

Marketing an alternative

Installation firm is also advocate for geothermal heating systems

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Jim Bolger acknowledges that most people would never describe him as an environmentalist.

But as the cost of home heating oil and natural gas soared, he says, and as the demand for electricity began testing the limits of the province's hydro grid, "a new awareness" dawned on him.

There must be a better way, thought Bolger, a businessman who is also the Ward 2 councillor at Waterloo City Hall.

So he began researching alternative energy solutions.

One solution in particular -- geothermal heating and cooling, which taps into natural energy from the ground -- sounded so practical that Bolger turned it into a business.

Earth FX Energy Inc. sells, installs and services geothermal energy systems that are put together by another business, NextEnergy Geothermal Solutions of Elmira.

Prior to starting Earth FX -- the name is a variation of earth effects -- Bolger spent 20 years as a consultant and project manager in the construction of telecommunications towers.

Much of the work was in the Toronto area and Bolger wanted to focus his business interests closer to home.

He became interested in wind energy and formed a consulting company that is now working with the University of Waterloo on a project to develop vertical wind turbine systems for urban environments.

While doing his research, Bolger heard about NextEnergy.

And when he visited the company, he realized its products were a practical alternative-energy solution he would enjoy selling.

"It was a perfect fit and the timing was good," Bolger says.

THREE PARTNERS



PHILIP WALKER, RECORD STAFF

Jim Bolger (right) and Paul Dietrich (left) launched home-based Earth FX Energy Inc. of Waterloo with a third partner, Jeff Stanley. Randal Palach (centre) is president of NextEnergy Geothermal Solutions of Elmira, a distributor of systems that Earth FX Energy installs.

He formed a profit-sharing agreement with two men he knew: Jeff Stanley and Paul Dietrich. Both had experience in heating-and-cooling systems, plus in the excavation and the laying of pipes, all of which is necessary to install geothermal systems.

That's how Earth FX Energy was formed.

Geothermal energy systems take advantage of the earth's capacity to absorb and release energy from the sun.

Loops of piping can be laid in trenches in the ground or, alternatively, from a pond if one is available.

There are also open-loop systems that draw water directly from a well.

In a typical system, water circulating through the loop absorbs heat from the ground and is pumped indoors to warm the house in winter. In summer, the process is reversed and heat from air in the home is pumped out into the ground, to help cool the building.

For residential customers, a dealer such as Earth FX will draw up the contract, buy the equipment from a supplier such as NextEnergy and do the installation.

For larger commercial customers, NextEnergy Solutions will put together a package that includes the engineering, consulting and installation. Once that is done, Earth FX Energy, as a dealer, can bid for the installation job.

Although his customers so far have been homeowners, Bolger says he sees a lot of potential in commercial buildings.

"Actually, I have had as many inquiries from the commercial side as I have on the residential side."

The interest in converting to geothermal is high, especially among those homeowners who are still depending on home heating oil, Bolger says.

Bolger says one customer he recently visited became fed up last winter after paying about \$1,500 for oil that heated his home for only a month.

Oil has also become an insurance issue, Bolger adds.

"People eventually have to get their oil tanks replaced and are finding that insurance companies are either reluctant to insure them, or are asking for substantial increases in their insurance premiums."

Installing a geothermal system in a home is much more expensive than buying a new oil or natural gas furnace. It costs about \$18,000 to \$22,000, Bolger says.

But even for an older home, the savings on the operating side will more than pay for the investment over time, Bolger says.

The energy cost will be about one-half to two-thirds less than oil and about one-third to one-half less than natural gas, he says.

"Plus, you are not dependent on fossil fuel and you don't have the volatility of fossil fuel price increases," he said.

There are other advantages, such as the fact that you don't have the natural gas flame and therefore have no need for carbon-monoxide detectors, he says.

Also, heating and cooling is done by one unit in the basement, about the size of a fridge. You don't need an outside air conditioning unit, which can be very noisy, he says.

The unit is comprised of a condenser-compressor and a fan. It does use electricity, but it is energy efficient, Bolger adds.

When cooling a house in the summer, a geothermal system eliminates the high peaks of electricity use that one gets with traditional air conditioning units, Bolger says.

STARTUP LEGWORK

Starting Earth FX involved doing all the leg work that small businesses typically require.

Bolger and his partners had to write a business plan and develop a marketing strategy, which included coming up with a name, a logo and flyers to promote the business.

They also created a website -- www.earthfxenergy.com -- which was done with the help of another Waterloo company, We-Create Internet Solutions.

"It's not the kind of product you can sell just by handing out a business card or putting a number on the back of a napkin," Bolger says.

Although there are a lot of competitors installing various kinds of heating-and-cooling products, Bolger says, what distinguishes his business is that it specializes exclusively in geothermal systems.

Bolger also says working through NextEnergy Solutions greatly simplifies the business for him.

The Elmira-based distributor of the equipment is only a short distance away and it provides a great deal of support to its network of dealers, he says.

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Q & A

We asked Jim Bolger of Earth FX Energy Inc. in Waterloo:

Q. What goal have you set for your company?

A. "Our goal is to get 10 to 12 per cent of the residential and commercial market in geothermal energy. I see tremendous growth potential on both the residential and the commercial side. And with this year's heating bills, we can only enhance that growth."



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