

What You Can Learn From a Home Energy Audit



A blower door test during a home energy audit can help identify sources of air leaks.

Photo by Tõnu Mauring



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Q: I keep hearing about home energy audits. How do they work? Will they save me money?

A: You are smart to be thinking about a home energy audit. Spending a few hundred dollars now can save you thousands of dollars over time.

A home energy audit is a detailed assessment of your home that can give you a roadmap for future energy-related investments. An energy audit can meet different needs:

- What efficiency investments will be most effective to lower your energy bills?
- Are areas of your home sometimes too hot or too cold? An energy audit can identify problem areas and solutions.
- Are you considering a new furnace, air conditioner or rooftop solar system? An energy audit will help you “right-size” these systems and identify complementary measures to help these large investments work most efficiently.
- Are you considering selling your home? An energy audit documents home efficiency to help improve its resale value.

Online audit tools give you a basic understanding of how your home compares to similar ones. However, qualified and professional home energy auditors can use their experience and high-tech tools to provide a thorough report of your home’s challenges and opportunities.

A professional energy audit can range from a quick, visual walk-through of the home, to a more comprehensive—but more expensive—evaluation.

Energy audits require an examination of the building envelope (attic, floor and exterior walls) and the energy systems in the home, such as the water heater, air conditioner and furnace.

Follow the auditor during the inspection, and ask questions so you can understand where the problems are, what you can address yourself and where you may need professional help.

The auditor may analyze your recent energy bills to determine what your energy is used for and if use has recently changed.

Finally, the auditor will ask about the energy use behaviors of those who live in the home. For example, is someone home all day, or does everyone leave for work and school?

An auditor may do some or all of the following tests:

- **Blower door test.** Windows are often the suspected cause for air leaks in the home. This test measures how airtight your home is and identifies where the air leaks are.
- **Duct blaster.** Ducts move the warm and cool air around your home. Duct testing determines if your ducts are leaking.
- **Thermographic imaging.** This is one way to identify where more insulation is needed. Infrared images show cold spots in a home’s envelope.
- **Health and safety testing.** Energy auditors are trained to spot safety problems, such as a missing smoke detector or an appliance that could cause carbon monoxide issues. Some auditors can test your home for radon.

Following the assessment of your home, the auditor will analyze the information and make recommendations on what systems could be upgraded or behavior changes you can make to reduce energy use and improve comfort. Take action based on your auditor’s recommendations to lower your energy bill 5 to 30 percent, and perhaps even more.

Your electric utility may be able to help you get started with your energy audit. Some utilities even offer discounted audits or a list of qualified energy auditors in the area.

Be sure whomever you hire is willing to answer questions, and plan to be home during the audit—it is a great opportunity to learn what makes your home tick and how you can make it even better. ■