

Sleuths help save Energy

Home audits in high
demand as fuel costs rise

By Terri Hallenbeck
Free Press Staff Writer

SHELBURNE - Scott Gardner pulls out a pencil-like stick that creates theatrical smoke and holds it up to a light switch in Jim White and Joy Congdon's house. The smoke swirls, and immediately Gardner knows the attic needs more insulation.

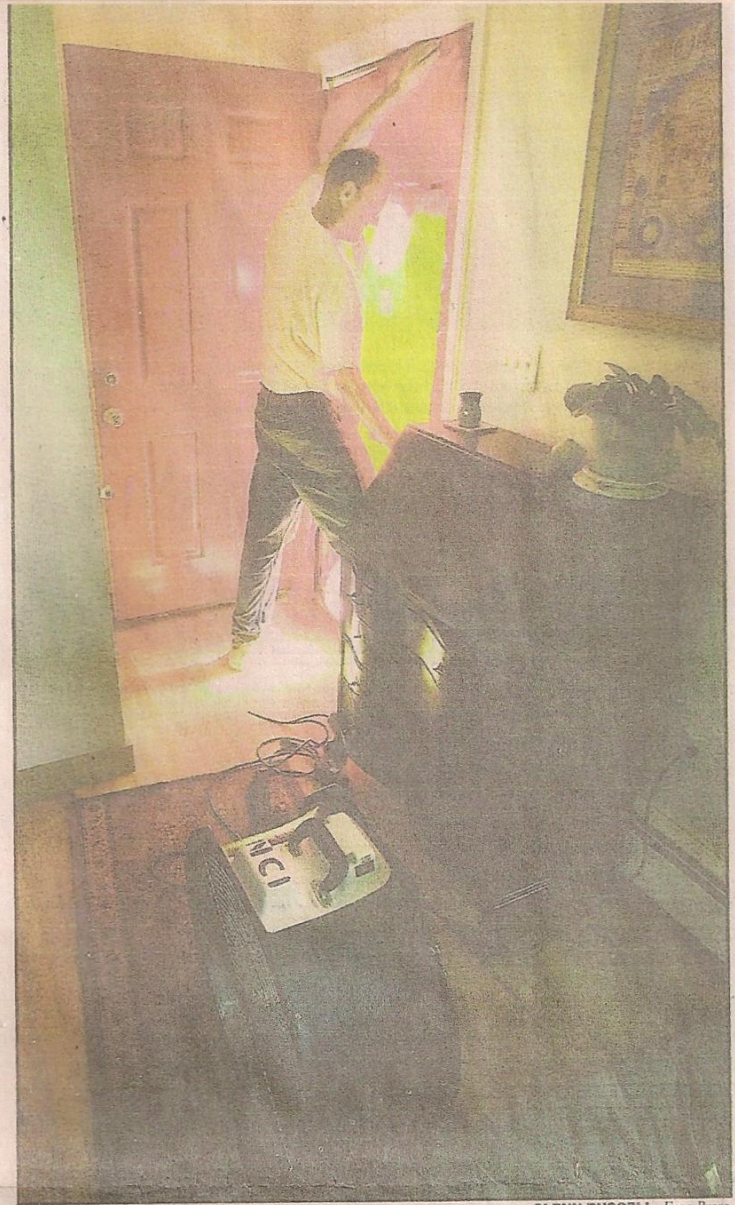
"It tells you the attic's not properly sealed, which is fairly typical," Gardner says. "Your attic is going to want to get re-insulated. Theatrical smoke was one of the tools Gardner used during a two-hour audit to test the energy efficiency of the couple's 1960s-era ranch house. The goal: to help them use less heating oil.

With the price of heating oil sizzling at \$4.50 a gallon - and fears that it could be higher by winter - plenty of Vermonters are joining White and Congdon in the search for ways to use less. The focus on heating costs doesn't usually come before summer even has a chance to settle in, but this year is different.

"More and more people have been calling," Gardner said. "The price of oil really has kicked up interest in audits." "You can already hear panic from people," said Elizabeth Chant, weatherization director at the Champlain Valley Office for Economic Opportunity, where requests for free weatherization help from qualifying low-income residents are running 33 percent higher than this time last year. "This is normally a slow time of year."

At the Central Vermont Community Action Council, commercial audits for those who don't qualify for the low-income weatherization program are booked into September, said Paul Zabriskie, program director. Gardner, who's been in the construction industry for 27 years and was trained to conduct audits by the state's Efficiency Vermont program, said too few contractors are trained to do audits or insulate homes.

The scramble for help has caught the attention of state officials, as Gov. Jim Douglas recently announced plans to train more people to
See ENERGY, 4A
conduct energy audits and offer no- and low-income loans to middle income Vermonters to pay for



GLENN RUSSELL, Free Press

Contractor Scott Gardner does an energy audit of Jim White and Joy Congdon's home in Shelburne on Tuesday. Gardner seals the house before doing a pressure test to measure how tight the structure is.

Sources for saving energy

- **EFFICIENCYVERMONT:** Provides information on ways to save energy and a list of those who conduct certified home energy audits. Visit www.encyvermont.com and click on Home Performance with Energy Star, or call toll-free 888-921-5990.
- **VERMONTGAS SYSTEMS:** The natural gas provider offers free energy

audits to customers who qualify based on gas use. Visit www.vermontgas.com and click on efficiency programs, or call 863-4511, ext. 321.

- **LOW-INCOMETHEATHERIZATION:** Low-income Vermonters may receive free assistance in making their homes more energy efficient. Visit www.dcf.state.vt.us/oeo/weatherization, or call (800) 545-1084 in Chittenden County.

determine where the house leaked heat and whether the furnace was operating efficiently.

Surveying the yellow vinyl sided house inside and out, Gardner noted that the cold-water pipes on the basement furnace were not insulated and were radiating heat an easy thing to fix that would be free if a certified contractor did other recommended work. Gardner warned against using duct tape, saying it doesn't hold up.

The insulation around the home's foundation was especially well done, Gardner said, something he doesn't typically find. The insulation beneath the vinyl siding, however, was not as thick as it should be, he said. The solution: Take the siding off and attach new layers of rigid foam. That sounded daunting to White, and Gardner warned it would be expensive.

When Gardner returned to his office and ran the software that helps him determine the cost benefit of each job, he estimated insulating under the siding would cost \$10,400 for a 13 percent savings on heat. With that price tag, the measure didn't make Gardner's list of priority items.

Other projects Gardner recommended didn't cost as much. Gardner closed all the windows and doors in the house and fit a device on the front door that allows him to reduce the air pressure in the home. That means air will flow in from any gaps in the house, telling Gardner where the leaks are.

He pointed out window casings that could use caulking on the outside. That work would cost \$500 and save 4 percent on heat, Gardner estimated. He emphasized that the heat savings are intentionally conservative.

Most of the evidence of heat loss pointed to the attic. When Gardner climbed a ladder to look up there, he confirmed that the insulation didn't extend all the way to the eaves. He recommended

installing 2 inches of insulation in the eaves and adding 8 inches of blown cellulose insulation to the existing layer of fiberglass elsewhere. The cost: \$4,315. It would be less if White donned a Tyvek suit and sprayed the insulation himself, which he said he will probably do. The projected savings on heat: 12 percent.

Gardner also recommended more insulation on the concrete basement walls and in the garage. Adding insulation in the garage should be no problem, White said, but he worried that putting the recommended rigid foam insulation on a visible basement wall would be unattractive.

All told, White's house is in unusually good shape, Gardner said, adding that he typically has more extensive recommendations to offer. At a recent audit on a farm house in New Haven, for instance, he found gaps in the insulation and, recommended reinsulating the house, along with weather-stripping and sealing.

White had an audit done on his previous home in Burlington's Old North End that pointed to similarly extensive needs, he said. "We got amazing payback almost immediately," he said.

He's not surprised the recommendations for his Shelburne home were more modest. The audit was still worthwhile, he said. Now they know more about their house, and if they sell it, they'll have paperwork to prove its efficiency. White has a sense that issue will be on the minds of future buyers.

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