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Sealing Off The Chills, Chopping Heating Bills

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The Hartford Courant

Almost every home has tiny crevices where warm air escapes. So once it's time to turn the heat up -- and that season is here -- it pays to help keep it in your house.

Energy experts said there are a number of steps homeowners can take to prevent heat loss from a house and keep heating bills down. Even if you checked your home for leaks and caulked everything a couple of years ago, chances are it's leaking again. Homes settle occasionally, and caulking cracks or falls apart.

``Up to 10 percent of a home's heat loss is tracked directly to poorly caulked windows or ill-fitting storm windows," said Frank Poirot, a spokesman with Northeast Utilities, which provides energy saving tips for each season on its Internet web site, www.cl-p.com. ``These are things that anyone can do, simple things like cleaning a filter. And with older homes, almost anything you do makes a significant difference in your heating bills."

According to the U.S. Department of Energy, an average home in Greater Hartford spends about \$850 annually on heating bills. A home with an energy-efficient heating system and insulation can save as much as 50 percent, or \$425 a year, according to the Energy Department.

Among the energy saving options are increasing the amount of insulation in an attic; installing storm windows, which according to the Energy Department can reduce your home heat loss by 25 percent to 50 percent; cleaning filters on forced-air furnaces at least once a month; sealing flues in unused fireplaces; and sealing exposed areas around pipes leading outdoors.

``An energy-saving measure that pays for itself in two or three years is going to be a very good investment," said Alan Silverstein, director of the Center for Ecological Technology, a nonprofit energy conservation organization based in Pittsfield, Mass. ``And when the price of fuel increases, the payback period decreases."

To begin the process, experts recommend testing your home for air tightness. On a windy day, hold a lighted incense stick next to your windows, doors, electrical boxes, plumbing fixtures, outlets, ceiling fixtures, attic hatches and other areas where there is a possible air flow to the outside. If the smoke stream travels horizontally, you have located an air leak that may need caulking, sealing or weather-stripping.



One of the easiest ways to prevent heat loss is by caulking -- it is relatively easy to do and a few dollars can save hundreds of dollars a year, the experts said.

Caulk is a type of sealer, usually poured from a tube, that stops moisture and air from penetrating (or escaping) your home. It is frequently used on the interior and exterior of door frames and windows, on foundations, and siding.

Caulking guns can range in cost from a few dollars to about \$25 for a professional model. The better the gun the easier it is to operate.

Here's how it works: Make sure the area you're going to caulk is clean and free from debris. If you've caulked there before, scrape out all the old caulk. Carefully squeeze the caulk over the joint you need to cover. Put the tip of the tube on the joint and squeeze at a steady, constant pace and try to keep the amount of caulk the same.

Some people like to spread the caulk further into a joint or more evenly by moistening one of their fingers and gently pushing the caulk into the joint after an entire bead has been run. Others like to use a putty knife. It may not be necessary to use either if the original bead you applied is well into the joint and looks even.

``Houses expand and contract with hot and cold weather," Poirot said. ``At the joints where the house frame meets windows is where the expanding and contracting takes its greatest toll, and that's why caulking is important.'

Adding insulation to your home is another way to save on heating bills.

Inadequate insulation is the leading cause of energy waste in homes, according to the energy department. Insulation, they said, will not only keep your house warmer in winter, but cooler in summer and it can also act as a sound absorber, keeping noise levels down.

It is possible to add insulation to almost any house, either yourself or by hiring a professional. (It's easier to do the job yourself if the structural framing is accessible, for instance, in unfinished attics or under the floor over an unheated space).

When installing insulation, the energy department says it is most important to insulate your attic, including the attic door or hatch cover, as well as provide the recommended level of insulation under floors above unheated spaces, and around walls in a heated basement or unventilated crawl space.

Finally, a cost-free method of saving on your heating bill is to simply adjust your thermostat. Experts recommend setting the thermostat to 68 degree when you're at home and awake, and lowering it when you're asleep or away.

By turning your thermostat back ten degrees to 15 degrees for eight hours a day, you can save five percent to 15 percent a year on your heating bill -- about one percent for each degree.

WHAT TO DO Northeast Utilities provides energy-efficiency tips for each of the four seasons. Here are the recommendations for fall and winter.

Install drapes on all windows, keeping them open during the day to let the sun in, and closed at night to help keep heat inside.

Close a door to an unoccupied room or area that is isolated from the rest of the house. Turn down the thermostat for that room or area, close the vents or turn off the radiator in that area.

Make sure heating vents are not blocked by furniture or drapes.

When not using a fireplace, keep the damper closed when there is no fire to avoid a loss of heat up the chimney. Also check the seal on the damper and make sure it's snug. If you have a simple, open masonry fireplace, consider installing doors or a chimney-top damper.

You'll be turning your lights on sooner now, so make sure all of your lights are energy-efficient. Energy-efficient compact fluorescent bulbs use up to 75 percent less electricity than the incandescent bulbs they replace.

Install your storm windows, and make sure they fit well.

Weather-strip and caulk around doors and windows to limit air leaks. Many caulks will not cure if installed in cold weather, so caulk before the cold weather sets in.

Caulk around your sill plate where your foundation and house meet.

Clean or replace the filter in your forced-air heating system monthly.

November 4, 2001

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