Is heat sneaking out of your home? - USATODAY.com

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By Barbara Hagenbaugh, USA TODAY

MAPLEWOOD, N.J. — With heating costs expected to break records this winter, homeowners are looking for ways to cut costs. But it's often hard to know where to start.

That's where an energy auditor comes in. Auditors are professionals trained to look for where your home is leaking warm air and bringing in cold from the outside. Using high-tech tools, such as infrared cameras, depressurizing fans and smoke blowers, auditors help you visualize where the leaks are and can suggest ways to plug the holes.

TELL US: How have you made your home more energy efficient?

In some cases, the fixes can be done without professional help by making a few inexpensive purchases at a hardware store. Plenty of tips on cutting energy costs are available from various websites (see box). But an energy audit gives the homeowner a personalized "to do" list, says Jeffrey Harris, vice president for programs at the Alliance to Save Energy.

"Every house is different," Harris says. "And not only different because of the structure, but different in the way people use it."

Reducing energy costs is especially important this winter. The U.S. average household winter heating bill is projected to total $986 in the October-March period, up a sharp 10.9% from last winter, the Energy Department says. High energy costs, along with a winter that is expected to be colder than last year, are to blame.

Costs vary widely by location and fuel type. A household in the Northeast using heating oil, for example, is projected to spend $1,879 this winter, vs. $591 for a family in the Western USA using natural gas.

Home energy audits cost an average of $400. But the price varies depending on the size of the house, the kind of heating system used, the location and other factors. Many utilities and state energy assistance offices offer free or reduced-fee audits, for low-income homeowners. With energy prices high, some auditors report having long waiting lists.

By Todd Plitt, USA TODAY

Kyle Haddock, regional manager for Home in Randolph, N.J., says he finds problems in newer homes as well, particularly improperly placed k, which reduces energy efficiency.
Lynn and Bryan Magnus called in an auditor to find ways to reduce heating costs for their 80-year-old, three-bedroom home outside New York City. The two had lived in the two-story plus finished attic and basement, for 1½ years. Their natural gas bills were not too high, but they still were looking for ways to cut back.

A week ago, USA TODAY tagged along with Haddock as he surveyed the home along with the Magnuses for more than three hours. Here’s a sample of what he found, along with suggestions for steps that homeowners can do, if they prefer not to hire an auditor:

• Start at the top.

Haddock began the audit in the attic, which is where he recommends that all homeowners start when they think about cutting energy costs. He suggests thinking of their attic as a hat: Be sure it’s thick enough and well-positioned to prevent heat from escaping. Because heat rises, keeping the attic airtight will make the whole house warmer.

Four-fifths of homes built before 1980 don’t have enough insulation, the Energy Department estimates. In the Magnus home, there was too little insulation in some spots, and in others, there was insulation where it wasn’t needed.

Insulation is measured in something called an R value. The government recommends different R values based on location. Before climbing into the attic to check out your insulation, go to www1.eere.energy.gov/consumer/tips/insulation.html for help in choosing an R value.

• Seal the windows.

Replacing windows can be costly, and it could be years before you see a real improvement in your windows’ efficiency if you do a little sealing.

Testing in the Magnus home showed that air was escaping around windows, with much of it seeping from between the frame and the wall. To stop that, Haddock recommended they caulk around the windows, both in and outside the frame. He recommended acrylic latex caulk, which can be painted.

Door areas can often use some caulking, too. Haddock also recommended that homeowners keep their windows locked. Not only is it safer, but locked windows form a tighter seal to prevent leaks.

• Turn it down.

Saving on energy costs can be as simple as lowering your thermostat. For every 1 degree you lower the heat, you can expect to see about a 1% reduction in your energy bill, Haddock says. He recommends finding your comfort level, then turning down the heat by 5 degrees.

If you suspect your thermostat is older and might not be working well, it could be time to replace it. A programmable thermostat will help make it easier to adjust the temperature. You can direct the thermostat to turn up the heat when your wake up, and reduce it when you’re at work. Programmable thermostats often let you set different programs for different days of the week.

The Magnuses had been using their programmable thermostat, but Haddock recommended that they be more aggressive in lowering the temperature. They were keeping their home at 64 degrees when they were gone to keep it comfortable for their dog, Meadow. But Haddock assured them that Meadow would be fine at a lower temperature and that pets have a knack for finding the warmest spots in the house.

• Don’t overlook the basement.

Warm air escapes homes through the top of the house, while cold air enters at the lowest level, so it’s important to keep basement leaks at a minimum.

That means sealing cracks around windows and making sure that doors to garages and storage areas are tight.

While in the lowest level of the home, it’s also a good idea to add insulation around hot water pipes, so the heat doesn’t escape as the water travels.

• Hold off on the fireplace.

On a cold winter’s day, it may seem comforting to put a few logs on the fire. But using the fireplace may actually increase your heating bill.

Fireplaces bring in air from the surrounding room and heat that air, which then goes up the chimney. That means that you’ve paid to heat air that is going out the roof.

For homeowners who like using their fireplaces, Haddock suggests that they light them when it’s merely cool outside, in the mid- to high-40s, when heating needs aren’t as intense. When it’s really cold, the draft in chimneys is especially strong. Homeowners should also keep fireplace doors and dampers closed when not in use.

• Maximize radiators.

If you have radiators in your home, put something reflective, such as foam board with a reflective backing,
he radiator and the wall, to push the warm air into the center of the room. Otherwise, you're partly just he walls.

also recommends installing adjustable valves for radiators. They make it easier to control the heatduced.

How have you made your home more energy efficient?