

FOR IMMEDIATE RELEASE

CGC announces the winners of the 3rd Annual GeoExchange Excellence and Leadership awards

Montréal, November 25, 2008 – The Canadian GeoExchange Coalition heartily congratulates the 2008 winners of the 3rd GeoExchange Excellence and Leadership awards.

In total, more than 20 applications were submitted and pre-selected through a number of technical criteria including:

- innovation, originality and complexity of the work in relation to the building use;
- technical difficulties encountered / solved in the project; demonstrated energy savings;
- to what extent the project influences building design in Canada and a more extensive use of geothermal energy;
- whether the project forms part of a global energy efficiency plan; and
- comfort for occupants and users.

Prizes of Excellence were awarded to:

- Paradise Geothermal and Delta Geothermal for ***The Naramata Residence***
- Southern Comfort Mechanical for ***The Albert's Lake Subdivision***
- Enermodal Engineering for ***The Fifth Town Artisan Cheese Co.***
- Pageau Morel Associates for ***The 740 Bel-Air (Normand-Maurice Building), the Public Works and Government Services Canada (PWGSC) building***

The Prize for Leadership was awarded to:

- Mr. Stan Marco, Co-Founder and CEO of GeoSmart Energy Inc.

The award ceremony took place in Toronto on November 17, 2008 at the 3rd National GeoExchange Business & Policy Forum.

An independent jury of energy experts agreed to manage the selection process. Jury members included:

- **Michael Angemeer**, CEO, Veridian Corporation
- **Frank Came**, Senior Advisor Strategic Initiatives, GLOBE Foundation of Canada
- **Paul Shervill**, OPA, VP Conservation and Sector Development
- **Garth Thoroughgood**, A/Director, Geothermal Resources, BC Ministry of Energy, Mines & Petroleum Resources

The Canadian GeoExchange™ Coalition acts as the industry catalyst to unite private and public sector stakeholders, and to expand the market for geoexchange™ technology in Canada. As the nexus of information, training, certification, industry standards and public awareness, our mandate is to work with stakeholders to build the necessary infrastructure to foster the growth of the Canadian geoexchange™ industry. For more information, visit www.geo-exchange.ca

Backgrounder

Awards for Excellence

Region: BC

Paradise Geothermal and Delta Geothermal for *The Naramata Residence*

Designed to be an extremely low exergy system, this project utilizes a large degree of radiant cooling, and is very tightly controlled with a direct digital control system. The results were more surprising than anticipated. The entire 4,600 square-foot house operates with a single 4 ton, water to water R-22 heat pump and only 540 lineal feet of vertical borehole. Paradise Systems and Delta Geothermal cooperated on the system, each subsidizing their portion of it, enabling its unusual technology to be used as a research project.

This system uses 100% sizing with emergency back-up heat only - which is not designed to completely heat the home by itself. This allows for a smaller electrical service as well as allowing the home to remain disconnected from a local natural gas grid - which provides substantial cost savings.

The average heating and cooling costs for the first 2 years of operation was \$332.00 per year. The home is a shining example of the natural mesh between proper design, heat pumps, sophisticated controls strategy, forced air and hydronics.

Region: Western Canada

Southern Comfort Mechanical for *The Albert's Lake Subdivision*

The Albert's Lake Subdivision is located approximately 8 hours' drive north of Winnipeg. The project includes 32 homes in four-plexes equipped with an integrated geoexchange system, including electric back up heat, thermostat, in-floor heating, ductwork distribution and heat recovery ventilation. This project was developed to model improved northern housing and northern housing construction techniques, and introduces both geothermal heating systems and new winter construction practices for the north. Due to the harsh winter conditions experienced in Cross Lake, winter construction is an expensive and challenging proposition and this project focused on meeting those issues.

By including an integrated geothermal system with heat recovery ventilation, the Band owned infrastructure optimizes the use of energy, reduces reliance on provincially owned energy grids and reduces the green house gas emissions and air contaminants arising from local sources the Cross Lake Band can expect to receive a 60%-70% reduction in heating costs this winter.

Region: Ontario

Enermodal Engineering for *The Fifth Town Artisan Cheese Co.*

A large amount of energy is required in a building like Fifth Town where heat is required for the cheese-making process, but cooling is required in a different part of the building for refrigeration and cheese curing. In addition, manufacturing facilities, such as Fifth Town, are especially difficult to make energy efficient.

Energy consumption in manufacturing processes is generally considered inflexible and changes in the process are typically rejected since a specific process is essential to the overall business plan. The Enermodal design team looked to a variety of innovative techniques to decrease energy use without affecting the cheese-making process.

Two important innovations were the use of geoexchange –that is, a heat pump system - and the radiant slab design of the cheese caves. The miracle of heat pumps provide hot water to the cheese-making process and simultaneously conditions the underground caves where cheese is aged and cured.

Completed in July 2008, the new 403 m2 home of the Fifth Town Artisan Cheese Co. is designed to demonstrate leadership in building design.

Region: Québec

Pageau Morel Associates for ***The 740 Bel-Air (Normand-Maurice Building), the Public Works and Government Services Canada (PWGSC) building***

740 Bel-Air is a multi-client building measuring 15,700 m² that houses offices, storage areas and services for the various needs of four clients: Department of National Defence, the Royal Canadian Mounted Police, Human Resources and Skills Development Canada and the Canada Revenue Agency.

Since this brownfield project already involved excavating a large area contaminated land, Pageau Morel suggested the installation of a thermal reserve using sand as backfill material because of its good heat capacity, its thermal conductivity and its low cost compared to other backfill materials. The necessary tubes (over 20 km) were installed in this bed of sand to load and withdraw energy from the thermal storage bank.

Thanks to this solution, a state-of-the-art geexchange system was installed underneath the building, making the installation more cost-effective. Moreover, the thermal storage bank allowed the number of wells to be reduced to 60 instead of the 100 that were originally planned, while at the same time shortening the time frame for excavation.

After one year of operation, the actual energy consumption exceeds the values estimated through simulations and represents a 60% reduction in energy consumption and a 50% energy cost reduction in comparison with the reference building.

Award for Leadership**Mr. Stan Marco, Co-Founder and CEO of GeoSmart Energy Inc.**

Stan Marco is among the geothermal industry's most well-respected and highly sought after knowledge experts and educators.

His leadership within the industry reaches beyond Canadian and U.S. borders. Calls from European, Caribbean and Ukrainian counterparts have led to trips to the Bahamas, Germany, and Ireland as well as discussions with the Ukraine, further reinforcing his status as a leading international Geothermal Specialist. He represents Canadians in these discussions, and recognizes it as an important opportunity to further strengthen Canada's status as leader in geothermal technology and its applications in both residential and commercial markets.

By sharing his extensive expertise, he hopes to help position Canada as the world's geexchange leader characterized by exceptional products, innovative thinking, superior technology and leading-edge training.

His best practice approach has influenced close to 300,000 geothermal heat pump installations across Canada and the U.S.

Today, Stan Marco owns the largest non-manufacturing-based distributor of geothermal products in Canada and has recently open the largest geothermal distribution facility in North America. His company has a network of over 300 dealers across Canada and more than 1000 contractors throughout Canada and the U.S.

Mr. Marco's leadership has been instrumental in securing a recent partnership agreement with America's largest distributor of plumbing, heating, cooling and piping products in the Northeast, opening the door to expanding Canada's geothermal leadership in U.S. markets.