

## Guide to electric heating options

In a drafty home, 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 saving on your energy costs and making your home more comfortable. Whatever heating system you use, it will work most efficiently in a home that has been insulated and sealed.

In the Northwest, 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 includes cleaning and replacing filters, blower motor maintenance, and insulation and sealing of ductwork in unheated areas.

#### Electric/Gas/Oil/Propane/Wood

- **Furnace** – The furnace is the most common forced air ducted heating system. Furnaces may use electricity, natural gas, oil, or propane as the primary heating fuel.
- **Electric Heat Pump** – The heat pump is the most efficient type of heating system available for your home. It distributes heat like any other ducted forced-air system. However, the heat pump heats the home in the winter *and* can cool the home in the summer. Heat pumps can provide up to 90% of the home's heating needs, but in very cold weather, it relies on the backup heat from the existing ducted electric, gas, oil, or propane heating system. Heat pumps utilize heat from either the air or the ground.

### 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 furnace fan. Instead, home occupants depend on heat rising to distribute warm air to the floors above. Gravity flow furnaces are extremely inefficient and should be replaced.

### Zonal heating systems

Zonal systems consist of individual room heaters with individual thermostats. Energy savings can be achieved in zonal heated homes by closing the doors and turning down the thermostats in rooms that are not in use.

**Ductless Heat Pumps:** Additional heating savings can be achieved by adding a Ductless Heat Pump to heat the main living zones in a home. In addition to the energy savings, Ductless Heat Pumps provide an added bonus of air

conditioning for the home as well, making your home more comfortable in the summer.

#### Electric

- **Baseboard** – electricity heats long baseboard elements along the exterior walls of each room. Baseboard heaters operate most efficiently when controlled by an accurate, automatic setback type of thermostat. The thermostat should be mounted on an interior wall and not built into the baseboard.
- **Wall Heaters** – Zonal wall heaters also utilize electric elements to provide heat in each room. Often the heaters have fans to move heated air into the room. Wall heaters work best when the thermostat is not built into or mounted close to the heater.
- **Ceiling Cable** – Ceiling cable heat utilizes electric heating elements installed in the ceiling. MP&L 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. Adequate attic insulation is extremely important when using ceiling cable heat.
- **Portable Room Heaters** – All portable electric heaters utilize electric resistant heat elements to produce heat. Types include radiant, fan-forced, and liquid-filled heaters. For safety, ensure each portable heater is equipped with a tip-over switch, protective grill, and keep the area around the heater clear of flammable objects. **NEVER USE THE OVEN TO HEAT A ROOM!**

**Consumer Tip:** Be wary of manufacturer claims of extremely large energy savings associated with the purchase and use of plug in space heaters.

**Rebates Available:** Monmouth Power & Light (MP&L) offers rebates to help customers save energy and make their homes more comfortable by installing a Heat Pump (with or without ducts) and sealing their heating ducts.



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