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This illustration showcases the different types of GeoSmart Energy's geothermal loop systems: horizontal loops, vertical loops, pond or lake loops, and open loops.



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Known largely for food and agriculture, Cargill also provides wholesale power marketing and risk-management products and services for energy customers across North America.

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Now one of the largest residential air conditioning installation and service companies in the Boston area, Alvin Hollis & Co., Inc. has been around in various incarnations for well over a century.

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GeoSmart Energy

A more efficient HVAC system rises from below the surface

BY ERICA ARCHER

GEOSMART ENERGY IS BANKING ON customers who will heat and cool their homes with energy found in their own backyards. Not by striking oil, but by tapping a simpler, cleaner energy source: geothermal energy. GeoSmart collects the sun's heat from several feet beneath the Earth's surface, where it maintains a consistent temperature year-round—ranging from 50 degrees Fahrenheit in Canada's colder spots to 60 degrees in warmer locations, with the depth varying according to local weather conditions. Geothermal heating operates by removing and redistributing heat like a refrigerator. To cool the home in the summer, when the earth is cooler than the air, the geothermal systems use the earth as a heat sink, removing heat energy from the home and sending it into the earth (the process also is referred to as ground-source heat, or geoexchange technology). "If you think of the principles of thermodynamics, there really isn't such a thing as hot or cold; there's just heat and less heat, if that makes sense. Nature wants equilibrium," explains co-founder and vice president of sales Chad Brezynskie.

Brezynskie founded GeoSmart in 2005 with Stan, Cheryl, and Stephen Marco. Stan Marco and Brezynskie met while working for another geothermal energy system distribution company. When they decided to team up to form their own company, Stan had more than 25 years of heating and geothermal industry experience; Brezynskie brought a slightly shorter stint in the field but a talent for sales and marketing. Part of their inspiration for starting GeoSmart also was to centralize and distribute technical knowledge about geothermal systems.

According to the Canadian Geox-



GeoSmart Energy's Premium G forced-air systems set a new standard for heating and cooling efficiency while providing exceptional energy savings.

change Commission, the Canadian geothermal industry has grown between 150 and 200 percent in the past year. Rising energy prices (especially among Canadian government-run utilities), government incentives for green energy in both Canada and the United States, and concern over climate change are all factors that have boosted interest in geothermal as of late, Brezynskie says, even though the technology is about 30 years old. The economy also has driven interest in more efficient HVAC systems. "When you look at where the

markets are today, what other kind of investment can you make that is going to make you more comfortable in your home, pay you back anywhere from 10 to 20 percent returns, and reduce your environmental footprint?" he says.

By focusing exclusively on geothermal systems and the knowledge needed to install and maintain them, GeoSmart has carved a niche in the market. "We have been very successful as an organization at selling these systems," Brezynskie says. "I think 'system' is one of the key

AT A GLANCE

LOCATION:
CAMBRIDGE, ON

AREA OF SPECIALTY:
DISTRIBUTORS OF
GEO THERMAL ENERGY
SYSTEMS FOR HOME
AIR CONDITIONING,
CENTRAL HEATING,
AND WATER HEATING

EMPLOYEES:
18



“I think ‘system’ is one of the key words. We don’t sell boxes; we don’t just sell furnaces. A GeoSmart system includes everything that you need to install it.”

Chad Brezynskie, Cofounder & Vice President of Sales

words. We don’t sell boxes; we don’t just sell furnaces. A GeoSmart system includes everything that you need to install it. And we’ve been very successful at bringing contractors in who have never done these installs before.”

During difficult economic times, the money-saving efficiency of geothermal systems becomes a key selling point. Geothermal heat exchange is twice as efficient as conventional air-conditioning systems at cooling a home, and can be up to five times as efficient for heating. “In the heating mode, a GeoSmart system carries COPs [coefficients of production] as high as 5.0, which translates into an efficiency of 500 percent, compared to a conventional furnace, which might reach efficiencies as high as 96 percent. That means that for every dollar you spend on electricity to run the system, it can deliver \$5 of output heat energy,” Brezynskie says.

Although geothermal technology has been around for many years, formal training for geothermal contractors is a fairly recent development. GeoSmart’s training sessions at its Cambridge, Ontario office have become a powerful tool for expanding business and strengthening contractor knowledge. “We share our knowledge for the good of the industry,” Brezynskie says. “Training has become an enormous part of our business. Take the heating companies out there that are selling our product: What better way to encourage them to sell more than if, when they install the product, everything goes well?” EIQ

