

Assess Your Home's Efficiency with an Energy Audit

As winter sets in, you may be wondering how to save money on your energy bill this year. Conducting a do-it-yourself home energy audit is fast, relatively simple way to assess how much energy your home consumes and determine what you can do to make your home more energy efficient.

A home energy audit will show you where your home is losing energy, how efficient your heating and cooling systems are, and ways to conserve electricity. All it takes is a thorough inspection of the areas listed here and keeping a checklist of the problems you found.

Air Leaks. Stopping or minimizing drafts can save 5 to 30 percent of your annual energy costs. Some places to inspect where air commonly seeps from homes include gaps around baseboards, wall and ceiling junctures, electrical outlets, switch plates, window frames, weather stripping, fireplace dampers, attic doors, window-mounted air conditioners and foundation seals.

On your home's exterior, look at the areas where two different building materials meet, such as corners and areas where siding or brick come together with chimneys or the foundation. If you can rattle windows or see daylight around door or window frames, you likely are losing air.

Once you've identified the leaks, seal them with caulk, weather stripping or the same materials as the original seal. Replacing windows with new, high-performance ones will improve your home's energy efficiency and get you a break on your taxes. An inexpensive alternative is to attach plastic sheets around your windows.

Insulation. In older homes especially, the amount of insulation in the ceiling and walls may be insufficient for current standards. See if your attic door is insulated and closes tightly. Openings around pipes, ductwork and chimneys should be sealed. Look for a vapor barrier – tarpaper or a plastic sheet – under the attic insulation. To check your walls, make a small hole in a closet or other out-of-the-way place and probe into the wall with a long stick or screwdriver. They should be completely filled with an insulating material.

Fill the gaps in any openings with expanding foam. Flexible caulk should be used to seal any electrical boxes in the ceiling. If your home lacks a vapor barrier, consider painting interior ceilings with vapor barrier paint. This reduces the amount of water vapor that can pass through the ceiling and reduce your insulation's effectiveness.

Heating and Cooling Equipment. Inspect your heating and cooling equipment. See if ducts and pipes that are located in unheated spaces and your water heater and hot water pipes are insulated. Dirt streaks around your ductwork, especially near the seams, are evidence of leaks.

Have your equipment checked and cleaned by a professional annually. If you have a forced-air furnace, replace your filters as soon as they are dirty. Even if they aren't, replace them every 30 to 60 days. Consider replacing units that are more than 15 years old with a new energy-efficient one.

Lighting. Look at bulbs in your home and determine if a lower-watt bulb would work just as well for your needs. If you have an area where lights are on for extended periods of time, a compact fluorescent lamp (CFL) can save up to 75 percent of the lighting energy of an incandescent bulb.

A home audit is a great way to find out your home's energy deficiencies and make simple improvements that will save you time and money in the long run.