

Efficiency pays — eventually Grants are hard to get and it can take years to recover cost of improvements

Feb. 9, 2006. 01:00 AM

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SPECIAL TO THE STAR

These days you can add something else to those other inevitable standards of death and taxes: Higher home heating costs.

So, anytime you get a chance to get some of those taxes back and save energy costs on your home, it's worth a look.

The federal government is offering up to \$3,348 in grants to owners who improve their home's energy efficiency and help reduce greenhouse gasses as defined by the Kyoto Accord. It's all part of the EnerGuide program run by Natural Resources Canada.

But getting your hands on that cash isn't easy. In fact, for the 25,600 Canadians who have participated in the two-year-old program, the grants have so far been averaging \$750 — well short of the maximum. The 8,300 Ontarians who participated received on average, \$650 each.

The complex process starts with an in-home energy assessment from one of 30 government-picked contractors across Canada, including Yuri Olhovsky of Residential Efficiency Training Resources Ontario (RETRO), who spends about two hours looking at everything from furnace to the attic.

The final part of his assessment is to perform a "blower test," which involves literally putting a big fan blower over one of the doors and "pressurizing" the house to identify leaks.

The test costs \$150 plus GST and provides homeowners with a written report based on a software program's calculation. Should the homeowner decide to upgrade based on the recommendations, a second test is performed free of charge to determine the level of grant based on energy efficiency improvements.

"You can never tell just looking at the house what the efficiency is," says Olhovsky, who is also a home inspector when not performing the assessments. "You have to input all the data and let the software give the answer."

A couple of weeks later the end result is a detailed report which scores the home's efficiency on a scale of 100, zero being a house with no insulation and high energy costs and 100 being the equivalent of a hermetically sealed box, well insulated, airtight but ventilated and requiring no purchased energy to heat. (Windows, apparently, are a necessarily evil in energy efficient homes. We like the light and view they afford but they allow heat to escape in winter and suck in solar heat during the summer.)

My south Scarborough three-storey, detached home — built in 1939 and added to in 1983 — scored 49 which puts it just in the lowest percentile of efficiency. The report also suggests that by making the improvements recommended, the score could hit a target of 69.

And if the second test confirmed the upgrades raised the score to that target I would be eligible for a grant of \$1,050. If I really went hog wild and raised my score to a maximum

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of 85 (scoring 100 isn't even considered on the chart) the maximum grant I could get is \$2,063.

At issue, noted Olhovsky, is not just the poorly insulated basement, but the wooden sash windows in the older part of the house, the 20-year-old furnace and rental water tank, which together send half my gas heating energy up the flue as waste.

Based on the heat loss calculation, the report also suggested the furnace should be a little smaller than the 85,000 BTU unit I have now.

While the 1983 addition is well sealed with six-inch walls and R20 insulation, I should consider insulating the old part of the house's walls by injecting isocyanurate plastic foam behind the lath and plaster walls, Olhovsky said.

But here's the rub: To get the grant I'd have to invest around \$6,000 in new windows, about \$3,500 for a high-efficiency furnace, \$2,500 for a high-efficiency tankless water heater and \$5,000 for basement renovations to insulate properly. To be fair, the grant money isn't the only payback. The assessment also calculated I could save about \$1,400 a year in natural gas costs based on a more efficient furnace and better insulated home. Surprisingly, though, my electricity costs wouldn't change that much, down only \$20 on the year, the report projected. That's because of two things: One, a better-insulated home, more efficient furnace and better windows won't really change my hydro demands. Better I should crack the whip on my teenagers who leave a trail of lights blazing and blaring TVs in empty rooms, and install energy efficient bulbs.

And two, the anomaly that the EnerGuide program does not include an assessment or calculation around air conditioning costs because cooling is seen to be "unnecessarily adding to greenhouse gases."

Given the scorching summer we had in the GTA this year, it's a strange position to take. But using the pile of pamphlets and documents which came with the assessment, I was able to figure out a way to cut my electricity costs by installing an EnerStar rated energy efficient air conditioner, washer, dryer, dishwasher and fridge. The \$5,000 investment would probably generate about \$500 a year in savings. (EnerStar appliances are so designated because they are energy efficient — they have a sticker on them attesting to their status.)

All together I'd have to spend upwards of \$22,000 from which I'd hopefully get about \$1,050 or more back from the feds and save about \$1,900 annually in energy costs, making the upgrades pay for themselves after about 13 years, still not a bad investment considering the added resale value the house itself would gain. And some of those items are going to have to be replaced soon anyway.

While a new kitchen, hardwood flooring and perhaps a bathroom upgrade might sound sexier, none of those pay for themselves. It's a tough call.

Homeowners have 18 months after their first assessment to make the upgrade, have the test repeated and submit their applications for a grant. The closing date of the program for assessments is March 31 2007.

"For most people, they have the second test and they get back the cost of the assessment and they're happy," said Olhovsky. "They can see the improvements they have made have had an effect. And they can do other things like using energy efficient bulbs to save energy costs."

- For more information visit the Office of Energy Efficiency at <http://www.oeo.nrcan.gc.ca>.

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