

'Cash For Caulkers' Seals Savings For Homeowners

by CHRISTOPHER JOYCE



John Poole/NPR

A worker with Home Energy Loss Professionals, a Maryland company, retrofits the attic of a home.

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This year was supposed to be the year when the U.S. government redesigned the energy economy and took a bite out of global warming. But Congress had no appetite for complicated legislation that might raise energy prices.

So now comes "cash for caulkers." Call it "energy reform lite" — part of a string of more modest measures designed to reduce our hunger for energy without a top-down overhaul of energy use in the country.

Known officially as [Homestar](#), cash for caulkers would put up to \$6 billion of federal money into the hands of homeowners and contractors who make homes more energy-efficient. That's if Congress decides to pass it.

To see just what Homestar would subsidize, I visited a crew from Wellhome, an energy retrofit company.

"So what we have here is a blower door," explains Glenn Dickey as he secures a canvas flap over the front door entrance to a comfortable house in the Washington, D.C., suburbs. There's a big fan built into the flap, connected to a power socket. "And what we are going to do is turn the fan on, draw the air through the house, and this will give us an opportunity to find the leaks."

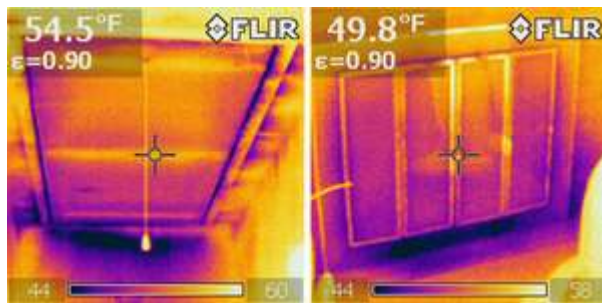
**We do a better job
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- Jay Murdoch

Dickey trains retrofit workers to get certified by the [Building Performance Institute](#). Today he's on the hunt for an insidious enemy — air leaks. When he turns on the fan, it sucks air out of the house and lowers the interior air pressure — not enough to suffocate us, he promises, but enough so that hot air from the outside will leak into the cooler house through any cracks or holes.

Dickey's partner here is Rush Fleshman, a Wellhome expert. Fleshman wanders through the house using an infrared camera to find those streams of air. They will lead back to cracks and holes in walls and

windows. He finds plenty.



Courtesy of Glenn Dickey

In the wintertime, cold air can enter homes from pull-down attic stairs (left) and fireplaces with glass doors (right). The dark colors in these infrared images show poorly insulated surfaces where cooler air is entering the home.

"What we are seeing here is warm air infiltration washing down these walls here," he says as he points his camera at an interior wall. "That would be behind the drywall."

The screen on the hand-held camera shows a pinkish blob slithering down the wall. It's coming from the attic. Any air that's a few degrees warmer or colder than the indoor air will show up on the infrared camera, even *behind* walls.

In this case, the insulation could have pulled away from the inside of the wall, or there might be an

opening somewhere between the first floor and the attic.

Tough Love For Homeowners

Meanwhile, around the kitchen table, Wellhome auditor Michael Hogan throws a barrage of questions at the homeowners, Jay and Dorothy Murdoch. Jay is pretty savvy about construction — a copy of *Family Handyman* lies on the table — and Dorothy is an architect. But they're in for a grilling.

"Does your house have any cold or hot areas?" Hogan asks. Rapid fire, he runs down a hefty list. "Are there any drafty areas in your home? Do you ever close off any rooms to prevent from heating them? Do you have any moisture problems anywhere in the home? Do you have any musty smells in your home?"

Sometimes the questions hit a sore spot. "When was the last time you had your furnace cleaned or serviced?" Hogan asks.

"Ooooh," sighs Dorothy Murdoch. Her husband grimaces.

"It hasn't been serviced since it was installed," he confesses — three years ago. "We do a better job servicing our car than our house."

"Yeah, we're bad," Dorothy admits.

This is more than just "tough love" for homeowners — it's the Gold Star treatment. That's a top-of-the-line energy efficiency overhaul that evolved after some states started rebate programs for residential energy retrofits.

Homeowner Jay Murdoch is actually in this business — he works for Wellhome. He volunteered for this workover after he reached the limit of his own handyman skills.

Some fixes only require a change of behavior. The house has five computers, for example, and sometimes they're all drawing electricity at once. Hogan also spots some things that aren't so obvious.

"A cell phone charger," he says. "You know, people usually leave them plugged into the wall. That has a draw on it."

An Airy Puzzle

Dickey heads up a staircase into the attic. In a well-insulated home, attics are supposed to be sealed off from the rest of the house. Dickey pulls back the insulation on an interior wall and finds a long open seam that leads down into the house — a conduit for attic air to dribble back down.

A two-by-four should be enough to seal that off — no big deal. But downstairs, Hogan and the infrared camera have found something mysterious.

"Right at the moment, I'm stumped," admits Hogan. "We've got this air circulating down around the paneling in the little den space here, and the air is cool, which would indicate that it's not coming from the attic." Maybe it's coming up from the crawl space under the house. Or maybe somewhere else. It will take some sleuthing to diagnose it, and that's what Hogan likes — connecting parts of the house like a puzzle.

That's not how most people in the construction business think, says Larry Zarker. He runs the Building Performance Institute, which trains and certifies retrofit workers like Hogan. "You can't get comfort, you can't get energy efficiency, without treating the house as a system" of interconnected parts, he says. "You can do piecemeal projects, but you can't get there" just one room or appliance at a time.

After a couple of hours of home "therapy," the homeowners are contemplating several thousand dollars' worth of work.

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"Our house is a sieve," says Dorothy Murdoch. "But it's good to know that," her husband adds. "We're waiting to see what their action plan is going to be." Comfort and savings are his priority; she ranks "going green" higher.

Subsidies For Energy Retrofits

The Murdochs are willing to pay for an overhaul because it will lower their bills. But if Homestar happens, the federal government could subsidize the work with as much as \$8,000 for a single home.

It would also subsidize a less rigorous and less expensive overhaul called Silver Star.

Some states, like New York, already pay homeowners for retrofits. So did President Obama's stimulus plan last year. But Jeff Genzer of the National Association of State Energy Officials says the stimulus money was mostly for low-income families. Homestar is for all homeowners.

"And it's really targeted to getting the money in the hands of underemployed building contractors," Genzer says. Indeed, Homestar advocates claim that the \$6 billion could create 160,000 new jobs in the flagging building sector.

Genzer adds that small-scale-efficiency programs are cheaper than building new nuclear plants or big wind farms. And homes are a fat target for savings — buildings use 40 percent of the country's energy. But caulk and insulation aren't very sexy either.

"Is it easier for a politician to cut a ribbon in front of a nuclear power plant than it is in front of a house that's been weatherized?" he asks. "Well, maybe."

Nonetheless, the House of Representatives has passed a Homestar bill, and it's now being considered in the Senate.

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