

Can a **portable electric space heater** help cut your **winter heating bills**?

“Use space heaters only as a supplementary source of heat. These devices are not intended to replace the home’s heating system.”

Underwriters Laboratories

BY ROBERT A. DICKELMAN

At this time every year – when folks first fire up their furnaces – the phones start ringing at local electric cooperative offices across the state. Many of the calls are from members wanting to know if a portable electric space heater can help reduce their utility costs for the upcoming heating season.

The answer is *maybe*.

To your home’s electric meter, all space heaters look alike

A space heater is a pretty simple device – and it’s close to 100 percent efficient, since almost all of the electric energy that goes into the unit is converted to heat. That being said, keep in mind that any time

a portable electric space heater is turned on and producing heat, it’s also consuming energy.

Government standards limit the maximum output of a portable electric space heater to 1,500 watts, which is far too low for heating an entire home or even a large room. In fact, one rule of thumb suggests that it takes 10 watts of electricity to heat one square foot of space. In other words, 1,500 watts of electricity should heat a room measuring 150 square feet – but that’s without considering other factors affecting the room, such as its location within the house, insulation, air leaks and number of windows and doors.

If you set up a space heater in an always-cold room to take the chill off, your power bill is going to increase unless you make other changes at home to reduce your energy use. In fact, the only way a portable electric space heater is going to help you lower your annual heating bill is if you use it to heat the room you’re in and turn down the thermostat for the rest of the house.

This premise is the basis for claims made by the manufacturers of some portable electric space heaters that promise to reduce your heating bill by up to 50 percent. One manufacturer even suggests turning down the thermostat as low as *50 degrees* for the rest of the house, while using a space heater to warm the single room you’re occupying!

What problem are you really trying to solve?

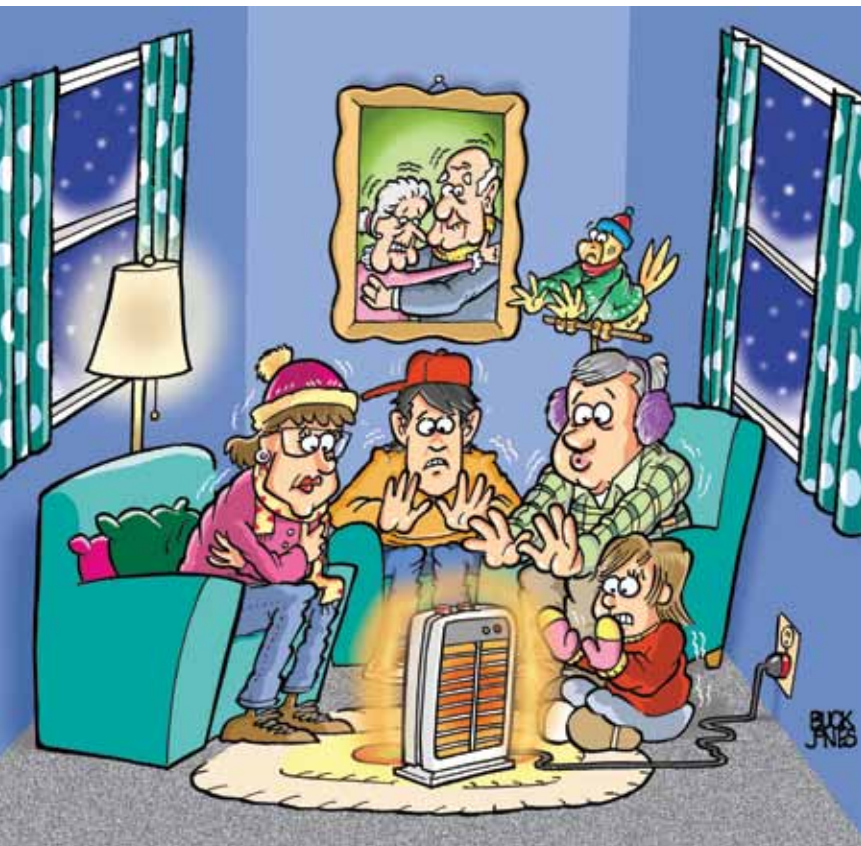
Some people buy a portable electric space heater to warm a chilly room. Others are trying to compensate for energy-wasting problems in their homes, such as a poorly maintained furnace, inadequate insulation, missing caulk around windows or damaged weather stripping around doors.

If you’re intrigued by the idea of experimenting with **zone heating** – in this case, setting the temperature of all the rooms in your home considerably lower than the one room warmed by a portable electric space heater – check the Honeywell Heat Savings Calculator at www.honeywellheatsavings.com. You may find that – excluding the cost of the space heater – you might be able to save a couple of hundred dollars a year on your utility bill, if you’re willing to put up with the discomfort of an always-chilly house and the inconvenience of moving a portable electric space heater to whatever room you’re occupying at the time.

In truth, based on energy-saving ideas from sources such as ENERGY STAR®, spending the same amount on energy-saving home improvements as you’d spend on a space heater likely would be a better investment in whole-house comfort – and reduced heating and air-conditioning bills for many years to come.

Here’s your opportunity to be a savvy shopper

When you go shopping for a portable electric space heater, you’re going to find a lot of options.



Fan-forced designs provide immediate heat for a small space or an entire room. **Convection** styles offer a gentler heat that's perfect for families with kids and pets, but they're not the best choice for drafty rooms.



Ceramic heaters get up to temperature faster than other styles and come in sizes appropriate for warming a small area for one person or an

entire room. **Quartz** and

radiant models warm people

and objects – instead of the room – just like the sun does. **Oil-filled** units look and work like a radiator and are very quiet, but they're heavy. **Baseboard** versions run silently, supply consistent warmth and take advantage of convection currents along walls and under windows to distribute warmth. And thin **micathermic** panels noiselessly deliver gentle heat evenly throughout a room.

Unfortunately, no government agency or independent organization tests the heating performance of all portable electric space heaters, which makes it more difficult for you to compare models. However, there are a few Web sites that offer tests or consumer reviews of selected units; in all cases, enter *space heater* in the search box on the home page.

- **Amazon.com** offers a wide selection of products, backed by buyer reviews that often are brutally honest and critical. Listings include pricing and specifications too. Visit www.amazon.com.
- **ConsumerReports.org** offers general buying information and lab test results, but you'll have to pay a joining fee to gain access to all the information that's available at this Web site. Check www.consumerreports.org.
- **ConsumerSearch** “reviews the reviewers” by republishing and rating reviews from other sources. Go to www.consumersearch.com.
- **Epinions.com** is a platform for average folks to offer their reviews of a wide variety of products and also offers links for price comparisons. See www.epinions.com.

Look for these features

Check for the UL mark on any portable electric space heater you're considering, which means representative samples of the appliance have met Underwriters Laboratories' stringent safety standards. Most high-quality portable electric space heaters will include all or most of these features.

- A tip-over safety switch, which automatically shuts off the heater if it's knocked over
- Thermostatic control, so the unit runs at full capacity to bring the room to the desired temperature and then switches to run at an energy-saving, low-

er-wattage level to maintain room temperature

- Automatic shutoff if the appliance overheats – with a manual reset, giving you the opportunity to check the unit and make sure everything is working properly before restarting it
- Integrated carrying handle (or easy-rolling wheels for larger units)
- Cool-to-the-touch cabinet
- Multiple-year warranty

Here are some other features you might like to have.

- Timer that shuts off the unit after a set number of hours to prevent unintended operation
- Easy-to-use digital readout for precise temperature control and other functions
- Remote control that duplicates the functions on the control panel
- Programmable timer to start the unit at a specific time

Buy from a trusted source

Choose a portable electric space heater with a brand name you recognize from a source you trust. Check with local retailers and big-box stores; many of them will let you plug in their display units to test controls and heat output.

If you can't find what you're looking for locally, check magazine and newspaper ads and Internet sellers for reputable mail-order companies that offer a full money-back guarantee. Above all, avoid buying from a salesperson who's passing through town or a temporary sales location in your area that is here today – and gone forever tomorrow.

Follow these tips for safe operation of your portable electric space heater

- Keep the space heater at least three feet away from household combustibles.
- Do not use an extension cord with a space heater unless absolutely necessary. If you must use an extension cord, be sure that the cord is marked *12-gauge* or *14-gauge*, so the cord's wiring is heavy enough to support the load of the space heater.
- Inspect the space heater's power cord regularly. Do not use the heater if it has a damaged cord.
- Check periodically for a secure fit of the space heater's plug in the wall outlet. If the plug becomes very hot, the outlet may need to be replaced by a qualified technician.
- Place the space heater on a flat, level surface. Do not put the heater on furniture, since it may fall and dislodge or break parts in the heater.
- Unless the heater is designed for use outdoors or in bathrooms, do not use it in damp, wet areas.

Underwriters Laboratories (UL), an independent product safety testing organization, provided these tips. For more safety tips from UL, go to www.ul.com. You also can visit the U.S. Consumer Product Safety Commission Web site at <http://www.cpsc.gov/volstd/heater/heater.html>.

