



Howell-Oregon Electric Cooperative

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Choosing a Generator: Which Size Is Right?

Portable generators are available for power outages as well as campsite or job site use.

Permanently mounted stand-by generators provide automatic power when the regular power supply is interrupted. Powered by gasoline or diesel fuel, they can power selected circuits within a few minutes of a power failure.

Depending on their wattage output, generators will run anything from a small lamp to a number of large appliances. To determine the size generator you will need to total the wattage of the maximum number of items you will be running simultaneously. **For items with start up ratings higher than their run ratings, use the higher rating to determine your power requirements.**

Inductive load appliances and tools such as refrigerators, washers, and power tools require additional wattage for starting the equipment. The initial load only lasts for a few seconds on startup but is very important when calculating your total wattage.

For example: running a 100 watt light bulb, a 200 watt slow cooker, a 1,200 watt refrigerator with a start up wattage of 2,900 watts and a 750 watt TV would require 3,950 watts.

Use the chart below and on back of page to find the right generator for you

Wattage listed per item is an estimate, check your appliances for exact usage, or contact an electrician or a heating and air-conditioning professional for exact specifications of each item.

(Be sure to read detailed Safety Tips Following the Chart)

Appliance or Tool	Running Wattage*	Startup Wattage*
Refrigerator/freezer	500	750
Light bulb (see marking on bulb)	50	0
Freezer (frost free) 24 cu. ft.	720	1890
Furnace fan	1100	2000
Portable oil filled heater	1500	1800
Microwave	100	0
Television	400	0
Air Source Heat Pump (3 ton)	5400	7200
Ground Source Heat Pump (3 ton)	3000	5000
Central Air Conditioner (3 ton)	5400	7200
Room Air Conditioner 12,000 Btu	1412	0
Water Heater	4000	0
Well Pump (½ hp)	150	1950

Coffeemaker	1200	0
Radio	225	0
Slow cooker	250	0
Computer – PC	300	0
Electric skillet	1200	0
Clothes washer	1150	2200
Sump Pump (1/3 hp)	800	1250
Clothes iron	1200	0
Garage door opener (¼ hp)	550	1000
Heater, Kerosene (90,000 Btu)	500	725
Small refrigerator	500	2000
Blender	375	500

Generator Safety Tips:

Avoid dangerous electrical backfeeding

- For your protection and the protection of Howell-Oregon Electric Cooperative linemen, or any utility service crewmen, against electrical shock or electrocution, call Howell-Oregon Electric Cooperative Customer Service and ask about a generator transfer switch. Installing a generator transfer switch at your meter base will assure safety against dangerous electrical backfeeding onto electrical lines during a power outage.

Never exceed the rated capacity of a generator.

- Always start the largest electric appliance first, then plug in other items, one at a time.
- Grounding the generator is recommended to help prevent accidental electrical shock.
- Choose the appropriate extension cord for the tool or appliance. Larger gauge, three-wire/three prong cords should be used when using an appliance or tool at a considerable distance from the generator.

Follow these tips to protect against shock and electrocution:

- Keep the generator dry and do not use in rain or wet conditions. To protect from moisture, operate it on a dry surface under an open, canopy-like structure. Dry your hands if wet before touching the generator.
- **NEVER** try to power the house wiring by plugging the generator into a wall outlet, a practice known as “backfeeding.” This is an extremely dangerous practice that presents an electrocution risk to utility workers and neighbors served by the same utility transformer. It also bypasses some of the built-in household circuit protection devices.
- For power outages, permanently installed stationary generators are better suited for providing backup power to the home. Even a properly connected portable generator can become overloaded. This may result in overheating or stressing the generator components, possibly leading to a generator failure.