



SAFETY NEWS

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SIZE AND SAFETY CONSIDERATIONS WHEN SELECTING PORTABLE ELECTRIC GENERATORS

Now is the time, before you need it, to plan for a power outage and analyze the responsibilities and demands associated with the purchase and use of a generator.

WHAT SIZE DO I NEED?

Most homeowners and rural residences have basic needs during an extended power outage to keep several of these items running for most or all of the time during the outage:

Sump Pump*	800-3500 watts
Refrigerator /Freezer	600-3000 watts
Water pump**	1000-3500 watts
Oil Furnace**	500-2500 watts
Gas Furnace**	400-2000 watts
Table Lamps	-100,watts per Lamp

*Always check the name plate that lists the power needed to operate the electric device. Note that electric motors usually, need three to four times more wattage for a short period time, when first starting than when running.

**Load shifting by running only one or two items at any one time may be necessary to avoid overloading many portable generators. Furnaces and water pumps are hard wired to your electrical system and can not be plugged into most portable generators. To run any electrical device that is wired directly into your residential or farm building you will need a licensed electrician to install a transfer switch and Wire your generator to this switching device that transfers the power suppliers line off and connects your portable generator on to your home or farm building wiring

CAN I RUN ALL OF MY ELECTRICAL DEVICES WITH A PORTABLE GENERATOR?

No! Portable generators are designed to be connected only to selected appliances or lamps. These generators never should be connected directly to a building's wiring system without a special electrical transfer switch. They are designed to allow the user to plug in directly, to selected electrical appliances, using extension cords, such as table lamps, sump pumps, refrigerators, fans or other items limited to the electrical wattage rating of the generator. Portable generator for home use are usually 2,500 to 12,000 watts of power output..

WHO CAN INSTALL A "TRANSFER SWITCH"?

A licensed electrician can safely connect your generator to your home or barn's electrical system with a "transfer switch" and proper wiring and connections. Most Portable generator owners opt to plug. in directly with properly sized extension cords to selected electrical appliances (sump pump, refrigerator/freezer and a table lamp) during power outages. To use water pumps and furnaces with your portable generator, you should be safe and have a transfer switch installed.

READ THE OWNER'S MANUAL BEFORE USE
Before starting your generator, carefully read and follow all of the manufacturer's instructions

Be sure that the total electric load on your generator won't exceed the manufacturer's rating.

RUN PORTABLE GENERATORS OUTSIDE!
Always locate your generator outdoors where its exhaust will vent safely away from windows and doors. Carbon monoxide gas, which is poisonous, is part of the exhaust gases given off when running your portable gasoline powered electric

generator. **PRIORITIZE YOUR NEEDS.**

Use the lowest wattage light bulbs that provide a safe level of light, reserving Power for additional lighting elsewhere and small appliances,

PLAN FUEL NEEDS FOR A GENERATOR

Remember that the greater the load on your generator, the more fuel it will use. Fuel tank capacity and the approximate running time per tankful will demand planning for a supply of fuel and refilling, time intervals. Store gasoline outside of the home and not in a garage. Use a small unattached storage shed for this purpose that is located away from your home and garage that can be locked to keep children and others away from your fuel supply. Limit your fuel supply to Just a five gallon gasoline can or two and fill your generator outside after it cools.

Always wait about five minutes for the generator to cool down prior to refueling. Excessive engine heat could cause a fire or explosion, if you spill fuel on a hot engine.

Keep extension cords out of the way so they don't present a tripping hazard -- especially in dimly lit doorways or halls. Never run cords under rugs or carpets where heat might build up or damage to a cord may go unnoticed.

Extension cords must be properly sized for wire size needed to carry the electric load. The gauge number rating of the wire determines the ability of the to wire to safely distribute a specific number of watts for a given length of distance from the generator to the electrical appliance. For example, a number 12 gauge wire in an extension cord can handle more watts than a number 16 gauge wire found in an smaller capacity rated extension cord. Overloaded extension cords can overheat and cause fires or damage to equipment. Extension cords are for temporary use and need to be protected from cuts, crushing, and abrasion.

Always consider using a ground fault circuit interrupter with extension cords to reduce the risk of electrical shock.

Safety Tips:

- *Keep Generators Outdoors when in Use.
- *Refuel After Engine Cools for Five Minutes.
- *Plug Directly Into The Generator.

1. Source: Update Safety publications, Doss/Michigan State University and <http://www.pge.com/customerservices/residential/generator.html>

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