

# Facts You Should Know About Electric Generators



An electric generator can be a valuable tool—but can also be extremely dangerous if not used correctly. If you are thinking about buying a generator for back-up electricity, here are some facts you should know before you buy.

**What can an electric generator do for you?** Electric generators can be a good way to keep computers, lights, refrigerators and other appliances running if a power outage occurs. And if someone in your home depends on medical equipment, a generator can provide much needed power in an emergency.

**Safety requirements.** Connecting a generator to another power source could damage your appliances and seriously injure or kill you or a Lompoc Electric worker who may be working on nearby power lines. If you run a generator during an outage, it cannot be connected to another power source, such as Lompoc's power lines. By law, you are responsible for making sure your generator's electricity cannot feed back into Lompoc's power lines. You are also responsible for notifying the City that you have a generator - [It's the Law!](#)\*

**When using a generator, your life and the lives of others may depend on its safe operation. Follow these safety tips:**

- Read all manufacturer instructions. Make sure you understand them and are able to follow them before using the generator.
- Carefully follow all instructions on properly “grounding” the generator.
- The total electric load on your generator should never exceed the manufacturer's rating.
- Good ventilation is important. Generators produce carbon monoxide, a colorless, odorless, poisonous gas that can result in serious injuries, and sometimes even death, if levels become too high. For this reason, your generator should never be operated in your home, garage or other enclosed building. It should always be located outside in a dry location.
- Handle fuel carefully. Turn the generator off to refuel, because gasoline and its vapors can catch on fire if they come in contact with an electrical spark. Store fuel in a properly designed container in a safe location, away from children.
- Use only UL-listed, three-prong extension cords of the proper size with your generator.
- Keep cords out of the way, so you don't trip over them, especially in dimly lit areas. Never run cords under rugs or carpets where you may not notice damage that could result in a fire.

**If you plan to permanently connect your generator to your home wiring, you are required to obtain a permit from the City of Lompoc Building Division. Call 805-875-8220 for more information.**

**\*It's the law!** All customers must report the location of a permanent or portable electric generator. California law (Health and Safety Code, Part 15 – Miscellaneous Requirements, Chapter 5 – Electric Hazards, Section 119075119090) sets clear guidelines on the operation of electric generators.

For a copy of this law visit: [www.cityoflompoc.com/electric](http://www.cityoflompoc.com/electric)

**How do you select a generator?** Generators come in many sizes. Following these steps will help you select the right size for your needs.

1. Determine the “constant wattage.” A portable generator operates a limited number of appliances and lights. Choose the items you want to run with the generator and add up the wattage they use. That total is your “constant wattage,” or the energy you will need on a constant basis to keep these items running. For help determining wattage information, see the “Calculating Energy Usage” section below.
2. Determine the “start-up wattage.” Knowing the “constant wattage” of your appliances is not good enough. Appliances with motors, such as refrigerators, freezers and air conditioners, can require two to three times their normal wattage when the motor starts up. The generator you pick must have a surge rating that meets or exceeds your added “start-up wattage” needs.
3. To determine your “start-up wattage,” identify the appliances with motors that you will run with your generator. Double the “constant wattage” of these items, then add up the totals.
4. Match voltage ratings. Most appliances are rated at 120-volts, but some larger electric appliances, such as ovens, clothes dryers and well pumps, are rated at 240-volts. Portable generators may be rated at 120-volts only, or a combination of 120- and 240-volts. Make sure the generator you choose matches the voltage ratings of the items you want to run.

**Calculating Energy Use.** To purchase the right generator, you’ll need to know the wattage of the appliances you plan to run. First, check the owner’s manual and serial plate on your appliance for the wattage (or watts) rating. If wattage is not listed, find the amperage (amps) and voltage (volts) ratings on the same plate. Multiply amps by volts to get the wattage.

The following guide gives you some information on the average wattage used by some common appliances:

Appliance	Average Wattage
Air Conditioner (room)	
6000 Btu	750-1200
12,000 Btu	1700-3250
Refrigerator/Freezer	500-800
Light Bulb (LED)	15
AM/FM Radio	50-200
Microwave	700
Television	300-400
Window Fan	200
Computer	400
Fax Machine	90
Copier	200



The City is committed to providing safe and reliable energy.  
 If you plan to run your generator, please notify Lompop Electric at 805-875-8223.  
 For information about Lompop Electric visit [www.cityoflompop.com/electric](http://www.cityoflompop.com/electric)