

Generator Safety

Think Safety When Operating a Generator

A generator can be a valuable piece of equipment to keep appliances working during a power outage. Generators can be either temporary or permanently installed.

A permanent generator is wired into a house by a qualified electrician using a transfer switch that prevents a generator from feeding electricity back into overhead lines, which can be deadly for linemen.

A temporary generator is powered by gasoline and should not be attached to a circuit breaker, fuse, or outlet. Before ever purchasing a generator you need to know the wattage required to run the appliances you will attach to the generator. You also need to know the surge power, which is the power it takes to turn an appliance on.

Once you have purchased the proper generator, follow these tips from Safe Electricity to properly operate your generator:

- Read and follow all manufacturer operating instructions to properly ground the generator. Be sure you understand them before hooking up the generator.
- Never operate a generator in a confined area, such as a garage. Generators can produce numerous gases, including toxic and deadly carbon monoxide. They require proper ventilation.
- Generators pose electrical risks especially when operated in wet conditions. Use a generator only when necessary when the weather creates wet or moist conditions. Protect the generator by operating it under an open, canopy-like structure on a dry surface where water cannot form puddles or drain under it. Always ensure that your hands are dry before touching the generator.
- When you refuel the generator, make sure the engine is cool to prevent a fire, should the tank overflow.

- There should be nothing plugged into the generator when you turn it on. This prevents a surge from damaging your generator and appliances.
- Be sure to keep children and pets away from the generator, which could burn them.

Shut down the generator properly. Before shutting down a generator, turn off and unplug all appliances and equipment being powered by the generator.

Operating Your Generator Safely

When the electricity goes out, generators can help you get through until power is restored. However, before ever starting a generator, it is vital that you have educated yourself on how to use one safely. There are two types of generators for homeowners to choose from:

Standby generators are installed directly to the house and are typically powered by natural gas or propane. These generators start automatically when the power goes out.

A **portable generator** is usually gas powered and is movable. You can power appliances by plugging them into it. Your generator should have more output than the wattage of the electronics you will plug into it. This way, the generator will be able to create the extra electricity it takes for the initial power surge. Make sure there is nothing plugged into the generator when turning it on. When you refuel a generator, make sure the engine is cool to prevent a fire, should the tank overflow. Be sure to keep children and pets away from the generator, which could burn them.

Generators pose electrical risks especially when operated in wet conditions. Use a generator only when necessary during moist conditions. Protect the generator by operating it under an open, canopy-like structure and on a dry surface where water cannot form puddles or drain under it. Carbon monoxide fumes emitted by the gasoline engine on the generator can be deadly. Always operate your portable generator outdoors at least 10 feet from your home. If you are not careful with the installation of a portable or standby generator, you can put the lives of

others in danger away from your home because of backfeed—a situation where a generator is feeding electricity back through your electrical system and meter into the power lines. To prevent back feed, standby generators should have a transfer safety switch installed by a professional. Portable generators should never be plugged directly into a home outlet or electrical system; use an extension cord to plug appliances into an outlet on the generator for power.

It is recommended that a generator be operated once a month for 10 minutes to ensure it is running properly. Store a standby generator in an easily accessible, weatherproof area. Have enough fuel for at least 24 hours in case of a power outage.

Meet the Challenge of Power Outages with the Safe Use of Generators

One way to meet the challenge of a power outage head on is with a generator. Generators can help you get by until your utility gets your power restored. If you are in the market for a new generator, Safe Electricity provides the following selection tips to help you make sure the generator you are buying is right for your needs:

- Before anything else, you need to think about site selection—where you will put a generator (an outdoor location that is in a dry area and on a level surface).
- Then, you should decide if a portable generator will meet your needs during an outage. A portable generator simply cannot meet all your electric needs. You must decide what electronics would be most important during a power outage. Add up the wattage of these appliances. Your generator should have more output than the wattage of your require electronics. This way, the generator will be able to create the extra electricity it takes to start up some appliances.
- An alternative to the portable generator is a permanent generator. These generators are wired directly into your home by a qualified electrician. After making the correct purchase, operating your generator safely is crucial. Safe Electricity offers these tips to keep in mind when operating your generator:

- Read and follow all manufacturer operating instructions to properly ground the generator. Be sure you understand them before hooking up the generator.
- To prevent back feed, standby generators should have a transfer safety switch installed by a professional and portable generators should never be plugged directly into a home outlet or electrical system—use an extension cord to plug appliances into an outlet on the generator to power them.
- Never operate a generator in a confined area, such as a garage. Generators can produce numerous gases, including toxic and deadly carbon monoxide. They require proper ventilation.
- Generators pose electrical risks especially when operated in wet conditions. Use a generator only when necessary when the weather creates wet or moist conditions. Protect the generator by operating it under an open, canopy-like structure and on a dry surface where water cannot form puddles or drain under it. Always ensure that your hands are dry before touching the generator.
- When you refuel the generator, make sure the engine is cool to prevent a fire, should the tank overflow.
- There should be nothing plugged into the generator when you turn it on. This prevents a surge from damaging your generator and appliances.
- Be sure to keep children and pets away from the generator, which could burn them.
- Remember maintenance between uses. It is also a good idea to inspect the fuel and oil filters, spark plug, oil level and fuel quality and to start the generator on a regular basis before an emergency situation occurs.