

Emergency Generators

When power goes off for extended periods due to ice, hurricanes, earthquakes, tornadoes and other natural catastrophes, a backup emergency generator can be very beneficial.

Generators come in different sizes. The correct generator size is determined by your power need in emergencies. The more items on backup circuits, the bigger and more costly the generator.

Two Types of Generators

Permanent Standby Generators

- Installed as part of the electrical system and provide power to the building wiring.
- An automatic switch prevents the generator from back-feeding power into the utility lines and protects the generator from damage when power is restored.
- Should only be installed by a licensed electrician. The city or county building department must inspect the switches and wiring. When the installation is complete, the local utility company should be notified a back-up system is in place.

Portable Generators

- Typically used when only a few vital electrical circuits are needed. Selected circuits for lights in the general living area of a home, TV (for entertainment and news), furnace, refrigerator, sump pumps and water-well pumps are a few of the items generally considered.
- It is important to get a generator that is adequately sized. Some electrical motors in home appliances and equipment can be ruined or damaged if they do not receive enough electrical current.

Before you buy

- Determine which items are needed in an emergency.
- Total the watts needed to determine what size generator is required. An electrician can help make this determination or you can check the manufacturer information for each appliance.
- Remember: Homes in climates that have freezing temperatures need to protect against frozen pipes and the furnace will need to be on emergency power.
- To save the food in the freezer, the refrigerator will need to be on the system as well as any stand-alone freezer.
- Homes with well-water will need to have the well pump on the generator system if toilets are to be flushed.

Safety Concerns

Electrical current from the generator may back-feed into the home's electrical system and cause damage or fire and ruin equipment if it is not properly installed. It is recommended a qualified electrician install a generator to a home electrical system.

Generators can also cause personal injury. For example, if a power company employee is working on the electrical line thinking it is not energized and electrical current created by the generator is in the line, shock or electrocution may occur. The key to better safeguards against these dangers is professional installation by a qualified electrician and the installation of a generator transfer switch.

Some transfer switches automatically trip to generator power if there is a power failure while others must be switched manually. A transfer switch works by isolating a few of the electrical circuits in the home from the incoming electrical service. If the generator is running and power is restored, the power company's electricity cannot get to those isolated circuits until the generator is turned off and the transfer switch is reset to the non-backup position.

Keep in mind a generator burns fuel and must be run outdoors. Do not run it in the garage. Cords used to connect the generator to the lights and appliances must be properly sized to prevent overheating or damage to the equipment as well.