

## A checkup for your home

### Upgrading your home's efficiency is a boon to the environment, health and safety, and your wallet

By Abbie Beane / For The Bulletin

Published: June 30, 2009 4:00AM PST

Much like the human body, the home is a sum of its parts, capable of functioning as one system, communicating effectively and running efficiently until longtime use wears down certain components.

And much like the body, the home can benefit from a checkup.

Preventing or remedying energy inefficiencies, given time, can be beneficial for the environment, for human health and safety, and for your wallet.

"Right now is a great time to make a home more efficient and comfortable because it's so popular, and there's so much money directed to it from government entities," says Robert Hamerly, general manager of Green Savers, a local contractor specializing in home energy-efficiency tests.

#### *Ins and outs of efficiency*

While many homeowners might be aware of the benefits of an efficient home, fewer might know how to get there. Many area contractors are certified and equipped to conduct testing and repairs.

The Energy Trust of Oregon has a large hand in training those contractors to perform comprehensive home assessments. The Energy Trust, an independent, nonprofit organization devoted to helping Oregonians use energy more efficiently, helps prepare contractors to take their field tests, which are a ticket to certification in specific efficiency disciplines.

The trust also maintains a list of contractors affiliated with its efficiency programs (see [www.energytrust.org](http://www.energytrust.org)).



Dean Guernsey / The Bulletin

Hamerly performs a home energy audit using a blower door to pressurize the house and test for air leaks. A home energy audit and subsequent repairs can result in tax breaks or incentives from the Oregon Energy Trust.

Different homes will require different tests and repairs to maintain peak efficiency, depending on factors such as age, problem areas and existing heating systems.

A home can be tested for its health and safety: levels of carbon monoxide, moisture, asbestos, lead and various chemicals. Homeowners also generally test their homes for leaky ducts or air tightness, which can not only save on energy bills, but also regulate home temperature.

“Even homes built in the past 10 years can be fairly leaky,” notes Austin Willis, president of Willis Builders in Bend, specializing in home performance.

A contractor might also look at the insulation of the home, which, if worn, could allow heat and cold to pass through very quickly. Windows can also be an area of concern, since they can lose heat in the winter and absorb it in the summer. Upgrading heating systems themselves is also common, as efficiency can be improved up to 30 percent or more with improved technologies.

“Updating your water heater is also an option,” says Hamerly. “A big part of the utility bill goes to heating your water.”

#### *Reasons to reassess*

Megan Clark of the Energy Trust spares no energy in listing the reasons to test your home’s efficiency: decreased reliance on oil, coal-burning power plants and energy in general, as well as savings in electricity and carbon emissions.

“It’s direct,” Clark says. “Old furnaces might literally perform at 60 percent efficiency, compared to 95 percent for efficient furnaces. If you have an inefficient furnace, think of it as putting in \$100 then losing \$40 off the top.”

Clark also mentions the benefit of keeping a house sealed from outdoor chills or the blistering heat of summer. She adds that many forced-air systems with leaky ducts can lose 30 percent of the forced heat before it reaches the house.

“The house is a system, and you want to make sure all the parts work within themselves and in conjunction with each other,” Clark says.



Dean Guernsey / The Bulletin

Part of Robert Hamerly’s energy audit uses a duct blaster to pressurize and test the system for leaks.



Hamerly points out the importance of testing a home for air quality as well as moisture issues — mold being another contributor to poor air quality.

“The majority of homes are underperforming compared to the level they could be at, and for a minimal investment, a homeowner can have a house that can perform substantially better,” Hamerly observes. “Most people call us to improve comfort or reduce their utility bills.”

#### *Financial incentives*

The list of suggested home- efficiency improvements and their associated costs can be daunting, but the initial efficiency testing will help guide homeowners.

Most tests run between \$200 and \$500, while contractor introductory rates and incentives from the Energy Trust are sometimes available.

“Part of the service is to help people map out a plan (for the desired repairs) and a cost-benefit analysis of the work you will do,” notes Willis.

In Oregon, financial incentives and tax breaks typically come from three sources: the federal government, the state government through the Department of Energy and the Energy Trust of Oregon (see the Energy Trust Web site, [www.energytrust.org](http://www.energytrust.org), for details).

Some contractors will also process all incentive paperwork for their customers as the contractors know where to look and how to maximize benefits.

“We’re very lucky here in Oregon in terms of (the state) kicking back money for upgrades,” Hamerly says. “About 50 to 70 percent might come back. Most people don’t know how much money is out there.”

The even better news is that once testing and repairs are completed, as well as a follow-up test, little to no future testing should be needed. Further testing might be justified only if there are drastic changes in the home and/or in associated codes.

“The important thing is to get tested and put together a long-term (financial and repair) plan,” Hamerly suggests.

“It’s important just to get an idea of what your house needs and the best way to move forward.”

Abbie Beane can be reached at [abbiebeane@gmail.com](mailto:abbiebeane@gmail.com).

Dean Guernsey / The Bulletin

Robert Hamerly, general manager of Green Savers, prepares to enter a crawl space as he performs a home energy audit.



Dean Guernsey / The Bulletin

Robert Hamerly uses an infrared camera to detect a home’s insulation voids and air leaks.

[www.bendbulletin.com](http://www.bendbulletin.com)