Expanding Our Energy Solutions

What an exciting year of growth and opportunity for Hamilton Community Energy!

Since the fall of 2010, we’ve expanded our original district energy system to accommodate projects that are revitalizing the downtown core including the renovation of the Hamilton City Hall, Hamilton Farmers’ Market and Central Library, Lister Block and the MacNab Street Snowmelt.

We’ve also forged a strategic alliance and completed a satellite operation that combines ground-breaking solar thermal and geo-exchange technologies with conventional technologies at McMaster Innovation Park (MIP). Operational since January of this year, we’ve already identified and are working on new ways to extend our innovative energy solutions to expansion of the MIP business park.

I’m so proud to see HCE’s reputation for innovation and excellence grow. Our partners continue to look to us for the substantial benefits and savings that only district energy can provide because we’ve shown, over and over again, that we’re knowledgeable, provide innovative yet cost-effective solutions and are easy to work with.

We look forward to bringing new and renewable energy solutions to the community and are always looking for opportunities to provide our solutions.

Ron Harten
General Manager, Hamilton Community Energy

HCE Delivers Ground-breaking Hybrid Energy Solution for McMaster Innovation Park

The MIP project, completed in January of this year, is one of a very few in Ontario that combines conventional DES with geo-exchange and solar thermal technologies. It is currently heating and cooling approximately 350,000 square feet of offices, laboratories and the CANMET Materials Laboratory (which includes a small steel mill).

The ‘hybrid’ system connects and interfaces existing boilers and chillers with a new geo-exchange system consisting of eighty-one 500 ft. geo wells and the CANMET Material Lab’s solar thermal technology.

For cooling, the district energy system is designed to provide 85% of the facility’s requirements using heat pumps interfaced with the geo-exchange field in cooling mode and two chillers.

In heating mode, domestic hot water and heating loads are served first by the solar thermal system, with incremental heating then being supplied by the heat pumps and geo field. Conventional hot water boilers are called upon to support heating peaks and heating supply redundancy.

Excess captured solar energy helps charge the geo-exchange well field for use later when the geo-exchange system is in heating mode.

“We’ve taken a whole-building approach to sustainability in the design and construction ...”
HCE Delivers Groundbreaking Hybrid Energy Solution for McMaster Innovation Park (Continued)

of the CANMET Materials Laboratory and a district energy system is a key element of that approach,” says Zach Douglas, President, McMaster Innovation Park. “We are thrilled to be working with Hamilton Community Energy, an organization that shares our commitment to innovation, to add geo-exchange and solar thermal technology to our existing equipment. The DES is a critical element in our LEED platinum certification [for Leadership in Energy and Environmental Design]. We also expect it to be cost-effective and deliver efficiencies for our tenants.”

With the completion of the MIP project, HCE is well positioned to support future development and expansion of the business park. The project is representative of the strategic investment opportunities HCE is actively seeking to expand the reach of its environmentally conscious and ‘green’ services in the community.

Inspiring the Next Generation of Energy Stewards

Hamilton Community Energy continues to open its doors to local area students as a way of promoting sustainability and showcasing real life applications of energy solutions that are clean, safe, affordable and environmentally responsible.

A proud partner in the City of Hamilton’s Vision 2020, HCE works with educators through various high school and college co-op programs. HCE conducts student tours to ensure that the next generation of energy stewards has first-hand exposure to the latest technologies, and is aware of potential career paths in the energy sector.

For each of the last four years, teacher Tim Carr has been bringing students from his Waterdown District High School’s ‘Outbound’ program to HCE to learn more about the alternative energy sources they’ve been studying in class. “We talk a lot about using energy efficiently. At the same time our students are bombarded with concern about traditional energy sources and greenhouse gases. I think it is very hopeful for them to see what HCE and the City are doing together to fuel solutions,” says Mr. Carr explaining why he thinks the tour is so valuable. “They see innovative technologies and in turn, promote solutions and engage other people in the community in conversations about conservation.”

If you know someone from the education community who would like to bring a group of students to tour HCE’s downtown Energy Centre, or to learn more about HCE’s education partnerships, go to http://hamiltonce.com or contact Betsy Rouw at (905) 317-4595 or betsy.rouw@hamiltonucorp.com
HCE in the Global Spotlight

Hamilton Community Energy showed industry and municipal representatives from across Canada and around the world, how it is deploying highly efficient and clean energy solutions on an urban scale. The tour was part of the Joint Canadian District Energy Association (CDEA) / International District Energy Association (IDEA) Annual Conference.

HCE was profiled in IDEA's District Energy Magazine in an article entitled ‘A Canadian Renaissance: District energy, new development go hand in hand’ and was selected as a featured tour location during the conference. HCE's global recognition was earned not only because of its use of ground-breaking technology but also to demonstrate how municipalities, like the City of Hamilton, are able to seamlessly integrate district energy operations into their urban centres as part of their commitment to sustainable communities.

The international group toured HCE’s district energy operations including the cogeneration plant at 79 Bay St. N. and the new hybrid system at McMaster Innovation Park.

“We’re very proud of all of the many energy solutions we’re utilizing in collaboration with the City and strategic partners like MIP, to drive innovation and reduce Hamilton’s carbon footprint,” says Katie Mills, CFO of HCE. “I’m thrilled we had the opportunity to share some of our experiences and showcase HCE’s operations with our international colleagues.”

Participants were impressed with what they saw and expressed confidence that they would be able to apply valuable learning to their own energy challenges. As someone who was involved with the original design of the geo field at MIP, tour participant and Renewable Energy Engineer for Hemmera, Rachel Bolongaro, was excited to see how the design has been executed.

“HCE has demonstrated a strong knowledge of conventional and renewable technology to build an effective and efficient hybrid system,” commented Ms. Bolongaro. “It’s equally impressive to see how they are using state-of-the-art systems at both facilities to monitor their energy systems.”

Ron Harten (centre, in black shirt) explains how excess hydro is sold back to the electrical grid.

Now is the time to get ready for winter.

Don’t wait for the first cold snap to find your heating systems are not working properly. Save money, save frustration, and save from freezing by ensuring your system is clean and running efficiently before the frost sets in.

An ounce of prevention...

will keep you warm when the thermometer drops and cool when temperatures rise. Developing and following a Preventative Maintenance (PM) Calendar is one of the best ways to avoid surprises and costly repairs. Like regularly scheduled oil changes for your car, PM helps protect your investment and increases efficiency. If you would like assistance in developing a checklist for your energy system, please do not hesitate to contact us directly.
Reducing Our Carbon Footprint

The amount of carbon HCE has helped displace, since inception, versus conventional technology.

HCE is Growing to Better Support You!

Peter Beasley
Operations/Maintenance Engineer

A native of Hamilton and a graduate of the Northern Alberta Institute of Technology, Peter first came to HCE in 2005, following a 17-year career with St. Joseph’s Healthcare. He re-joins the company after a brief two-year sojourn. “I love the plant, the technology we use, and the fact that we’re supporting sustainability and the environment,” says Peter. “And, I enjoy the role I play in making sure we operate and maintain the equipment in the most economical way.” Peter looks forward to monitoring and troubleshooting operations to ensure efficiency and customer satisfaction.

Jacqui Burroughs
Manager - Financial Reporting and Accounting

Jacqui is a Certified General Accountant with an Honours Bachelor of Commerce degree and a three-year Business diploma. She comes to HCE with more than 10 years of accounting and finance experience in the electrical contracting, renewable energy and cable industries. Jacqui manages the day-to-day accounting and reporting functions for HCE. “I’m excited to work with Ron [Harten] on developing standardized modelling that will improve the estimating process and help us acquire and serve new clients,” Jacqui says. Jacqui is the go-to person for all accounting inquiries.

Betsy Rouw
Administrative Coordinator

Betsy has more than 30 years of experience working for a variety of companies and industries, and 25-plus years of volunteer involvement with Girl Guides of Canada. She provided administrative support for one year on the International Financial Reporting Standards (IFRS) project with Horizon Utilities before accepting her current position in July of last year. Betsy supports the project teams, sets up training for new employees, coordinates tours and meetings, and keeps the office running smoothly. “I enjoy the energy of the people I work with and look forward to connecting with our customers and the public, especially those who are interested in coming in to tour our facility,” comments Betsy.

Why HCE?

- No capital investment required for conventional energy systems and technology
- No need for multiple external service contracts (fuel supplier, maintenance, repairs, etc.)
- No day-to-day operating costs
- Elimination of on-site generation, emissions or storage of combustible fuels
- Protection against fluctuating energy costs
- Reduced liability and risk
- Solid capital structure with the ability to build the right energy solution and partnerships
- 100% redundancy
- Significant reductions in greenhouse gas emissions

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HCE Exchanger is published by Hamilton Community Energy, a Hamilton Utilities Company
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