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Ways To Slash Heating Bills

Easy ways to save energy and money!

From The Family Handy Man March 2015

Get an Energy Audit



An energy audit entails a series of tests, including the blower door pressure test (shown), that tell you the efficiency of your heating and cooling system and the overall efficiency of your home. On the basis of the test results, the auditor will recommend low-cost improvements to save energy and larger upgrades that will pay you back within five to seven years. Audits take two to three hours and cost \$250 to \$400, but if you set one up through your utility company, you may be eligible for a rebate.

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A basic part of an energy audit is the blower door test. The auditor closes all the doors and windows and then places a blower fan in a front or back door. This blower door test measures the "tightness," or air infiltration rate. The pressure and flow gauge shows the difference between the inside and the outside airflow so the auditor can calculate the air leakage rate.

Find Air Leaks



Locating air leaks can be tricky. They're often so small as to be hardly noticeable. To find them, follow a trail of smoke. Close all the windows in the house, turn off all the fans and exhaust fans, and shut off the furnace. Light some incense and walk slowly around the outer walls of the house. Anywhere you notice the smoke blowing away from something or being sucked toward something, there's probably an air leak. Now that you've found it, seal it!

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Add Attic Insulation



In most homes, especially in older homes, adding insulation in the attic will cut heat loss. At a minimum, homes should have attic insulation between R-22 and R-49 (6 to 13 in. of loose fill or 7 to 19 in. of fiberglass batts). Check with the local building department to find the recommended level for your area, or visit EnergySavers.gov. Stick your head through the attic access door & measure how much insulation you have. If your insulation is at or below the minimum, adding some WILL lower your heating bills. If you need to add more, go with loose-fill insulation rather than fiberglass batts. Loose fill is usually composed of cellulose or fiberglass and lets you cover joists and get into crevices. Pros charge about 70¢ per sq. ft. to blow in 7 to 8 in. of insulation. You can rent a blower (\$55 a day) and do the job yourself for less than half that cost.

Watch your step so you don't go through the "floor" in the attic.

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Cut Heat Loss With Storm Windows



Storm windows aren't new, but they're definitely improved: New ones open and close and can be left on year-round. Some offer low-emissivity coatings to further cut heat loss. You can use low-e versions even if your windows already have a low-e coating.

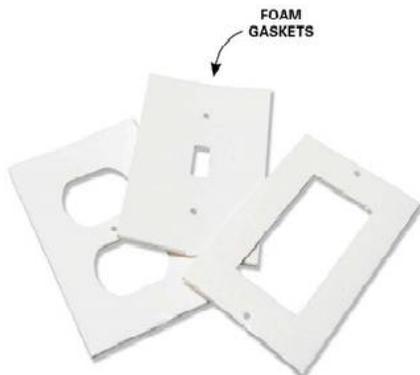
You'll see the biggest payback when they're used over single-pane windows. But don't use storm windows over aluminum windows—heat buildup between the two windows can damage the aluminum, and drilling holes for installation can cause leaks.

You can buy or special-order storm windows at home centers, but you may have trouble finding low-e models. Two sources are ProVia Door and Kaufmann Window & Door. Storm windows start at \$30. Measure the height and width of the window (from the outside) before ordering. Do-it-yourself installation takes about 30 minutes per window.

"Almost half of U.S. homes have single-pane windows. Windows are major sources of heat loss, but low-e storm windows can reduce that heat loss by more than 50 percent." — Department of Energy.

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Fill Gaps Around Electrical Boxes



Electrical outlets and switches on exterior walls can leak a lot of cold outside air into the house. Add up all the outlets in the average house and you can have some serious heat loss—which makes it worth spending 10 minutes per outlet plugging the holes.

Before you start, flip the circuit breaker off and use a noncontact voltage tester to ensure there's no power. Remove the cover plate. If the gap between the electrical box and the drywall is less than 1/4 in., fill it with acrylic latex caulk. If the gap is bigger and lopsided, use foam sealant that's formulated for use around doors and window framing. The minimally expanding foam won't drip down your walls. After the foam dries, cut away any that protrudes, add a foam gasket (to reduce drafts through the box) and replace the cover plate. Do the same around register openings on the inside of exterior walls.

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Fill Gaps Under Sinks



Pull back the escutcheons on plumbing pipes where they enter exterior walls and you'll probably see generous gaps around the pipes. In cold weather, you might also feel the draft coming in. All it takes is a can of expanding foam to seal those leaks.

Shake the can vigorously, then squirt the foam around the pipes inside the wall. Don't completely fill the gap—the foam will expand. If it expands too much and you can't get the escutcheon back on, wait for it to dry, then slice it flush with the wall with a utility knife.

More tips at <http://www.familyhandyman.com/smart-homeowner/energy-saving-tips/slash-heating-bills>