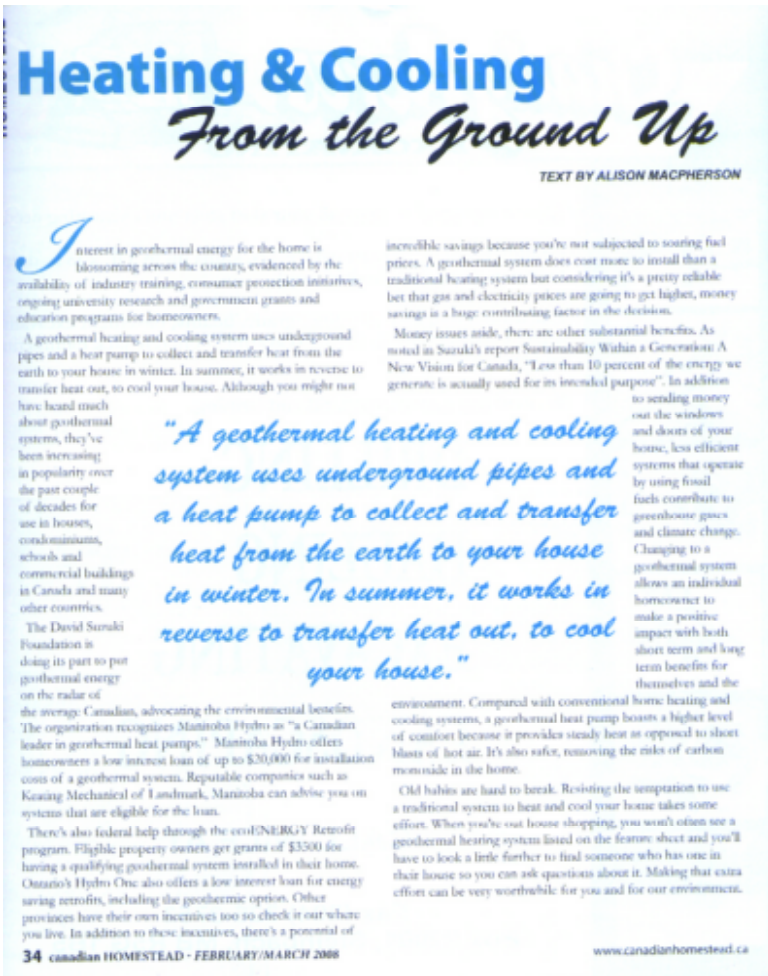


## Heating & Cooling From the Ground Up

By Alison Macpherson

Interest in geothermal energy for the home is blossoming across the country, evidenced by the availability of industry training, consumer protection initiatives, ongoing university research, and government grant and education programs for homeowners.



A geothermal heating and cooling system uses underground pipes and a heat pump to collect and transfer heat from the earth to your house in winter. In summer, it works in reverse to transfer heat out, to cool your house. Although you might not have heard much about geothermal systems, they've been increasing in popularity over the past couple of decades for use in houses, condominiums, schools and commercial buildings in Canada and many other countries.

The David Suzuki Foundation is doing its part to put geothermal energy on the radar of the average Canadian, advocating the environmental benefits. The organization recognizes Manitoba Hydro as "a Canadian leader in geothermal heat pumps." Manitoba Hydro offers homeowners a low interest loan of up to \$20,000 for installation costs of a geothermal system. Reputable companies like Keating Mechanical of Landmark, Manitoba can advise you on systems that are eligible for the loan.

There's also federal help through the ecoENERGY Retrofit program. Eligible property owners get grants of \$3500 for having a qualifying geothermal system installed in their home. Ontario's Hydro One also offers a low interest loan for energy saving retrofits, including the geothermic option. Other provinces

have their own incentives too so check it out where you live. In addition to these incentives, there's a potential of incredible savings because you're not subjected to soaring fuel prices. A geothermal system does cost more to install than a traditional heating system but considering it's a pretty reliable bet that gas and electricity prices are going to get higher, money savings is a huge contributing factor in the decision.

Money issues aside, there are other substantial benefits. As noted in Suzuki's report *Sustainability Within a Generation: A New Vision for Canada*, "Less than 10 percent of the energy we generate is actually used for its intended purpose". In addition to sending money out the windows and doors of your house, less efficient systems that operate by using fossil fuels contribute to greenhouse gases and climate change. Changing to a geothermal system allows an individual homeowner to make a positive impact with both short term and long term benefits for themselves and the environment. Compared with conventional home heating and cooling systems, a geothermal heat pump boasts a higher level of comfort because it provides steady heat as opposed to short blasts of hot air. It's also safer, removing the risks of carbon monoxide in the home.

Old habits are hard to break. Resisting the temptation to use a traditional system to heat and cool your home takes some effort. When you're out house shopping, you won't often see a geothermal heating system listed on the feature sheet and you'll have to look a little further to find someone who has one in their house so you can ask questions about it. Making that extra effort can be very worthwhile for you and for our environment.