

Guide to heating options.

In homes built before 1992, heating and cooling can account for up to 60 percent of the annual home energy bill. Whether you heat with electricity, natural gas, propane, fuel oil or wood, make your heating system efficient and reap the benefits of economy and comfort. (Whatever heating system you use, it will work most efficiently in a home that has been insulated and sealed.)

In northwest Oregon a number of heating systems are available.

Ducted forced-air heating systems

This type of heating system contains a furnace, fan, filter and network of supply and return air ducts. The ducts lead to heating registers in rooms throughout the home. Air heated in the furnace is forced or blown to each room in the house. Maintenance common to forced air systems include cleaning and replacing filters, blower motor maintenance and insulation and sealing of ductwork in unheated areas.

Electric/Gas/Oil/Propane/Wood

- Electric heat pump – The heat pump distributes heat like any other ducted forced-air heating system. However, the heat pump system both heats and cools, without adding an air conditioner. Also, it can work alone, or be added on to an existing ducted electric, gas, oil or propane furnace, using the furnace as a back up. Heat pumps recover heat from either the air or the ground.
- Furnace – Another common ducted forced-air heating system is the furnace, heated by electricity, natural gas, oil or propane.

Gravity air heating systems

Electric/Gas/Oil/Propane/Wood

- Some older homes may still use gravity-flow heating systems in the basements. Gravity flow systems have no forced-air fan or “blower.” Instead, home occupants depend on heat rising to distribute warm air to the floors above. If heating bills are high, it’s likely the gravity flow furnace is inefficient and should be replaced.

Zonal heating systems

Baseboards including water-filled wall heaters and gas/propane room heaters, primarily heat air.

Zonal Electric

- Baseboard – Electricity heats long baseboard elements along the exterior walls of each room. This heating is most efficient when controlled by an accurate, automatic setback type of thermostat. If baseboard heat in each

room is controlled by a room thermostat (zonal heating), unused rooms can be kept cooler, saving energy.

- Wall heaters – Electricity heats elements in wall heaters in each room. Often the heaters have fans to move heated air through the room. If the wall heater in each room is controlled by a room thermostat (zonal heating), unused rooms can be kept cooler, saving energy. It’s best if the thermostat is not built into the heater.
- Ceiling or floor cable – Electricity heats an element installed in the ceiling. PGE recommends that if a ceiling heat cable fails, it should be replaced by another type of heating system. It is difficult to repair ceiling cable heat systems.
- Portable room heaters – Types include strip, panel and liquid-filled heaters. Ensure each resistance portable heater has a tip-over switch, protective grill and sealed heating elements. NEVER USE THE OVEN TO HEAT A ROOM!

Zonal Gas/Oil/Propane/Wood/Kerosene

- Gas or propane room fireplaces and wall heaters – These often include fans to move warmed air throughout a room. For safety, and to reduce potential for interior moisture, mold and mildew, all fossil-fuel home heaters should be vented to the outside.
- Portable heaters – If an unvented fossil fuel space heater is needed in an emergency, keep two windows open for ventilation. If you need further instructions contact your local fire department.
- Water/steam baseboard/radiator – This hot water/steam home heating system includes a boiler and associated plumbing and control systems. The source of heat typically is natural gas or oil. Essentially, hot water or steam is transported by pipes to wall or baseboard radiators throughout the home. Radiant heat is transferred to the air and objects in each room.
- Wood stoves – New wood stoves typically have an efficiency rating of 6 percent to 7 percent. Using dry wood is important. Care must be exercised in installation, operation and cleaning of a wood stove and its chimney.
- Pellet wood stoves – A higher-efficiency, more convenient option to a wood stove.
- Wood fireplaces – Typically this is a very inefficient and uncomfortable type of heating because fireplaces draw lots of heated air out of the home through the chimney.

For more information on managing home costs and how to get rebates and tax credits for making your home more energy efficient, call one of PGE’s home energy experts, Monday – Friday at 503-612-3500. Or reach us online at PortlandGeneral.com/Energy.

