

Snuggle up to a geothermal pump

Save money and the planet with a green retrofit

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There tends to be a lot of irrational behaviour and knee-jerk investments made during an economic crisis. A friend of mine, for example, recently took eight years' worth of savings, waltzed into the bank and said, "Put it all on uranium."

However, the best thing to do with your money right now --and yes, this will sound lame, but bear with me--is use it for eco-friendly home retrofits.

Before you groan and toss this whole section into the recycling bin, consider the numbers (this applies to Ontario residents): It costs about \$100 to \$300 for a green audit on a house, 50% of which the provincial government will rebate; it costs roughly \$20,000 for a ground-source, or geothermal, heating and cooling system, but again, both federal and provincial governments will reimburse up to \$7,000; the typical payback period for this retrofit is five to 10 years, and with the system reducing electricity use by up to 90%, this means the typical household pays no more than \$300 a year in energy bills.

Confusing? Well, maybe. But anyone in the industry will affirm this leads to major energy and financial savings, not to mention an increase in property value.

"It's basically the same as buying an indefinite 20% bond," says Duncan Kushnir, an environmental consultant and engineer based in Toronto. "When people start figuring out which retrofits really pay off, they start considering them as serious investments."

This is where things get tricky -- if the game of ecoretrofitting is approached as if it were the board game Monopoly, one might argue that ground-source heating and cooling has the value of Boardwalk, whereas something like switching to compact fluorescent bulbs or re-caulking the window seals leads to profit margins more in line with Baltic Avenue.

It's not as though we shouldn't be thinking about individual light bulbs and potential draft sources, because these are important, but when it comes to making big moves, having the right green strategy can mean the difference between red and black.

Perhaps it's no wonder, then, why almost all of Toronto's downtown bank towers were quick to sign up

with En-Wave's Deep Lake Water Cooling system, which has been running since 2004 and operates on the same principle as geothermal technology, using already-cold water at the bottom of Lake Ontario to reduce building temperatures in the summer.

The world's largest system of its kind, it eliminates 79,000 tonnes of carbon dioxide annually in the downtown core, saving enough electricity to power 6,800 homes. Regardless of the environmental benefits, though, the end financial result is that the owners of the Royal Bank Plaza and TD Bank Tower -- not to mention the HBC headquarters, Trump Tower, the Air Canada Centre and City Hall, among others -- get to keep hundreds of thousands of dollars, sometimes even millions, in their pockets each year.

Taking it back to an individual level, the way to start figuring out all the potential savings is by working with a contractor or researching online. It's wise to look for where the greatest rebates are, too. If those in Ontario, for instance, go to the website for the Ontario Home Energy Savings Program, at homeenergyontario.ca, there's a handy chart that says how much money is awarded for each retrofit.

While most rebates are in the low hundreds, getting a solar hot water system installed nets the property owner \$1,000, while simply insulating the attic or basement can earn \$1,200.

And don't be fooled by the subway posters advertising rebates for dual-flush toilets and efficient washing machines -- those only amount to around \$60, and the savings on the water bill tend not to add up to very much.

"Water is so insanely cheap in Canada," Kushnir says. "So although conserving water is good, it doesn't make you rich. The things that save you lots of money are the energy-related things. About a third of our energy consumption is for heating and cooling, another third goes to transportation, and the final third is for food."

So the ultimate credit-crunch solution: Either install a geothermal pump system or significantly reduce heat and air-conditioning usage, then sell the car and go vegetarian.

Well, OK, maybe just start with the heating stuff first.

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