

# Electrical Safety

## 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](http://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](http://hawaiianelectric.com/outages)

# 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.