



Is a Home Energy Audit Right for You?

By Tom Lienhard, PE

Your home is no different than any other complex system and sometimes it can benefit from a professional inspection, which could save you energy dollars and benefit your health. You may not need a professional inspection, but if you're considering one, here are a few things to think about.

Before your energy audit begins, you'll be asked questions such as how many people live in the home, the temperature you set your thermostat, if someone is home all day and if you have pets in the home. The answers to these questions will give the energy auditor an idea of what to look for in your home.

You'll also be asked other questions that you may not think about in a home energy audit, like does anyone in the home suffer from headaches, muscle aches, breathing problems, or unexplained weakness. These symptoms could indicate "sick-building" syndrome, which can be caused by inadequate ventilation and chemical contaminants. The auditor will also inquire about water damage, asbestos, signs of rodents or vermiculite in your home.

Next will come questions that may indicate problems needing repair. Do you run out of hot water or have uncomfortable areas in your home where it's too cold to sit in the winter or too hot in the summer? Do you get big icicles on your eaves in the winter?

The outside of your home will be checked for breaks in the siding, moisture problems, improper venting, or holes in your home. The auditor will inspect the inside of the home for insulation levels number of lighting fixtures and wattages, and look at all equipment that uses energy.

Tests that only a professional can do are next. Combustion appliance zone testing may be performed to see if natural gas or propane is present. The auditor will also test to see if combustion byproducts like carbon monoxide are detected around your furnace or water heater.

A blower door test may be performed to measure home air leakage by creating a vacuum on your home with a large fan placed on your front door. A pressure pan



test may be performed during the blower door test to detect leakage in your ductwork.

Inspection costs typically run between \$350 and \$800. Once repairs are made the monetary payback is usually two or three years. The health payback is "priceless."

It's important to note that your in-home energy audit will only be as valuable as the action steps you take to make the energy efficiency improvements. To make your efficiency improvements, ask for a copy of the report and a physical walk through on the audit recommendations at the completion.

A professional auditor will be certified - be sure to ask for the certification prior to the auditor doing the work. Presently there are three common certifications, BPI Building Analysts, RESNET-certified auditors, and a Certified Energy Auditor (CEA). Other certifications exist, but to find a qualified auditor, look in the yellow pages under Energy Conservation Management Consultants.

Equipment Rebates and Incentives

Some electric and natural gas utilities offer rebates and incentives for customers making energy efficiency upgrades to their home or business. It could pay to find out what your energy provider offers.

Tax Credits

Also, find out how the new stimulus packet has affected Federal Tax Credits for Energy Efficiency at energystar.gov

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