

Birdi All-Purpose Home Inspection

A Home Performance with Energy Star audit can help you make your home more energy efficient while improving your indoor air quality.

Comprehensive Energy Audit Will Hunt Down Biggest Gains

Stunned. That is how Carolyn Beattie describes her reaction to how much air leakage was found in her 1,450-square-foot house during a Home Performance with Energy Star audit done by GreenHomes America at the end of last year.

“It was really eye-opening to me,” said Beattie, 59, a retired phone company worker who along with her husband Glen, 60, a school teacher, have lived in their 1954 ranch style San Fernando Valley, California, home for 35 years. “Once we completed the auditor’s recommendations, it sure made a huge difference.”

The Beatties are one of a growing number of homeowners taking advantage of generous local, state, and national energy-efficiency tax rebates and an increasing amount of companies performing Home Performance with Energy Star

audits and retrofits. These homeowners are making long-neglected and much-needed improvements to their homes that make them more comfortable and healthier to live in year-round. They’re saving money on utility bills and reducing energy usage, thereby decreasing greenhouse gas emissions.

“I’m shocked at the number of homes that have little or no insulation in their attic and no insulation in their walls,” said GreenHomes America senior VP of marketing Mike Rogers, who ten years ago developed the Home Performance with Energy Star audit program while working at the US Environmental Protection Agency.

Companies like GreenHomes America are trying to change that—home by home.

The Beattie’s Home Performance with

Energy Star audit included a blower door test to find and measure air leakage, an infrared scan to identify insulation gaps, and inspections of air insulation and sealing levels in the attic and roof, combustion equipment (furnaces, boilers, water heaters and stove), duct systems, mold and moisture levels, exhaust fans, and more.

A Home Performance with Energy Star audit takes it even a step further by checking the indoor air quality. Chandler von Schrader, a Home Performance with Energy Star Manager at the US EPA, describes it as a “comprehensive home assessment,” which reviews appliance and gas line safety, checks for proper ventilation, interviews homeowners for indoor air-quality issues, searches for mold, and checks CO₂ and smoke alarms.

In the Beatties’ case, the biggest problem was a lack of insulation in the attic.

“We brought their attic up to actually higher than existing code,” said Rogers, who explained that in California especially it is common to see homes lacking adequate attic insulation.

After the Beatties implemented the fixes recommended by their auditor, the first thing they noticed was how quiet their house had become.


“We were utterly amazed at all the noise that was cut out by putting in the new windows and the insulation,” said Beattie. “The second thing we noticed was that it was warm in our house in December. In the past, we’d run the heat in the morning and the evenings, and we no longer had to do that. It was rare when our heater came on. And then in the summer, we didn’t have to run our air conditioner as much as we had before.”

GreenHomes helped the Beatties take advantage of various incentives. They utilized a federal tax credit of \$1,500 that covered 25 percent of the total price for all the services. Only the insulation was eligible for the credit, but the cost of the insulation allowed them to max out the credit anyway. The Beatties also qualified for a Southern California Gas company rebate of almost \$413 for the attic insulation.

Beattie says the Department of Water and Power raised its rates, so their bills


after the retrofits are about the same. So instead she looks at their decreased energy usage as the measure of success—4,621 kilowatt hours so far this year versus 5,008 kWh the first eight months of last year, for a savings of about eight percent; and 115 gas therms this year as opposed to 161 therms at this point last year for a savings of nearly 30 percent. Unlike her neighbors, she has avoided the extra expense of meeting higher monthly utility bills.

But why choose an Energy Star audit over the free audits offered by many local utilities?

“It’s like calling a tricycle and a car the same thing. If you want a car, the tricycle isn’t going to do it. Not all audits are created equally,” said Peter Van Buren, president of Maryland-based TerraLogos Energy Group .

“To do a comprehensive audit, it takes a certified analyst at least three hours and they need to have upwards of \$10,000 worth of equipment in the house coming to bear on the situation. So it’s a pretty complicated process and requires pretty high technical skills. You don’t get that for free,” said Van Buren.

The Home Performance audit averages between \$400 to \$500 minus any subsidies or tax incentives.

Beattie said she would wholeheartedly recommend a Home Performance with Energy Star audit to anyone: “It was rewarding to know we’d done something that was good for the environment, good for us, and worked out well for everyone involved.” 

—Joshua Marks

This article first appeared in the GREEN AMERICAN magazine: 800/58-GREEN, GreenAmerica.org. Green America is a national nonprofit whose mission is to harness economic power for a more socially just and environmentally sustainable society.

HOW TO FIND AN AUDITOR

While you can get a free energy audit from your utility, a more comprehensive Home Performance with Energy Star audit will likely lead to bigger energy savings. Find a Home Performance with Energy Star auditor at EnergyStar.gov > Home Performance with Energy Star > Locations. Find Green America Green Business Network™ members offering audits in the “Energy: Products/Services” category of our *National Green Pages*™ (GreenPages.org).