

Get the most from your zonal electric heat

How to stay comfortable **and save energy**

Zonal heating systems — including baseboard heat, wall heaters and radiant heat (such as ceiling heat) — are affordable to install and can heat your home efficiently. They allow you to enjoy both comfort and energy savings because you can heat each zone or room of your home to the temperature you want and turn off the heat in unoccupied areas. **Follow these guidelines for top efficiency and comfort.**

Many tips apply to portable space heaters as well.



Check mechanical thermostats for accuracy

It's very common for mechanical thermostats (dial or sliding lever styles) to become inaccurate over time. Sometimes they can be off by as much as 25 degrees! If you have a faulty thermostat, you might actually be heating to a much higher temperature than you realize and not saving energy.

If you are unable to upgrade to an electronic thermostat (see tip on this page), you should check your mechanical thermostat against the actual room temperature.

How to check your thermostat

First, place a separate digital room thermometer (available at hardware and home stores) on the wall next to the thermostat, and check the actual room temperature. Next, turn your thermostat until you hear a click. This indicates the heat has turned on. That point at which the heat clicks on equals your room temperature — even if the thermostat reflects a different temperature than the thermometer. For example, let's say your digital thermometer tells you the actual room temperature is 70 degrees but you adjust the thermostat and your heat clicks on at the 60-degree mark. That means your thermostat is miscalibrated by 10 degrees. So when turning on your heat, keep the difference in mind and use the digital thermometer for reference.

Set for energy savings

Don't just reach for the thermostat and turn until you hear it click on. Choose an energy-efficient setting. For cooler months, 68 degrees is a good setting for comfort and energy savings. At bedtime or when you're away, drop it to 60 degrees to save more energy. (Exception: For ceiling cable heat, the maximum setback is 2 to 3 degrees.) Ask everyone in your household to stick to these settings.

Save with each degree

As a rule, for every degree you lower the temperature, your electricity use drops by 2 percent. In order to achieve these savings, you must lower the setting in all zones in your home.*

Set the thermostat to the desired temperature — no higher

A room will heat up just as fast with the thermostat set at 70 degrees as it will set at 80 degrees. Setting it higher overheats your home and wastes energy.

Upgrade to an electronic programmable thermostat

If your situation permits, an electronic thermostat is highly recommended. They are more precise than mechanical thermostats and help improve comfort and economy.

Look for a model with a programmable setback feature to automatically lower temperatures at bed time, or when you're away.



Close doors

Turn the heat down or off in unused rooms and close the doors to keep heat where you want it. But watch for mold or mildew problems. Also remember that most zonal heat thermostats do not have an actual "off" setting, just a "low" setting — and the low temperature can vary depending on the accuracy or settings of your thermostat. With a "low" setting, the zonal heater might still cycle on and off, wasting energy, unless you turn it off completely at your electrical breaker panel.

*Individual circumstances will vary. Contact the PGE Energy Experts for more information.

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How much energy does zonal heating use?

For most people, heating is usually the biggest energy cost during cooler months. This chart gives a general idea of how much it may cost to operate different zonal heating systems. Your actual costs will vary depending on the size of your home, number of heating units, wattage, hours of operation and other circumstances.

Type of heat	Energy use	Hourly cost to operate one heater	Monthly cost example for heating a two-bedroom apartment, four hours per day
Baseboard heat	250 watts per linear foot	16 cents (1,500-watt, 6 ft. unit)	\$75 (Two 4-ft. and two 8-ft. baseboards)
Wall heaters	1,500 – 2,000 watts most common; can range from 750 – 4,000 watts	16 cents (1,500-watt model)	\$63 (Two 1,000-watt wall heaters and two 1,500-watt wall heaters)
Portable electric space heater	Most are 1,500 watts	16 cents	\$28 for one space heater (One space heater will not heat an entire two-bedroom apartment. Generally used as supplemental heat.)

Note: No estimate is given for ceiling heat or other types of radiant heat because systems vary widely; contact the PGE Energy Experts for more information.

Vacuum heater grills regularly

This keeps fans running efficiently and quietly, and it extends the life of the heater. Turn off power to the heater before vacuuming the grill or fins.

Allow air to circulate

Never place anything in front of a heating unit with a fan. If you have baseboard heat and need to place furniture in front of it, place the furniture at least a foot away from the wall so warm air can rise from the baseboard and circulate throughout the room.

Avoid cool drafts

Keep thermostats at the same setting in rooms that connect to each other to prevent drafts. Drafts naturally flow from a cooler space to a warmer space.

Weatherize to maximize comfort and savings

Insulating your home and sealing air leaks will make your home more comfortable. You'll save energy because your heating system won't have to work as hard. If you rent, discuss weatherization steps with your landlord. Consider using caulk, weatherstripping and spray-on insulating foam to seal around the doors, windows (not the moving parts) and holes where pipes exit the wall.

Tips for portable electric space heaters

- *Safety should be your top concern with electric space heaters. Choose only models with all of the current safety features, like a tip-over safety shutoff, and an Underwriters Laboratory label. Read and follow the manufacturer's safety precautions.*
- *All electric space heaters are 100 percent efficient, no matter how much they cost; all of the electrical energy is converted to heat.*
- *Most electric space heaters use about 1,500 watts, and all 1,500-watt models produce the same amount of heat.*
- *Choose a heater with thermostatic control and a timer to help you avoid overheating a room and wasting energy.*



Source: EnergyIdeas Clearinghouse

Find more energy-saving tips online:

PortlandGeneral.com/EnergySavings

Or call the PGE Energy Experts: 503-612-3500 in Portland; 1-800-722-9287 outside of Portland

