

Heating your home when the power is out

Heating your home when the power is out can be a major challenge. There are several scenarios that this info sheet will discuss:

- A. Electrical blankets, pads, and other local heating
- B. Electric space heaters
- C. Gas furnaces , water heaters, and fan-driven wood stoves that need electricity to run
- D. Propane space heaters

A-C assume you have some access to electrical power (such as a generator) while D assumes you don't.

Standard warnings about running a generator apply. Generators produce copious amounts of carbon monoxide - an odorless, invisible killer Never run a generator indoors or even semi-indoors (such as a garage or shed, even with the door open). Never run them near a window or door.

Electric blankets, pads, and other local heating

Electrical blankets, heating pads, and other local heating has the most modest power draw (often less than a hundred watts) and can be handled by even small generators or even the larger battery packs (a 500Wh pack might run a 100 watt blanket for 5 hours). They are the first choice if they would work because of their power efficiency.

Electric space heaters

Electric space heaters (whether "ceramic," "oil," etc.) are power hogs. They usually take from 800 watts to 1800 watts, each which means that battery packs cannot run them. Typically, you will use them with a large (3000 watts or larger) gasoline or natural gas generator and they will represent a heavy load on the generator, the circuit breaker may trip if you also have another heavy load such as a refrigerator on the same generator. You may also be limited to running only one space heater.

Gas Furnaces, Tankless Gas Water Heaters, and Wood Stoves that need electricity

Your gas furnace, tankless gas water heater, or fan-driven wood stove may need electricity to run. If they have a standard household plug, you can plug them into the generator - they usually do not represent a significant load (100 watts).

However, many furnaces are required to be "hard-wired" into your house's electrical circuitry and cannot be unplugged and plugged into a generator. An electrician can rewire them so they have a "transfer switch" so that you can switch them to generator power (but of course this takes time and money to arrange). Do not try to make your own double-ended "suicide cord" as shown on internet — they are called that for a reason, they will kill you, family members, pets, or visiting friends — or they will kill the linemen that are trying to restore power to you.

Propane Space Heaters with Oxygen Sensors

Generally, you should never run a gas burning device such as a stove or heater indoors unless it vents the exhaust to the outside. A new generation of small propane space heaters have come out with "oxygen depletion sensors" that advertise themselves as safe to use indoors - they are designed to shutoff before they produce carbon monoxide. They are generally not recommended because you are relying on a single point of failure - if the oxygen sensor malfunctions, there is a high likelihood of death or severe injury. Follow all manufacturer instructions and warnings and have multiple carbon monoxide alarms of different brands in the same space.

Carbon monoxide detectors have often been found to be unreliable, with many false negatives — they aren't detecting unsafe levels of carbon monoxide. Replace your CO detector when they hit the expiration date on the back of them and in life-critical situations, have multiple units from different manufacturers.

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