PSPS) Hotline	844-483-8666 or 211
Trouble Line (toll free)	1-855-304-9191
(To report power outages, downed power lines or trees on power lines)	



National Flood Insurance Program Key Contacts

NFIP Call Center800-621-3362

Streetlight Outage

O'ahu City & County Honolulu Streets808-768-5300

O'ahu Highway Division808-831-6714

After Hours (after 5 p.m.).....808-485-6200

Maui County (Hawaiian Electric Trouble Line)808-871-7777

Hawai'i County Traffic Division808-961-8341

Police Dispatch (after 3:30 p.m.)808-935-3311

USDA Food Safety and Inspection Service

Meat and Poultry Food Safety Hotline888-674-6854

Water Issues

Board of Water Supply (O'ahu)

Trouble Line808-748-5000

Department of Water Supply (Maui, Moloka'i)808-270-7633

Water Company (Lāna'i).....808-565-3664

Trouble Line808-559-1152

Department of Water Supply (Hawai'i County).....808-961-8060

Trouble Line808-961-8790



Visit us online:

www.hawaiianelectric.com

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@HawaiianElectric



@HwnElectric (O'ahu)
@MauiElectric (Maui, Lāna'i, Moloka'i)
@HIElectricLight (Hawai'i)

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