

Electrical Safety During and After Storms

Severe storms and natural disasters can cause a variety of electrical safety hazards in and around our homes. Lightning, downed power lines, and floods are just a few of the serious safety concerns associated with storms. Unfortunately, many of these electrical safety hazards remain long after the storm itself has passed.

To help protect you from storm-related electrical hazards, the Electrical Safety Foundation International (ESFI) and Oakdale Electric Cooperative are providing answers to common storm safety questions.

Lightning

What if I am caught outside during a lightning storm?

- Move to a low point. Lightning hits the tallest available object, so get down low in a crouched position if you are in an exposed area.
- Stay away from trees.
- Don't hold onto metal items like bats, golf clubs, fishing rods, tennis rackets, or tools. Stay away from metal sheds, clotheslines, poles, and fences.
- Stay away from water, including pools, lakes, puddles, and anything damp—like grass.
- Don't stand close to other people. Spread out.

Is there any sort of warning before lightning strikes?

Not necessarily, but sometimes. If you feel a tingling sensation or your hair stands on end, lightning may be about to strike. Do not lie down. Instead, crouch down, tuck your head, and cover your ears.

What if I encounter a lightning storm while driving?

Slow down and use extra caution. If possible, pull off the road into a safe area. Do not leave your vehicle during a thunderstorm. A vehicle is considered safe during a thunderstorm if it is fully enclosed with a metal top such as a hard-topped car, minivan, bus, truck, etc. While inside a safe vehicle do not use electronic devices.

Are we safe from lightning if we stay inside the house?

Follow these safety tips to help keep your family safe inside while it's storming outside:

- Stay away from windows and doors.
- If possible, unplug electronic equipment before the storm arrives. Avoid contact with electrical equipment and cords during storms.

- Avoid contact with water and plumbing, including sinks, baths, and faucets.

Can I talk on the telephone during an electrical storm?

Use corded telephones only for emergencies. You can use cordless or cellular phones.

Is it okay to leave a dog outside during a lightning storm?

Doghouses are not lightning-safe, and chained animals can easily become victims of lightning strikes. You should bring your pets inside to protect them.

Power Lines

What should I do if I encounter a downed power line?

If you see a downed power line, move at least 10 feet away from the line and anything touching it. The human body is a ready conductor of electricity.

The proper way to move away from the line is to shuffle away with small steps, keeping your feet together and on the ground at all times. This will minimize the potential for a strong electric shock. Electricity wants to move from a high-voltage zone to a low-voltage zone—and it could do that through your body.

If you see someone who is in direct or indirect contact with the downed line, do not touch the person. You could become the next victim. Call 911 instead.

Can I use something that is not metal to try to move a downed power line myself?

Do not attempt to move a downed power line or anything in contact with the line by using another object such as a broom or stick. Even non-conductive materials like wood or cloth, if slightly wet, can conduct electricity and then electrocute you.

What should I do if I see a downed power line in the street while I am driving my car?

Do not drive over downed power lines. If you are in your car and it is in contact with the downed line, stay in your car. Tell others to stay away from your vehicle.

If you must leave your car because it's on fire, jump out of the vehicle with both feet together and avoid contact with the live car and the ground at the same time. This way you avoid being the path of electricity from the car to the earth. Shuffle away from the car.

Is a downed power line still dangerous if it has come down in water, like a pool or pond?

Water is a good conductor of electricity. Any amount of water—even a puddle—could become energized. Be careful not to touch water—or anything in contact with the water—near where there is a downed power line.

Flooded Areas

My basement has flooded and there is standing water. Is it safe to go down there?

Use extreme care when stepping into flooded areas. Submerged outlets or electrical cords can energize water, posing a lethal trap.

My washer and dryer got really wet during the flood. Can I start using them again after they dry out?

Do not use electrical appliances that have been wet until they have been examined by a qualified service repair dealer. Electrical equipment exposed to water can be extremely dangerous if re-energized without proper reconditioning or replacement.

Does a flood affect my home's electrical system, too, or just the appliances?

Electrical items, such as circuit breakers, fuses, ground fault circuit interrupters (GFCIs), receptacles, plugs, and switches, can malfunction when water and silt get inside. Discard them if they have been submerged. Have a licensed, qualified professional replace them.

Does it make a difference if the flood was caused by storm water or by a leaky water pipe?

Ocean water and salt spray can be particularly damaging to electrical equipment due to the corrosive and conductive nature of the salt water residue. Damage to electrical equipment can also result from exposure to flood waters contaminated with chemicals, sewage, oil, and other debris.

No matter what caused the flood, electrical appliances should be examined by a qualified service repair dealer before being re-energized, and electrical items that were submerged should be discarded and replaced by a licensed, qualified professional.

Can flooded outside areas be dangerous too?

Yes—downed power lines or submerged outlets from adjacent homes could energize the water. Use extreme caution when entering any flooded area.

Wet Electrical Equipment

My home wasn't flooded, but some electrical appliances have gotten wet. Do the same safety rules listed above apply to my situation?

Yes—they still apply. Do not use electrical appliances that have been wet until they have been examined by a qualified service repair dealer. Water can damage the motors in electrical appliances, such as furnaces, freezers, refrigerators, washing machines, and dryers.

Where can I find out more about what should be done with water damaged electrical equipment?

The National Electrical Manufacturers Association (NEMA) has produced a brochure, *Guidelines for Handling Water Damaged Electrical Equipment*, for use by suppliers, installers, inspectors, and users of electrical products to provide advice on the safe handling of electrical equipment that has been exposed to water. The NEMA brochure may be downloaded free of charge at www.nema.org/stds/water-damaged.cfm.

Portable Generators

I bought a new generator. Is there anything special I should know about installing it?

ESFI strongly recommends that a licensed electrician install home generators to ensure they meet all local codes. Also, make sure your generator is properly grounded according to manufacturer's instructions.

Can't I just plug my generator directly into one of my home's outlets?

Do not connect generators directly to the household wiring unless an appropriate transfer switch has been installed by a licensed, qualified electrician. Without the proper transfer switch, power provided by the generator can “backfeed” along the power lines, creating a significant electrocution hazard for anyone coming in contact with the lines, including lineworkers making repairs.

Can I run the generator in my garage to protect it from the rain?

Never operate a generator inside your home or in any other enclosed—or even partially enclosed—area. Generators very quickly produce carbon monoxide, which can easily enter your home. Opening windows or doors or using fans does not provide adequate ventila-

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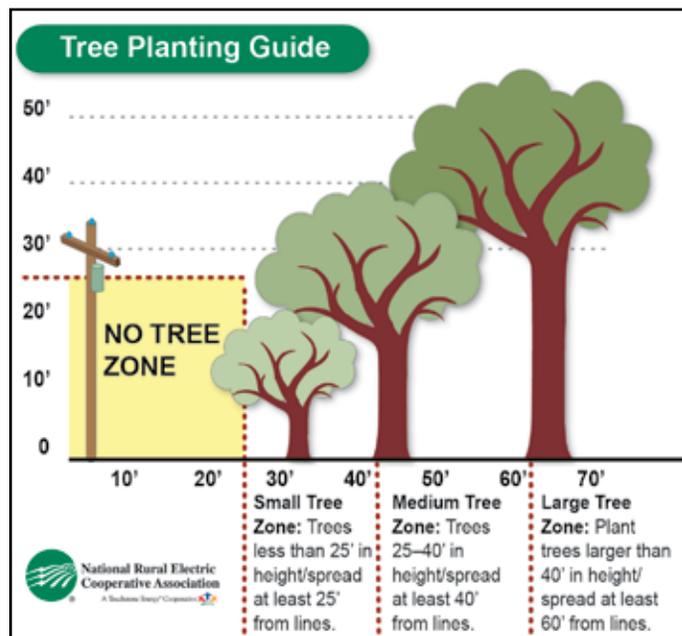
Think Safety When Planning Spring Landscaping Projects

Are you putting in new landscaping or trees this year? Or perhaps planning your garden? As you plan tree and landscape plantings, consider that trees and shrubs need space to grow above and below ground. Reduce fire hazards, power outages, and the need for frequent pruning with proper selection and planting of trees near utilities.

Tree Planting Guidelines

Tall trees surrounding your home, such as maple, oak, elm, pine, and spruce, provide summer shade to lower cooling costs and keep out cold winter winds. Medium trees, 40 feet or less in mature height, might include hawthorn, pagoda dogwood, serviceberry, star magnolia and Amur maple, while smaller trees suitable for planting near distribution lines might include crab apple, sumac, burning bush, winterberry, dwarf Alberta spruce, or dwarf Serbian spruce.

- Plant trees away from underground utilities to prevent roots from interfering with underground pipes, cables, and wires.
- If you are planting trees on your property, don't plant them directly under or within at least 25 feet of power lines for short trees, and at least 40 feet away for medium-sized trees.
- Always look for nearby power lines before you cut down any tree or trim branches. If a tree falls into a power line, contact Oakdale Electric Cooperative.
- Keep areas around electric meters, transformers, or



other electrical equipment free of any vegetation that could limit utility service access.

- If you have trees growing into or leaning toward power lines, contact Oakdale Electric. Never try to prune them yourself.

Yard and Garden Safety

Electrical appliances used outside for cutting the lawn, trimming shrubs and flowers and cutting tree limbs should be labeled for outdoor use. Awareness of electrical hazards around your property and near water can help prevent deaths and injuries. Practice these safety precautions when you work with electrical appliances:

- Unplug electrical tools and disconnect spark plug wires on gasoline-powered tools before making adjustments or cleaning jams near moving parts.
- Inspect power tools for frayed cords, broken plugs, and cracked or broken housing. Repair or replaced damaged items.
- Be sure power tools are turned off and made inoperable if they must be left unattended.
- Avoid damp conditions, including wet grass, when working with electricity, and place waterproof covers on all outdoor outlets.
- Use only fiberglass or wooden ladders if you must work near overhead wires. Any ladder that contacts a power line can be fatal, even wood ladders.
- Teach children to stay away from pad-mounted transformers (those green metal boxes) and substations, which carry high voltages.
- Never touch a person or an object that has made contact with a power line.

Call Before You Dig

Do your landscape projects include planting a tree, installing a new mailbox, or bringing in a backhoe for trench work? Before digging, call the underground utility locator service so that accidental contact can be avoided. Underground utilities, such as buried gas, water, and electric lines, can be a shovel thrust away from turning a spring project into a disaster.

To find out where utility lines run on your property, dial 8-1-1, the national "Call Before You Dig" phone number, at least 72 hours before engaging in any type of digging or excavation work. Remember calling 8-1-1 before you dig is free, it is easy and it is the law.—Sources: ESFI Electrical Safety Foundation International ■

Electric Cooling: High-Efficiency Air Conditioning

Air Conditioning Load Management saves money during the hot summer months. This program allows your home and/or business to receive an \$8 per month credit for allowing your central air conditioning unit to be shut off during peak demand periods via a radio signal emitted from Dairyland Power Cooperative, our power supplier. The air conditioning unit will be cycled, 15 minutes on - 15 minutes off, during those peak periods. The credit will be paid June, July, and August for any billing month where the account uses 400 kWh or more.



- (b) Usage pattern must be such that the load can be cycled, 15 minutes on – 15 minutes off, during peak demand periods.
- (c) Cooperative personnel will be given access to the load management equipment for maintenance and inspection purposes.
- (d) A monthly credit will be paid during the billing months of June, July, and August, when energy usage is 400 kWhs or higher.
- (e) Necessary load management equipment will be installed and maintained by a representative of the cooperative.

The load management equipment installed is not a time clock; control does not occur on a daily basis, only during peak demand periods.

- There is no charge for the load management hardware.
- An \$8 credit will be applied during the months of June, July, and August.
- The credit begins after the load management equipment is installed. Oakdale Electric Cooperative guarantees installation within 90 days.

Availability

Available under established rules and regulations for service to central air conditioners of cooperative members subject to the following:

- (a) The air conditioner must be a central system and not a window unit, wall unit, or mini-split system

Rebates may be available, contingent on the SEER rating of the air conditioning unit(s). Call for details. ■

Electric Storm Safety

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tion to prevent the build-up of carbon monoxide. Place the generator on a *dry* surface under an open, canopy-like structure. Do not operate the generator in wet conditions or where there is standing water.

Generators must be located outside a safe distance away from a home's windows, doors, and vents. Preliminary research from the Centers for Disease Control and Prevention (CDC) and the National Institute of Standards and Technology (NIST) indicates that even 15 feet from the home is too close to operate a generator safely.

Is it safe for children in the area around the generator?

No. Keep children away from portable generators at all times, and store generator fuel out of reach of children.

How many appliances can I plug into my generator at one time? Can I use it for my window air conditioner and my refrigerator at the same time?

The capacity of generators varies. Follow the manufacturer's instructions. Do not overload the generator.

My generator is powering my sump pump, but it is going to need more fuel soon. Can I refuel it while it's running so I don't have to turn off the sump pump?

Unplug all appliances from the generator before shutting it down. Turn the generator off and let it cool down before refueling. Refueling the generator while it is running is a significant fire hazard. ■



Oakdale Electric Cooperative

Your Touchstone Energy® Partner



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24-Hour Emergency Power Restoration: (800) 927-6151

Toll-free online bill payment: 866-392-4307

FAX Number: (608) 372-5173

Diggers Hotline: For underground cable locates and power line clearance information, call (800) 242-8511.