

LIVING GREEN NEWS

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How much energy is your home consuming?

A home energy audit is the first step to assess how much energy your home consumes and to evaluate what measures you can take to make your home more energy efficient. An audit will show problems that may, when corrected, save significant amounts of money over time. It can pinpoint where your house is losing energy. They can also determine the efficiency of the home's heating and cooling systems. An audit might even show you ways to conserve hot water and electricity.

Who can do a home audit and how is it done?

1. You can perform a simple energy audit yourself
or
2. You can have a professional energy auditor carry out a more thorough audit

First, let's look at a Do-It-Yourself Home Energy Audit:

With a simple but thorough walk-through, you can spot many problems in any type of house. When auditing your home, keep a checklist of areas you have inspected and problems you found. This list will help you prioritize your energy efficiency upgrades.

First, make a list of obvious air leaks (drafts). According to the U.S. Department of Energy, the potential energy savings from reducing drafts in a home may range from 5% to 30% per year, and the home is generally much more comfortable afterward.

Check for indoor air leaks, such as gaps along the baseboard or edge of the flooring and at junctures of the walls and ceiling. Check to see if air can flow through these places by closing all exterior doors, windows, and fireplace flues and turn on all exhaust fans (usually found in the kitchen and bathrooms). Then use incense sticks or your damp hand. If using incense sticks, moving air will cause the smoke to waver and if you use your damp hand, any drafts will feel cool to your hand. Here are some common places to check:

- Electrical outlets
- Switch plates
- Window frames
- Baseboards
- Weather stripping around doors
- Fireplace dampers
- Attic hatches
- Wall- or window-mounted air conditioners

Also look for gaps around pipes and wires, electrical outlets, foundation seals, and mail slots. Check to see if the caulking and weather stripping are applied properly, leaving no gaps or cracks, and are in good condition.

Inspect windows and doors for air leaks. See if you can rattle them, since movement means possible air leaks. If you can see daylight around a door or window frame, then the door or window leaks. Check the storm windows to see if they fit and are not broken.



One area many home owners over look is the amount of insulation you currently have in your walls, ceiling and crawl space or basement. When your house was built, the builder likely installed the amount of insulation recommended at that time. Given today's energy prices (and future prices that will probably be higher), the level of insulation might be inadequate, especially if you have an older home. Unless you are familiar with how to tell how much you have or today's recommendations, this might be best left up to a professional.

On the outside of your house, inspect all areas where two different building materials meet, including:

- All exterior corners.
- Where siding and chimneys meet and areas where the foundation and the bottom of exterior brick or siding meet. See if there are cracks and holes in the mortar, foundation, and siding.
- Look for holes or penetrations for faucets, pipes, electric outlets, and wiring
- Check the exterior caulking around doors and windows
- See whether exterior storm doors and primary doors seal tightly

If all of this seems overwhelming or maybe you don't feel qualified or have the time to perform an energy audit, perhaps you should bring in a professional energy auditor.

Now let's look at a Professional Energy Audit:

These audits generally go into great detail. The energy auditor should do a room-by-room examination of the residence, as well as a thorough examination of past utility bills. Auditors use this information to establish what to look for during the audit. The auditor first examines the outside of the home to determine the size of the house and its features (i.e., wall area, number and size of windows).

Facts about April:

- ✓ Diamond is the birthstone for April
- ✓ William Shakespeare, the playwright, was born on April 23, 1564
- ✓ The Revolutionary War in America began on April 19, 1775, when British soldiers and American revolutionaries clashed in Massachusetts
- ✓ First federal U.S. mint established, April 2, 1792
- ✓ Congress adopted the flag with 13 stripes and with 1 star for each state, 1818.
- ✓ Henry Aaron broke Babe Ruth's career major-league home run record, April 8, 1974
- ✓ The Vietnam War ended on April 30, 1975, when South Vietnam surrendered

The auditor then will analyze the residents' behavior:

- Is anyone home during working hours?
- What is the average thermostat setting for summer and winter?
- How many people live here?
- Is every room in use?

Your answers may help uncover some simple ways to reduce your household's energy consumption. Walk through your home with the auditors as they work, and ask questions. They may use equipment to detect sources of energy loss, such as blower doors, infrared cameras, furnace efficiency meters, and surface thermometers.

There are several places where you can locate professional energy auditing services. Your state or local government energy office may help you identify a local company or organization that performs audits. Your electric or gas utility may conduct residential energy audits or recommend local auditors. Also check your telephone directory under headings beginning with the word "Energy" for companies that perform residential energy audits.

Once you know where the energy issues are, it is time to address them and make your home more energy efficient. The next issue of the LGN will cover some of the easier fixes that the average home owner can do without calling in a contractor.

April Quotation:

April cold with dropping rain
Willows and lilacs brings again,
The whistle of returning birds
And trumpet-losing of the herds.

by Ralph Waldo Emerson