

the distributor

AN ELECTRICITY DISTRIBUTORS ASSOCIATION PUBLICATION

ONTARIO'S ELECTRICITY DISTRIBUTORS:

Leaders in Delivering Conservation
& Demand Management Programs



 **EDA**
The Voice Of Ontario's Electricity Distributors
www.eda-on.ca

Creating a Culture
of Conservation for
All Ontarians



By installing one
of these...

you can replace
one of these...

for a brighter this.

How to save energy in other ways.

Want to be more environmentally friendly? It's not hard; here are a few simple, yet effective tips to reduce your impact.

LEAVE YOUR CAR IN THE DRIVEWAY

Try to take your bike, walk, carpool or public transit at least once a week and when you have to drive, combine errands to save fuel.

CHOOSE HIGH-EFFICIENCY PRODUCTS

New appliances use up to 40% less energy than older models. If you're in the market for a new car, make sure fuel efficiency is a consideration.

DON'T IDLE

If you're going to stop for more than 10 seconds and you're not in traffic, turn off the engine. It saves fuel and is better for your vehicle.

SUPPORT YOUR LOCAL FARMER

Buy produce grown by local farmers and reduce greenhouse gases from the transportation of food.

WATCH THE THERMOSTAT

In summer, use fans and open windows at night instead of having the air conditioning on. In winter, turn the furnace down and open the blinds to let the sun heat your house!

WATCH YOUR WASTE

Composting organic waste and recycling papers, plastics, cans and bottles will drastically cut greenhouse gases associated with landfills. Look for products with less packaging and find creative ways to reuse articles instead of throwing them out.

FLICK OFF

Turn off lights and appliances when they're not being used. Unplug electronics and appliances if they won't be used for a while—that clock on your VCR is using electricity!

AVOID PLASTIC GROCERY BAGS

Reusable bags provided at local grocers will reduce plastic bags in our landfills and save resources.

Welcome Message from Ontario's Minister of Energy and Infrastructure



The Hon. George Smitherman
Deputy Premier,
Minister of Energy and Infrastructure



Here in Ontario, we are in the midst of a significant overhaul of our energy system - not just the infrastructure, but the very philosophy of how we will power this province for decades to come.

As Ontarians, we all want reliable power that doesn't cost the Earth. That's why conservation and renewable energy have been - and must continue to be - the focus of that overhaul.

Together, we've already done some good work. At the government level, we've set tough long-term and intermediate targets and are making serious program investments.

And you, the province's local distribution companies, have successfully delivered many conservation programs to your communities. For example, about 90,000 PeakSaver units have been installed province-wide, representing about 45 megawatts of potential peak demand savings.

And as of this past July, you have installed about 1.6 million smart meters across the province, a central tool in our drive to bring a culture of conservation to Ontario's homes and small businesses.

As well, you are working with local governments to support renewable energy projects in communities across the province.

Our collective efforts are starting to pay off: We've met the first key provincial conservation goal of a 1,350 megawatt savings, and we're setting our sights on a second.

I must commend you on your tremendous efforts to date, many of which are highlighted in the pages of this special edition.

Of course, much remains to be done if we are to reach our energy goals.

As the new Minister of Energy and Infrastructure, I plan to take the conservation and renewables challenge head on and I am counting on your continued efforts and support.

After all, you are Ontario's agents of change - you bring the green energy message to the front doors of this province. I look forward to working with you in the weeks and months to come.

The Honourable George Smitherman
Deputy Premier, Minister of Energy and Infrastructure



Great work, Ontario.

We just earned an impressive A on the Canadian Energy Efficiency Alliance's Report Card. That's a significant improvement from our 2004 grade of C- and it's all thanks to the combined efforts of Ontarians. By working together, we have established Ontario as a leader in energy conservation. And that rates top marks in anybody's books.



Welcome Message from Ontario's Chief Energy Conservation Officer



Peter Love
Ontario's Chief
Energy Conservation Officer



As these comments are being considered, the world's eye is on the Olympic Games in Beijing, a monumental event that represents a pinnacle of effort, exertion, and reward.

It's easy to be inspired by exceptional goals - like winning a medal, or setting a new record for performance. They provide a motivating emotional uplift and sense of purpose that concentrates thought and action to overcome obstacles and surpass established objectives.

Here in Ontario, and in the context of energy conservation, we also have some extraordinary targets to pursue: reducing peak demand by 1,350 MW by the end of 2010 and 6,300 MW from peak by the end of 2025. These are among the most ambitious conservation targets anywhere. And above and beyond them, as you know, we are striving to develop something more: a true "culture of conservation" in Ontario.

None of this enjoys the fanfare that accompanies a "world-class" athletic contest or other celebratory events on a grand scale. But they are no less important - more so, I would argue. Because achieving these goals is critical to the future well-being of Ontarians who need a reliable, economical, efficient and sustainable power system to live their lives.

I am confident that you identify with our conservation "agenda" and trust you know that your efforts are essential for realizing it. Through this message, I want to encourage you to take full advantage of the OPA's programs for the benefit of your ratepayers.

Ultimately, I want to foster your continued efforts and to share appropriately in your successes.

As representatives of organizations committed to delivering value for your communities, you play a unique role in and have a special responsibility for connecting your customers with energy conservation. You have the power to get them to "*think, believe and act*" when it comes to conservation.

I hope you will use that power well and that together we will celebrate the positive outcomes well into the future.

Peter Love
Ontario's Chief Energy Conservation Officer

Delivering on Conservation Through Innovation and Leadership

The EDA's Conservation and Demand
Management (CDM) Caucus

Ontario's Electricity Distributors' CDM
Coordinating Body

Helping to Create
a Conservation
Culture in
Ontario

For more information on the EDA's
CDM Caucus and the role that is being
played by the province's electricity distributors in
conservation, please contact the EDA at (905) 265-5300 or
toll free at 1-800-668-9979, or visit us at www.eda-on.ca

Message from the EDA Chair



Bryan Boyce
Chair, EDA

It is a great pleasure to introduce this special edition celebrating the contributions of Ontario's local distribution companies (LDCs) in the delivery of conservation activities and programs to their communities and the province at large.

Distributors are proud of the leadership role they have played, and continue to play, in creating a culture of conservation among Ontarians. It is a conservation movement that is gaining momentum and reaching out to all electricity users - residents, businesses, large industry and our institutions.

As you will read in the following pages, conservation programs are an important part of this movement, however, distributors are also involved in activities that are playing a critical part in promoting both conservation and renewable energy projects - many are working with local generators to connect distributed generation projects, others are working in partnership with their local municipalities on community-based renewable and energy efficiency initiatives, and yet others have developed sophisticated education programs and activities for children relating to electricity conservation and the environment.

Distributors are also championing the government's smart meter initiative, with the installation of over 1.5 million meters to date and are on track to deploying over four million meters to residents and small businesses by the 2010 target date. Smart meters will provide customers with the tools they need to monitor their energy use, shift power in times of high demand and encourage the adoption of conservation measures at home and at work.

Working in cooperation with the government, regulators and the Ontario Power Authority (OPA), electricity distributors are committed to ensuring that their customers have the tools and programs that they need to help them conserve.

LDCs have been in the business of delivering 'grassroots' conservation activities to their communities since 2005, when the current provincial government first looked to distributors to develop and implement 3-year Conservation and Demand Management (CDM) plans. Between 2005 and 2007 distributors delivered hundreds of custom activities and programs which when combined realized electricity savings of over one million megawatts over the three-year period - that's enough energy saved to power over 100,000 homes for a year.

Since 2007, distributors have partnered with the Ontario Power Authority (OPA) to deliver province-wide programs. From programs that have successfully removed tens of thousands of old inefficient refrigerators from people's homes, to incentives to retrofit commercial businesses with energy efficient technologies, province-wide programming is making a difference by providing the practical means for consumers to take action across the province.

The EDA, through its CDM Caucus, continues to work with the OPA to provide input into the development and implementation of province-wide programming. Among other activities, the Caucus has played an instrumental role in negotiating master agreements and schedules on behalf of distributors so that these programs can be brought effectively to market. The Caucus is continuing their good work with the OPA to ensure the sustainable LDC-delivery of CDM programming into the future.

Additionally, and on a related note, LDCs have undertaken a visioning exercise this year that envisions the future roles and responsibilities of Ontario's distributors. A key element of that vision positions the LDC of the future as the designer and deliverer of CDM programs that recognize customer needs and unique local situations, and which ultimately contribute to the creation of a sustainable conservation culture in Ontario.

With this objective in mind, electricity distributors remain committed to providing leadership in CDM delivery in order to help meet the goals of the province, the needs of our local communities, and most importantly, the needs of our customers.

Mobilizing Youth to Become a

Summer Camp Energy Days

This summer, Horizon Utilities Corporation helped kids in Hamilton and St. Catharines learn what it means to be part of 'Generation Conservation' through the first summer camp program focused on energy safety and conservation.



Generation Conservation Summer Camp Energy Days was piloted this summer in day camp programs run by the YWCA Hamilton, the Hamilton Wentworth District Catholic School Board and the City of St. Catharines. (Photo courtesy of Horizon Utilities)

Generation Conservation Summer Camp Energy Days, with materials developed and supplied by Horizon Utilities, was piloted in day camp programs run by the YWCA Hamilton, the Hamilton Wentworth District Catholic School Board (HWDCSB) and the City of St. Catharines. Targeted at kids aged five to 12, Generation Conservation Energy Days are jam-packed with fun games, creative activities and hands-on science experiments designed to teach what electricity is, how it works, how to use it safely and how to come up with a plan to conserve.

"It is all about the thrill of scientific discovery," says Sandy Manners, Director of Corporate Communications, Horizon Utilities. "Watching a child assemble an electrical circuit and hearing their cries of delight when they light up the LED bulb captures what the program is all about."

Interactive exercises like 'The Electron Game', 'What Appliance Am I?' and 'I Spy Electrical Danger', help campers retain what they're learning. Participants also build a circuit to light an LED bulb and use a meter to measure the wattage required to power common household appliances. Hands-on concepts are further reinforced through a workbook and craft activities.

Generation Conservation Summer Camp Energy Days complements the 10-lesson Generation Conservation curriculum program sponsored by Horizon Utilities.

Horizon Utilities' Develops Popular 'Generation Conservation' Grade 5 School Curriculum Program in Cooperation with Area District School Boards

In the fall of 2007, Horizon Utilities launched *Generation Conservation*, an exciting new energy conservation program for Grade 5 students attending public and Catholic schools in Hamilton and St. Catharines. Sponsored under Horizon's *kidzpower*™ brand, this unique education program aims to do for energy conservation, what was done for blue box recycling - mobilize youth to become a generation of conservers.

Conservation Generation was first piloted in Durham Region in 2006/07 by CGC Educational Communications in partnership with three area LDCs - Whitby Hydro Electric, Oshawa PUC Networks and Veridian Connections. CGC worked with Horizon Utilities and area school boards in Hamilton and St. Catharines in 2007/2008 to update the program to align with the requirements of the new Science curriculum released last year by the Ministry of Education.

Under *Generation Conservation*, Horizon Utilities is providing teachers' guides and workshops, student workbooks, and classroom materials, free of charge to 195 schools, 400 teachers and 7,500 students and their families.

Each classroom receives a kit of classroom materials for use in conducting the experiments in each module. The program also includes a personal workbook for each child. Children are required to take these workbooks home, perform energy audits, discuss energy with their families and, hopefully, make some changes in their own lives to conserve energy.

"We fully expect that *Generation Conservation* will be instrumental in carrying the conservation message into our communities, and in helping teachers, students, and their families understand what they can do to make a difference," said Max Cananzi, President and CEO.

Energy is an abstract concept that must be made more concrete in order for students and their families to change their behaviours and take action to conserve energy. Ultimately, the only way for conservation to be successful is through effective science education and an increase in science literacy. *Generation Conservation* achieves these goals.

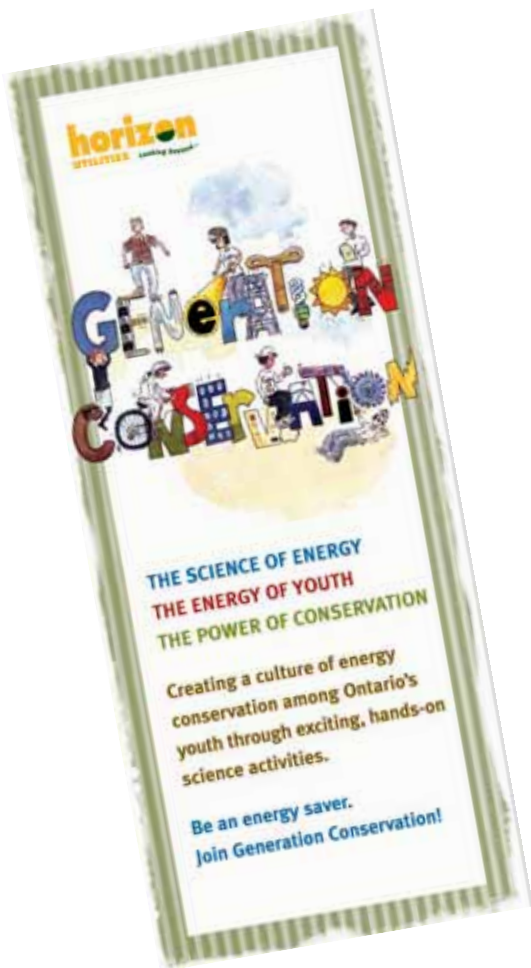
The *Generation Conservation* model is to empower youth to be a member of "Gen C" or to become a "Gen Con Kid." The ten student activities are an initiation process to joining *Generation Conservation*. Three to six months after completing the program, students work together as a class to estimate how much energy they have conserved through



Illustration from the Generation Conservation Workbook section on Appliance Testing - exploring how much energy an appliance really uses.

(Illustrator: Craig Terlson™ Trademark of P3 International, Image courtesy of Horizon Utilities)

Generation of Conservers



their own actions. At this point, upon receipt of student feedback forms, Horizon Utilities will send out a certificate for each student, officially recognizing them as members of *Generation Conservation*.

For information on Generation Conservation, please contact:

Sandy Manners, Director of Corporate Communications, Horizon Utilities Corporation
Telephone: 905-317-4707
E-mail: sandy.manners@horizonutilities.com

Horizon Utilities is one of the largest municipally owned electricity distribution companies in Ontario, providing electricity and related utility services to 233,000 residential and commercial customers in the cities of Hamilton and St. Catharines. ■

Ten Hands-on Classroom Modules

EnerToys

An Introduction to Forms of Energy

Students use wind-up toys to investigate what energy is, how it is stored and how it is transferred.

Turbine Fan

The Applications of Energy

Students conduct hands-on investigations using a pinwheel, a small electric motor, a battery and an LED bulb to explore how a motor powers a fan and, when reversed, how a wind turbine generates electricity.

Energy Explorers

An Examination of Energy Sources

Working in groups, students study different forms of energy sources - hydro, gas, coal, solar, wind, nuclear, etc. They explore the differences between renewable and non-renewable sources.

Appliance Tester

The Amount of Energy Appliances Really Use

Students use a Kill A Watt™ meter to measure the actual amount of electrical energy used by small appliances. They investigate the differences in energy and cost between energy-efficient and traditional appliances.

Energy at Home

The Amount of Energy Used in Households

Students conduct an audit of the energy use in their home. They also keep an energy use diary to chronicle how family members use energy at home. These are used to identify key "energy hogs" and "phantom power" sources that should be the focus of conservation activities.

Energy Savers

An Introduction to Energy Saving Devices

Students use a Kill A Watt™ meter to compare traditional lighting against compact fluorescents and LEDs. The students use a math activity to determine how much money can be

saved using energy-efficient devices and technologies.

Smog City

Connections Between Energy Use and Air Quality

Students use a royalty-free computer simulation game - Smog City - to explore how energy use affects the environment, particularly air quality.

Energy Peaks

Exploring Changing Demands for Energy (Smart Meters)

Students interview their family members to determine the times of day at which they use the most energy in order to determine their families' peak energy use periods. They develop an understanding of the concept of peak energy use - which will prepare them for the introduction of smart meters and time-of-use pricing.

Energy Mix

The Mix of Energy Needed for a City

Students work together in groups as energy companies to develop a mix of energy sources that will provide the electricity required to meet the needs of their community. The students must develop an energy mix that is reliable and as environmentally friendly as possible.

Generation Conservation Action

Students develop their own Personal Energy Plan - citing the personal behaviours they will modify to conserve energy. As well, students develop two 30-second Public Service Announcements that encourage others to conserve energy.

Follow-Up - Earth Day - April

Students estimate the energy they have conserved by executing their Personal Energy Plans over a 2-4 month period. As a class, students are officially certified as members of Generation Conservation. They receive "Gen Con" certificates.



Thunder Bay Hydro Awarded ENERGY STAR® Utility of the Year - Regional

Careful consideration should be given to the energy efficiency of appliances and devices at the time of purchase. There are numerous products available to consumers who choose to purchase ENERGY STAR® qualified appliances and devices. Making informed decisions when purchasing new appliances and electrical equipment is an important first step in realizing energy efficiencies.

This year Thunder Bay Hydro was recognized nationally by the Government of Canada and awarded the 2008 ENERGY STAR® Utility of the Year - Regional, for its efforts in marketing energy-efficient products and for its promotion of ENERGY STAR® appliances to its customers.

"We recognized the power of the ENERGY STAR® branding and have worked hard to ensure that our customers would be able to make full use of this tool," said Tim Wilson, Vice-President of Customer Service and Conservation. "It is a pleasure to see our work recognized at the national level."

Thunder Bay Hydro's application highlighted its presentations in local schools, provision of CFL light bulbs within the community, and local initiatives such as rebates for intelligent parking lot controls and new energy efficient appliances. In the past year, Thunder Bay Hydro has worked hard to ensure that up-to-date education materials are available to their customers in their offices, at community displays and on-line.



Phantom Load Lurks

Thunder Bay Hydro's

Most electricity consumers are not aware of the power drain created by phantom load in everyday household electronics. It is an issue that is gaining prominence at a time when consumers are being encouraged to do what they can to conserve electricity.

By definition a phantom load is electric power used by electrical devices when they are in standby mode or switched off. Any device in the home can be a source of standby or phantom power and consumers are often surprised to hear that something as simple as turning off the TV does not necessarily mean that the power flow has stopped.

Just how much phantom load is being created by electrical devices in a typical home? This was the question that the Conservation and Energy Services staff at Thunder Bay Hydro asked themselves as they considered ways that they could better educate their customers about this unseen power drain. It was clear to staff that many customers were not aware of the electrical loads in their homes and businesses.

In order to better understand the impact of phantom load on a typical household's electricity consumption, Thunder Bay Hydro undertook a study in the spring of 2008 to measure standby or phantom loads on electrical devices in

a 20 year old 1,600 square foot bungalow. The findings provided practical data and examples of phantom loads in an average household.

The study included all electronic devices and electrical equipment being used in the home that was plugged in to electrical outlets. Devices, known as "line loggers," were used to identify the electrical consumption that each of the devices used. All of the electrical devices were then examined to determine standby or phantom load. The results were revealing - in a home that consumed an average of 8500 kWh per year, 1019 kWh could be traced back to standby load loss, or over 10% of the household's total electricity consumption.

Simple measures were employed in the home, and by changing some of the resident's common habits, standby power loss was greatly reduced. These conservation measures are now being widely promoted to Thunder Bay Hydro customers.

For example:

- By turning off the computer and using enabling conservation software (which most personal computers have), customers can save up to 60% of the energy used by the average PC. This can make a difference on electricity bills that amounts to about 10 days worth of electricity annually.
- The most direct way to eliminate a load is to unplug it or turn it off from a wall switch, or power bar. Power bars make it convenient to manipulate multiple devices with a single on/off switch.

Behind Many Household Electronics

Phantom Load Study Uncovers Standby Power Drain in Homes

- Set up an exclusive area for charging batteries. The 'charging station' helps to eliminate devices being left 'powered-up' and allows users to connect all battery charging to a power bar with an on/off switch. A battery drill charger in the test home was using 280 kWh of standby power annually - by putting it on a power bar this power drain was almost completely eliminated.
- Entertainment equipment in 'rec' rooms and other areas of the home that are rarely used should have power bars installed that can be turned off for extended periods.
- Main floor entertainment systems can be configured to allow existing receptacles on

a wall switch to control a portion of the load. Simply turning off the wall switch will turn off the power bar.

- Simply unplug certain electrical devices that might not be used on a daily basis. In the test house, devices such as lawn sprinkler system controls, fax and adding machines, and exercise equipment were simply unplugged when not in use.

With the purchase of a few power bars, the electrical reconfiguration of an entertainment centre and the simple action of unplugging equipment that was not in use, the test house

in the study was able to realize considerable kilowatt hour savings.

Annual electricity lost through phantom load accounted for 1019 kWh of the family's total consumption - after simple conservation measures were employed, the household was able to shave off 883 kWh of its phantom load.

The losses attributed to phantom load were successfully brought down to minimal levels with a minimal amount of effort. ■

Thunder Bay Hydro distributes electricity to over 49,000 customers within the city limits of Thunder Bay via a network of over 1,300 kilometers of overhead and underground power lines.

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Greater Sudbury Hydro Program to Achieve



The Great Refrigerator Roundup removes older, inefficient refrigerators, freezers and window air conditioners, and then fully decommissions them in an environmentally friendly manner - the appliances are picked up from customer homes free of charge.

The *Great Refrigerator Roundup* conservation program was launched in the summer of 2007 by the Ontario Power Authority (OPA) in cooperation with Ontario's electricity distributors. It has proved to be a popular program with residential customers, and was delivered last year by seventy-five utilities in communities across the province. As a result, close to 47,000 inefficient appliances have been removed and de-commissioned, realizing an annual energy savings of 50.5 GWh province-wide.

The *Great Refrigerator Roundup* removes older, inefficient refrigerators, freezers and window air conditioners, and then fully decommissions them in an environmentally friendly manner - the appliances are picked up from customer homes free of charge.

With a little creative thinking and a sound marketing approach, Greater Sudbury Hydro (GSH) has taken a popular province-wide program and combined it with a community-based coupon initiative that encourages consumers not only to get rid of their old fridges, but provides them with an incentive to purchase an ENERGY STAR® high-efficiency appliance replacement. The concurrent discount coupon program is entitled *Waste Not, Watt Not™* and is being run by the utility to complement and enhance the *Great Refrigerator Roundup*.

Once an old refrigerator is collected from a customer, they can exchange their 'pick-up' receipt at the GSH office with discount coupons that can be applied against the purchase of an ENERGY STAR® refrigerator at local participating retailers. Until August 31, 2009, this discount could be combined with a provincial retail sales tax exemption on the purchase of ENERGY STAR® appliances. Afterwards, the bill of sale, listing the make and model number of the ENERGY STAR® refrigerator,



can be returned to the utility's office where it is entered for a chance to win the equivalent value of their purchase (up to a maximum of \$2,500) and which will be applied against future electricity bills. The draw is held in mid-December each year. GSH set out certain goals when the Roundup

Augments Great Refrigerator Roundup Maximum Outreach and Education

program was introduced. They wanted to ensure that residents who participated in the program would understand they were supporting a healthier ecosystem, and that they would not only get rid of their inefficient refrigerators, but would also consider replacing the appliance with nothing less than the most energy efficient models on the market.

The promotion is allowing Greater Sudbury Hydro to hone in on some key 'green' messages, including the serious and damaging effects improper disposal of refrigerators has on the environment:

"Wondering what will happen to that old fridge after the round-up? The decommissioning process is designed to be environmentally

responsible. All CFCs will be captured, mercury from thermostats and PCBs from transformers will be disposed of safely, and nearly all of the remaining material will be completely recycled. Only a shopping bag-sized amount of material finds its way to the landfill. So you'll feel warm all over."

An important aspect of the campaign has been the educational component aimed at ensuring that Sudbury's electricity customers gain a greater understanding of the environmental advantages of disposing of and replacing old refrigerators with high efficiency models.

The combined programs are having a positive impact. In 2007, Greater Sudbury Hydro had 385 inefficient refrigerators removed from

residences across the City. These numbers are expected to increase in 2008 as interest builds and the program garners wider exposure in the community. Although numbers are important, Greater Sudbury Hydro is equally focused on sustaining and deepening cultural change as it relates to electricity conservation and the environment in the City of Sudbury. ■

Greater Sudbury Hydro services the needs of 44,000 customers within the City of Greater Sudbury and within the Municipality of West Nipissing.

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Contact Bart Burman

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Web: www.enerspectrum.com
Email: bart.burman@enerspectrum.com



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Guelph Hydro Takes Leadership Role

ENERGY PLAN ENERGY PLAN ENERGY PLAN ENERGY PLAN ENERGY PLAN ENERGY PLAN ENERGY PLAN ENERGY PLAN ENERGY PLAN

In April of 2007, the City of Guelph, Ontario became one of a select group of municipalities around the world to complete a Community Energy Plan.

The Plan, which was developed in partnership with a Consortium made up of Guelph Hydro Electric Systems Inc (GHESI) and five other major organizations in the city, contains a simple yet compelling vision for the next 25 years:

“Guelph will create a healthy, reliable and sustainable energy future by continually increasing the effectiveness of how we use and manage our energy and water resources.”

Under the Plan, Guelph is one of the first cities of its size to incorporate global and local urban energy management strategies into its daily operations.

For GHESI, with an already established reputation for conservation and demand management initiatives and with a newly-opened headquarters building that includes state-of-the-art energy management features, active involvement in the plan’s development was a must.

“We are committed to a leadership role in municipal conservation and we placed significant value into the development of the plan,” said Art Stokman, President of GHESI.

Mr. Stokman thus assumed the role of co-chair of the Consortium, together with Janet Laird, Director of Environmental Services for the City of Guelph. Other Consortium members were the University of Guelph, the Upper Grand District School Board, the Wellington Catholic District School Board, the Guelph Chamber of Commerce, and Friends of Guelph, a community leadership group.

The planning process began in 2005 and was completed in April 2007 in Mayor Karen Farbridge’s administration.

“The City’s commitment to develop this plan was truly visionary for a community of our size,” said Mayor Farbridge. “It recognized that over half of all the energy used in Canada is for buildings, homes and transportation within cities and that more than 80% of our population lives in urban areas. So, if conservation is going to happen on a large scale, it needs to be driven by municipalities.”



Five key goals established

After extensive public consultation and with significant strategic leadership and advice from Peter Garforth of Garforth International Inc, the Consortium developed several key goals for the plan.

These are that Guelph will:

- Ensure that energy use per capita and resulting greenhouse gas emissions will be less than the current global average.
- Use less energy and water per capita than comparable Canadian cities.
- Have a variety of reliable energy, water and transport services available to all.
- Be the place to invest, supported by its commitment to a sustainable energy future.
- Plan so that all publicly funded investments will visibly contribute to meeting the other four goals.

These goals are based on the premise that Guelph, located just beyond the Greenbelt area established by the Province of Ontario, can anticipate 35 – 40% growth over the next 25 years and will grow from its current population of 115,000 to 180,000 by 2031.

And while the sweep and scope of the Community Energy Plan is broad, it predominantly focuses on energy directly used in the city –

e.g. buildings, industries and vehicles- as these are more easily influenced by municipal policy and operations, combined with strong community action.

For example, recent statistics show that Guelph uses 52.5 megawatt hours of equivalent energy (MWh) from fuels of all types for each inhabitant of the city. If the heat wasted in the production of electricity is factored in, this rises to 73.7 MWh per capita.

“The City’s commitment to develop this plan was truly visionary for a community of our size,”

In addition, Guelph’s average daily water demand is 52,579 cubic meters, or approximately 230-250 litres per day per household. In fact, the City’s single largest electricity cost comes from water pumping.

Ten actions targeted for the future

In support of these goals, the CEP makes several recommendations, of which some critical components are:

- Use stringent new energy efficiency building codes to add 20,000 homes with no net increase in energy needs.
- From 2012, create annual improvement in energy efficiency of about 1% per year, aligning with international best practice by the year 2031.
- Adopt an energy performance labeling project for buildings, in cooperation with a local bank and Natural Resources Canada, to gain about 5% incremental delivered efficiency and act as a pilot project for Canada.
- Meet growing transport requirements while reducing transportation energy use by 25% through vehicle efficiencies, sensitive urban design and creative transportation options.

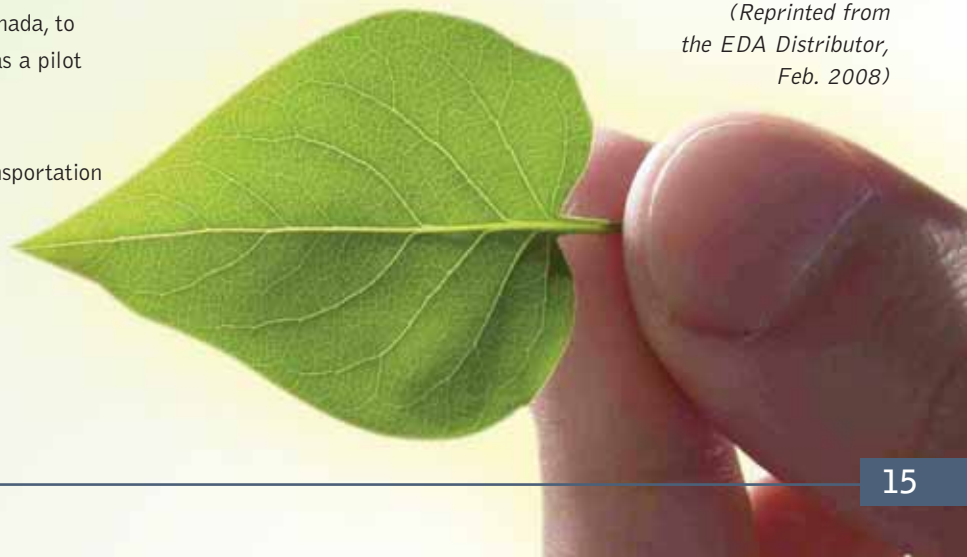
- Within 15 years, ensure that 25% of Guelph’s total energy requirement is competitively resourced from locally created renewable resources.
- By 2031, strive to have 30% of Guelph’s electricity requirements associated with combined heat and power co-generation.
- Reduce demand on the summer peak electricity grid by 40% by 2031.
- Systematically create an integrated energy metering, billing and management network to allow cost effective management of all energy forms.
- Create an environment for quality industrial investment by offering world class tailored energy services, achieving annual investment growth rates higher than the underlying population growth, with no increase required in primary energy sources for the first 15 years of growth.
- Initiate large area, high efficiency scale projects that create early success and create a pool of community expertise.

Significant reductions expected

In summary, in spite of significant population growth, it is planned that overall fuel use required by the City of Guelph will decrease from today’s total of 8,475 GWh to 6,135 GWh by 2031. This will reduce greenhouse gas emissions per capita from the current 16 tonnes to 7 tonnes per year.

“With this plan, Guelph will take its place as one of the most attractive and competitive cities in Ontario and Canada, with a core energy productivity expertise that will be delivered to other markets,” said Art Stokman. “Guelph Hydro Electric Systems Inc. is a very proud partner in the Community Energy Plan.” ■

(Reprinted from the EDA Distributor, Feb. 2008)



Huskie Tools 1st Ambassador

James Robison, Lineman, First Class
New Hampshire Electric Co-op
Bristol, New Hampshire



Being a lineman is tough work, it is a job that mixes bad weather, dangerous situations and long hours. For three decades, Huskie Tools has been creating precision hydraulic compression and cutting products to help linemen throughout the U.S. do their jobs safely and more efficiently while serving the electrical needs of their communities.

After three decades of being in business, you learn a lot about the industry—but this year we are setting out to learn more about the individuals behind our tools. Huskie Tools is proud to announce the our first-ever Huskie Tools Ambassador. Twenty-nine additional ambassadors will be chosen and announced by the end of January to take part in the Huskie Ambassador Program.

As a lineman, first class, at the New Hampshire Electric Co-op, James Robison has gained the respect of his fellow linemen for nearly 20 years and is known for his strong work ethic, commitment to his company and dedication to his community. This is why we chose James as our 1st Ambassador for 2008.

We're proud to be celebrating 30 years of working with linemen like James Robison and the many other industry professionals making a difference every day in communities nationwide.



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Technology as Kingpin

PowerStream Salutes the Energy Conservation Devices that are Helping to Change Conservation Behaviours

Just as a plan is nothing without a strong underlying vision coupled with a steady hand on execution, so is it unfathomable to think of changing energy conservation attitudes and behaviours without the appropriate tools.

Tools that were unavailable just a few short years ago are now mainstream, and with them price points that are making all manner of energy-conservation devices, from bulbs to washing machines, more affordable.

Consider the energy savings made possible through the use of compact fluorescent light bulbs (CFLs). During the 2005-2007 reporting years, PowerStream distributed 20,780 CFLs and took a total of 1,246,800 kilowatt-hours off the local grid as a result.

Equally promising were seasonal LED light string exchange programs. Through community events and coupon promotions, PowerStream customers decreased energy consumption by switching from incandescent bulbs to this type of LED bulb.

Solar power is another example of technology that has become more mainstream in recent years. Consider The Home Depot store located at Highways 7 and 400. Solar power panels capable of generating 20 kilowatts were installed on the roof of the garden centre in summer 2007 - a clear illustration of the company's commitment to energy-saving technology.

PowerStream is also using solar technology, not just to demonstrate its energy-saving potential, but also to conserve energy at the utility's new corporate headquarters in Vaughan. As noted earlier in this report, nine solar photovoltaic towers capable of producing 17 kilowatts of electricity have been installed on the new site, providing the opportunity to save 28,396 kilowatt-hours annually.

Programmable thermostats are another illustration of how far technology has progressed in a relatively short period of time. Five years ago, programmable thermostats were considered a rarity; but today, having become more widely used, programmable thermostats are the foundation for residential and small commercial peak demand reduction programs such as *peaksaver*®. During the 2006-2007 reporting period, 2,055 PowerStream customers signed up to be peak savers and to have Honeywell programmable thermostats installed in their homes, allowing PowerStream to cycle the devices down to save electricity during periods of peak demand.

Smart meters provide one final example of how energy-saving technology is helping to build Ontario's conservation culture. The Province of Ontario has mandated the installation of smart meters for all residential and small business customers in Ontario by December 31, 2010. More than one million units were installed across the province by year-end 2007, with more than 82,000 of them in PowerStream's service territory. ■

(Reprinted with permission from PowerStream's, A Vision for Change - Conservation and Demand Management Report 2005-2007)

PowerStream, the third largest local electricity distribution company in Ontario, delivers power to more than 240,000 residential and business customers in the municipalities of Aurora, Markham, Richmond Hill and Vaughan.



Recognizing Ottawa Businesses for Commitment to Electricity

Ottawa Hospital Receives Hydro Ottawa *Companies for Conservation* Award



Brock Marshall, Director of Engineering and Operations for The Ottawa Hospital is pictured with Hydro Ottawa's Lisa Forsey, Supervisor CDM, after receiving the Companies for Conservation Award. The Ottawa Hospital made a \$17 million investment in energy retrofits and upgrades at its Civic Campus. (Photo courtesy of Hydro Ottawa)

Distributors across Ontario are constantly striving to encourage businesses to make conservation and demand management a part of their corporate culture.

That's why, in the fall of 2007, Hydro Ottawa launched the *Companies for Conservation* monthly award - to recognize businesses that have made outstanding commitments to managing their consumption and conserving electricity.

The energy savings enjoyed by these companies are substantial. Algonquin College, just one of the *Companies for Conservation* recipients, now saves 4,800,000 kWh yearly - enough electricity to power 530 homes for a year.

One company in particular - and as it happens, also an important public institution - stood out as an energy conservation leader this year, setting a precedent for business consumption practices: the Ottawa Hospital. In May of 2008, the hospital received the *Companies for Conservation* award for its remarkable \$17 million investment in energy retrofits and upgrades at its Civic Campus.

The hospital is an excellent working example of how companies can invest in the environment, while decreasing their energy costs. Replacing the original boiler (circa 1924) and a number of chillers, installing a new building automation system, and upgrades to lighting fixtures are now allowing the hospital to save an estimated \$1.2 million or more yearly on electricity.

Other companies added to the *Companies for Conservation* honour roll have been investing in similar innovations. Upgraded building envelopes, energy-efficient lighting, and automated building systems, are just a few of the improvements that are helping Ottawa's corporate fixtures "go green."

Several award recipients have become true demand management leaders, with facilities on-call to reduce energy load during peak demand situations. Other recipients have also won recognition from the Building Owners and Managers Association (BOMA), and demonstrated corporate responsibility

Outstanding Conservation

by taking part in demand response programs. Hydro Ottawa is working with local media to share the details of these individual case studies and spread the conservation message to area companies. In addition to receiving an award plaque, each *Companies for Conservation* honouree is the focus of a quarter-page feature published monthly in the Ottawa Business Journal.

This award is just one of the ways Hydro Ottawa, as an electricity distributor, is encouraging conservation in Ottawa's corporate community. Local companies are also encouraged to take part in the successful *peaksaver®* program, which encourages lower thermostat settings during peak hours, and the Environmental Retrofit Incentive Program (ERIP) for businesses. More information on the utility's conservation programs can be found at www.hydroottawa.com. ■

Companies for Conservation Recipients

Morguard Investments - Temperature and lighting reductions, automated cooling.

Entrust - New LCD screens and innovative lighting/HVAC programs.

Nielson Dairy - New CFLs, LED lamps, and T8 fixtures.

Wal-Mart Canada - High efficiency refrigeration, LED exterior signage and increased roof insulation .

Algonquin College - Upgraded to more efficient equipment, as part of their Energy Performance Contract.

Lansdowne Park - New heat recovery system, efficiency upgrades to lighting and cooling systems.

The Ottawa Westin - New Energy Management Program, lighting efficiency upgrades.

The Royal Canadian Mint - \$8 million towards efficiency retrofits across the building.

Hudson's Bay Company - New colour-coded Energy Conservation Notification system in all stores across Canada.

The University of Ottawa - Improved efficiency of heating and cooling systems across campus.

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Burlington Hydro Inc. teams up with the City of Burlington to Produce Renewable

When it came time to plan for the final phase of the Downtown Waterfront Project, The Brant Street Pier, the City of Burlington and Burlington Hydro teamed together to explore ways to demonstrate their commitment to energy conservation in the community.

The Pier will become a signature destination on Burlington's waterfront upon completion in the fall of 2008. Extending 132 meters over Lake Ontario, it will provide breathtaking views of the lake and Burlington's shoreline.

The pier's environmental design allows free flow of water under the structure permitting natural processes such as the drifting of water to the shore and movement of fish and other marine life. Similarly, its geometry over Lake Ontario made it an ideal candidate for wind-powered generation. The City and Burlington Hydro quickly realized this

opportunity and incorporated a windmill into one of the major design elements; the beacon. This structure is located 89 meters from shore, providing a public lookout 20 meters in diameter and 4 meters above the main pier deck. Twenty two meters above that is the wind turbine, well situated to catch all but the faintest of prevailing winds.

The nearly 7 meter blades of the wind turbine will produce 10 kW of electricity which will be fed back into the grid through the Ontario

Power Authority Renewable Energy Standard Offer Program. This program is ideal for small renewable energy projects. It is designed to strike a balance between the energy available from such projects, the province's renewable energy generation targets and the value of electricity to Ontario ratepayers. A fixed price is paid to the City of Burlington for power supplied and provides stability and certainty against future energy prices. This helps protect ratepayers from fossil-fuel and other fuel price increases while allowing the City to plan this project with confidence.

to the construction of the windmill by allocating funds from its Conservation and Demand Management Program. This program is funded by the Ontario Power Authority and is designed to assist Local Distribution Companies deliver electricity conservation in Ontario.

David Collie, President and Chief Executive Officer of Burlington Hydro states; "We were able to deliver a diverse range of projects through this program which helped the homes and businesses of Burlington reduce their electricity consumption.

Through this we learned that public awareness is a key component to reducing energy use. We felt that the long-term presence of the windmill on Burlington's waterfront would reinforce that message, and, it would create an opportunity to showcase generation through renewable resources".



Artist's rendition of the Brant Street Pier, shore node.

The Brant Street Pier is a component of The Waterfront at Downtown Burlington. Other recently completed projects include an expansion to the Burlington Art Centre and an addition to Discovery Landing, incorporating an observatory, restaurant, water jets and a pond for skating and model boating. Funding for these projects came through the Canada-Ontario Infrastructure Program, Halton Region and the City of Burlington. Burlington Hydro contributed

Similarly, Mayor Cam Jackson of the City of Burlington shares the importance of the project: "The City of Burlington recognizes its responsibility to the environment and is committed to finding new energy efficiencies and investing in renewable sources of energy. This project will be a visible reminder of the importance of everyone's role in energy savings."

Construction on the Pier began in 2007 and is expected to be complete in the fall of 2008.

Energy

Several other environmental factors were taken into account through its design, such as preservation of the natural beach formation to the west of the pier, as well as construction of fish habitat compensation and enhancements in nearby Sheldon's Creek.

Projects funded by the Conservation and Demand Management Programs have resulted in significant environmental and energy related impacts:

- City-wide demand reduction of 1.5 mW,
- Annual consumption reductions of over 6,000 mWh,

- Reduction of CO2 emissions in excess of 4,000 tonnes per year.

If this electricity was produced through coal-fired generation, over 2.8 million tonnes of coal per year could remain "in the ground".

Burlington Hydro and the City of Burlington remain committed to furthering their collective energy conservation efforts. Projects under consideration under the Ontario Power Authority 2008 to 2010 programs include:

- Ongoing conversion of traffic lights to Light Emitting Diode technology,

- Parks illumination systems,
- Further lighting efficiency improvement projects.

Together, the City of Burlington and Burlington Hydro are striving to ensure that future generations are able to enjoy a sustainable future and that energy is used prudently and effectively. ■

Burlington Hydro maintains 32 substations and has almost 1,300 kilometers of low voltage distribution lines throughout the municipality of Burlington. The company serves over 54,500 residential customers, and approximately 5,500 commercial and industrial customers.

(Conceptual drawings courtesy of the City of Burlington)

BREAK THROUGH BARRIERS TO ENERGY CONSERVATION

Renewable energy, conservation and energy efficiency are keys to success in today's business world.

Distributors require specialized expertise for the development of renewable energy, conservation, demand management and energy procurement programs. Clients of Aird & Berlis LLP have relied on the firm's Energy Group for industry knowledge and legal proficiency to help them successfully develop and implement a wide variety of such programs.

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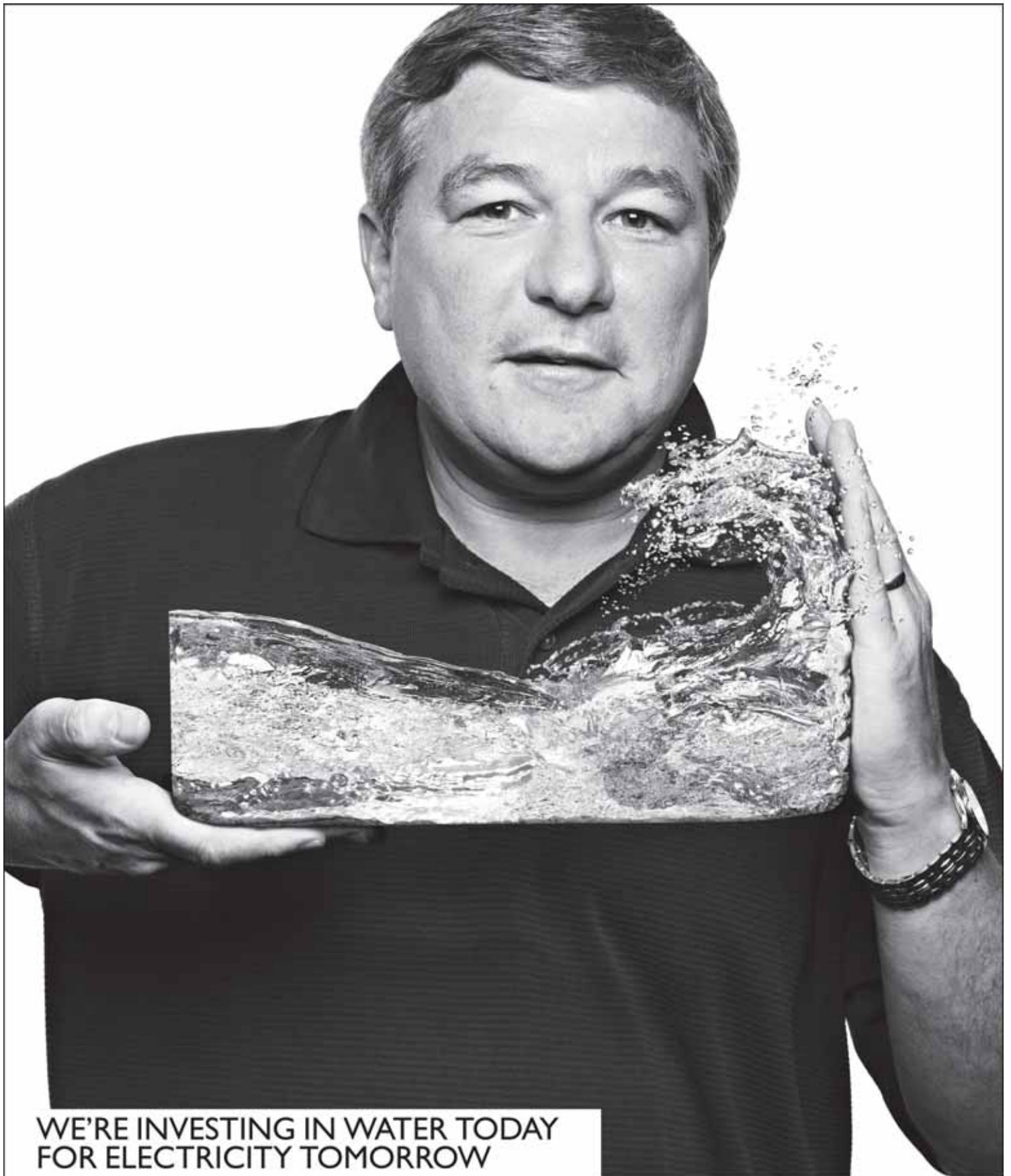
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WE'RE INVESTING IN WATER TODAY FOR ELECTRICITY TOMORROW

Hydroelectricity is dream energy. It's renewable, flexible, efficient and doesn't contribute to smog. So it's not surprising that OPG has put together teams of engineers, technology experts and environmentalists to evaluate new sources of hydroelectric power throughout Northern Ontario. Finding these new sources of power is just one way OPG is investing to meet Ontario's growing need for new, environmentally friendly electricity. *Tony Bennett, Director – Hydroelectric*

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Brantford Power's **Feasibility Assessment for Landfill Gas Generation** Helps Fuel New Renewable Power Project

A growing number of communities in the province, in conjunction with their local distribution companies, are looking at the potential of landfill sites to generate green power. The newest generation project was announced last fall in the City of Brantford, where the decision to move forward with the project was based in large part on the results of a feasibility assessment conducted by Brantford Power.

The feasibility study was a component of the utility's Ontario Energy Board (OEB) approved 2004-2005 Conservation and Demand Management (CDM) Plan and addressed the potential for a generation project fuelled by recovered landfill gas at Brantford's Mohawk Municipal Landfill.

The final report was provided to Brantford Power's holding company Brantford Energy Corporation in 2005. A new subsidiary company, Brantford Generation Inc., is anticipating completion of the \$13 million project in 2009. The system is expected to generate green power for the next 60 to 80 years and has received the full support of the utility's shareholder, the City of Brantford.

Methane is a by-product of decomposing refuse. The project will collect the gas and use it as fuel for reciprocating gas engines that will drive electrical generators. The electricity will be fed into the local distribution grid and purchased by the Ontario Power Authority (OPA) under a Standard Offer Program (SOP) contract. Financing will be provided by the Ontario Infrastructure Projects Corporation, a Crown corporation that helps deliver major infrastructure projects for the Government of Ontario.

Brantford Power's feasibility assessment was an initial catalyst in getting the project off the ground. Completed in 2005, the assessment considers a number of key factors in undertaking a project of this scope, including:

- A review of the estimated quantity of available Landfill Gas (LFG) fuel to understand the LFG resource over the expected life of the project;
- A preliminary design of the LFG collection and conveyance system, including consideration of the site, future landfill use, and the need for the high quality gas needed for the engines;
- A preliminary design of the generation plant that includes details of equipment location on the site;
- Consideration of other fuel sources - in this instance, consideration was given to use of digester gas from a nearby wastewater treatment plant, as well as naturally occurring gas to augment the LFG;
- LFG treatment requirements;
- Consideration of the required approvals and Ministry of Environment permits;
- The estimated electrical output of plant, including consideration of technological innovation in engines, and project revenue;
- Consideration of the electrical connection, protection and metering costs, including connection impact assessments by Brantford Power and Hydro One;
- Estimate capital and ongoing O&M costs of project including the cost of periodic overhaul of the major components;

- Economic sensitivity analysis of income from the generation project.

Initially the plant is expected to have an output of 5.4 megawatts, or enough electricity to power 5,000 homes. The project is expected to help clean up the environment by destroying 160,000 to 250,000 tonnes of methane gas per year.

Brantford Power is very proud of the critical role the utility has played in launching this new renewable source of electricity for the City of Brantford. ■



Brantford Power Inc. is the local distributor of electricity to homes and businesses in the City of Brantford, Ontario.

Veridian Turns to Local Families to Help Promote Summer Sweepstakes



Veridian Connections has put a unique spin on marketing the *Every Kilowatt Counts Summer Sweepstakes* program to their residential customers. The utility has identified four families who wanted to reduce their power use and profiled each household's conservation plans in order to reach a 10 percent reduction in energy use this summer.

The Summer Sweepstakes program, offered in cooperation with the Ontario Power Authority, challenges customers to cut their electricity use by 10 percent between July 1st and August 31st. Registered participants who reach this goal are automatically entered into a draw to win energy efficient prizes, which range from major appliances, like an energy efficient refrigerator or washer/dryer, to mountain bikes and iPods with solar chargers.

By profiling the conservation efforts of ordinary households in Gravenhurst, Belleville, Pickering and Clarington, everyday consumers who wanted to make a difference and cut back on their energy use became the spokespeople for the program and local champions of conservation. The campaign draws from the

grassroots of the community and gives a face to individuals who are making a difference in their neighbourhoods, one family at a time.

Belleville's Lafferty family planned to find energy savings by installing a clothesline and using programmable power bars for their electronic equipment. "We look forward to lowering our energy costs, and helping to reduce the demand for electricity in the province," said Tom Lafferty. "We're confident that we'll achieve our 10% savings target, and challenge all our friends and neighbours to take part as well."

In Gravenhurst, the Lougheads planned to install a new energy efficient geothermal heating and cooling system and use the barbecue and microwave for cooking their summer meals. "We plan to make it a family challenge by encouraging our children to do their part - kids love prizes," said Mr. Loughead.

The four media events that profiled individual families signing up for the Summer Sweepstakes aligned with the release of a direct mail promotion entitled 'Show Your

Mother How Much You Love Her and show your love all summer long by embracing a greener lifestyle.' The three-panel mailer promoted the *Great Refrigerator Roundup* and *peaksaver@* programs, as well as the Summer Sweepstakes.

Veridian's approach was intended to 'touch' customers repeatedly over the course of a few weeks through the use of the direct mailer, earned media through their four events, and some paid advertising in local papers. The campaign garnered six articles in local newspapers and received coverage by CKWS Television. 811 households have signed up for the 2008 Summer Sweepstakes.

Veridian has continued to work with local media to present human interest stories of customers who successfully reduced their energy use to achieve the 10% savings goal during last year's summer conservation promotion, and to show how they have been saving since then. In mid-July, retirees Don and Rhonda Pritchard spoke about their efforts in 2007 to achieve a 10% reduction in power use. In fact, as a result of their conservation measures, the couple successfully reduced their consumption by a whopping 17.5%. ■

Veridian Connections distributes electricity in the Cities of Belleville and Pickering, the Towns of Ajax, Gravenhurst, Port Hope and Uxbridge, and the communities of Bowmanville, Newcastle, Orono, Beaverton, Cannington, Sunderland and Port Perry.

VOLUNTARY BLACKOUT DAY

Woodstock Event Highlight of Summer of CDM Program Promotions

In Woodstock, a major community event was the highlight of a summer of CDM Program promotions. On the afternoon of August 14th, approximately 1,000 people attended a Woodstock Hydro-sponsored Voluntary Blackout Day community barbeque to commemorate the anniversary of the 2003 blackout.

The City of Woodstock originated the "Blackout Day Challenge" in 2005. The City's volunteer Environmental Advisory Committee convinced Woodstock City Council to issue a challenge to other Ontario communities to see how much energy they could save on the blackout anniversary. Woodstock Hydro supported the challenge, and the Independent Electricity System Operator agreed to take measurements that would compare the percentage drop in energy use for various municipalities that took up the challenge.

Now in its third year, Voluntary Blackout Day has become a community event, and a major opportunity for public education in Woodstock. The way it is promoted represents Woodstock Hydro's philosophy in creating awareness around all its CDM programs:

- Develop partnerships within the community - private sector partners, organizations and government. Partners can assist with resources, promotion, and sponsorship.
- Work closely with the local news media, combining news releases with strategically-placed advertising. Make maximum use of personal appearances on local radio and television. Put a high priority on Internet communications.

- Use inexpensive and "low-tech" promotions such as posters and signs.
- Generate community buzz using innovative and inclusive contests and giveaways. If possible, use local celebrities and prominent citizens to support the cause.
- A strong element of consumer education not only ensures coverage in news stories, but also increases the chance of lasting behaviour change. Knowledge empowers consumers.

Local partners for the Voluntary Blackout Day barbeque included the City of Woodstock, the local Environmental Advisory Committee, the Blackout Day Group, Union Gas and several local businesses.

Prior to the barbeque, Woodstock Hydro launched a contest encouraging people to submit their stories from the original blackout of 2003. To promote the contest, the local radio station ran 60-second vignettes of prominent Woodstock citizens relating their own blackout day stories. Advertising was also done in the local newspaper.

Through June and July, Woodstock Hydro partnered with a local business to give away soft ice cream cones in events they billed as "Peak Treat." The giveaway times coincided with traditional peak summer electricity consumption hours, and included an opportunity to sign up for Summer Sweepstakes and Peak Saver.

Events were supported by a summer-long advertising campaign using radio and newspaper. Radio spots included a taped Events were supported by a summer-long advertising campaign using radio and newspaper. Radio spots included a taped energy audit of the city's public library, and newspaper ads included a weekly word jumble, using words originating from the Every Kilowatt Counts web site. The word jumble formed the basis for a contest that gave away energy savings items to participants.

Tying community events to promotions and integrating advertising with the events has created significant community awareness of electricity conservation, and has raised the profile of Woodstock Hydro in the community. ■



Using the Power of the Sun for Heating Water

COLLUS Power Provides a Demonstration of Solar Water Heating System Technology

The use of solar photo voltaic (PV) technology is gaining in popularity for those consumers considering the installation of renewable energy systems however start-up installation costs remain relatively high. Another more affordable, smaller scale option is to harness the power of the sun for heating water. The payback for this type of solar system averages between five and seven years compared to a payback period of 20 years with most solar PV units.

The systems may be used to heat water for a wide variety of uses, including home, business and industrial uses. Heating swimming pools, underfloor heating or energy input for space heating are other examples of how it might be utilized.

To showcase the technology, COLLUS Power in Collingwood has installed a solar water heating system as a demonstration unit at their utility office. The hot water produced by the system is being used to wash the utility's truck fleet.

Two solar panels or collectors have been fitted on the side wall of an outbuilding at the utility to allow people a better view of the display system (optimum installation location would be the roof of a building).

Instead of a flat plate system, which is comprised of an absorber plate with a transparent cover, the demonstration system uses an evacuated tube system. This is comprised of a row of glass tubes that each contain an absorber plate that feeds into a manifold to transport the heated fluid. The transfer system uses this collected heat to heat the water and store it for later use. An evacuated tube system was selected by COLLUS because it works well regardless of temperature, making it effective in both winter and summer.

The interior components have been mounted to supplement the existing water heating system in the building. Three components make up the solar system: a controller unit to monitor the temperature and operate the circulation pump as needed; an additional storage tank which contains a coil heat exchanger; and a tank that feeds the existing water heater with preheated water.

COLLUS Power is working to install live monitoring to place real time information on their website and on a display in the lobby to help their customers gain a better understanding of how solar water heating can work for them.

Renewable sources of energy will be a vital part of Ontario's energy future. Ontario's future also depends on the attitudes and knowledge of today's younger generation. As a result, COLLUS Power has committed to working with local schools to build a Renewable Energy demonstration trailer which will contain both Solar and Wind energy alternatives.

COLLUS Power provides electricity distribution services to approximately 15,000 customers in a territory that encompasses Collingwood, Thornbury, Stayner and Creemore. In 2008, the utility marks 100 years of service to their community. ■



Innisfil's Tempo Plastics

Make the Switch to Energy Efficient Lighting with help from the Electricity Retrofit Incentive Program (ERIP)



Innisfil's Tempo Plastics installed two and four lamp (high efficiency) T5 high output electronic fluorescent fixtures with help from ERIP. (Photo courtesy of Energy Technologies Canada)

For Tempo Plastics Limited of Innisfil, replacing over two hundred inefficient 400 watt metal halide fixtures with two and four lamp (high efficiency) T5 high output electronic fluorescent fixtures has meant big savings on energy costs. This retrofit will result in significant CO2 emissions reductions into the environment.

Tempo Plastics applied and was approved for the Electricity Retrofit Incentive Program (ERIP) which is being delivered through Innisfil Hydro Distribution Systems in cooperation with the Ontario Power Authority (OPA). The utility is one of sixty five participating electricity distribution companies in Ontario that is currently delivering ERIP.

As a result of the lighting retrofit Tempo Plastics has attained a 54 percent reduction in energy consumption and has improved light levels throughout the plant and warehouse areas by at least 200 percent. Additionally, the company's new warehouse is now equipped

with occupancy sensors that turn the aisle lights off when no traffic is detected.

Established in 1970, Tempo Plastics manufactures flexible packaging materials, including plastic bags and sheets, in the Town of Innisfil.

In early June, George Shaparew, President of Innisfil Hydro, presented Tempo Plastics with an ERIP incentive cheque in the amount of \$2,500. An additional \$6000 in incentives is scheduled to arrive in the near future.

"The ERIP incentive greatly assisted in the decision to undertake the lighting retrofit," said Claudio Righetti of Energy Technologies Canada. "Tempo Plastics now benefits each month from the reduction in electricity usage, has improved lighting and productivity in the plant and in addition received the ERIP incentive payment from Innisfil Hydro." Energy Technologies was brought in by Tempo Plastics to assist the company in assessing

energy efficient lighting options, and to provide consulting services and expertise in such areas as environmental impact and return on investment calculations. The ERIP incentive will help to keep Tempo Plastics' return on investment for the project at well under two years.

ERIP focuses on upgrading to efficient lighting, motors, heating ventilation, air conditioning and overall electricity systems. Incentives are available for pre-approved projects that result in measurable reductions in electrical peak demand, based on criteria set out by the OPA. In 2007, ERIP funded projects accounted for an annual savings of 5 GWh - these projects will account for an expected lifetime savings of 24.9 GWh.

Innisfil Hydro is among a group of distributors that have contracted the Green Group to help area businesses with the application and assessment process necessary for program pre-approval. Early this fall, the Green Group will be holding an ERIP promotional and education session at Georgian Downs on behalf of Innisfil Hydro. The session will provide area companies interested in making energy efficient upgrades with program details and information on the application process. ■

Innisfil Hydro Distribution Systems Limited serves approximately 14,300 customers within the municipal boundaries of the Town of Innisfil.

Proper Planning Yields

Getting the right people in the right place at the right time contributes to a smooth

For Ed Chatten, implementation of the government's Smart Metering Initiative (SMI) lends itself to a running analogy. "Think of it as a marathon, not a sprint," said Chatten, Vice-President of Corporate Performance at PowerStream Inc., which serves more than 240,000 residential and business customers

The MDM/R performs the following functions: synchronization with LDCs' customer information and billing systems to receive and process meter data; validation of meter read data from advanced metering control computers; estimation and editing to address invalid or missing data; production of billing quantity data; and provision of web-based and interactive voice response (IVR) services.

with the customer information systems, business processes and IT architectures of some 85 LDCs. For the time being, the MDM/R supports four advanced metering infrastructure (AMI) providers - Trilliant, Elster, Sensus and Tantalus - and work is underway to accommodate other vendors' software packages.

At this time, nearly 48,000 service delivery points (SDPs) - or unique customer locations - are sending live data to the MDM/R, though billing through the MDM/R is happening more cautiously. The infrastructure used to transmit meter data from customers' residences to the MDM/R varies widely. Some AMI systems communicate using wireless wide area networks (WANs), while others use existing telephone lines, Broadband over Power Line (BPL) or Power Line Communications (PLC).

Ground-breaking in its scope and functionality, the MDM/R is a leading-edge project in the world of smart metering. That's not to say implementation is going flawlessly, however. "The company we selected to provide the core software had a number of production operations in place across the U.S., but none of them have pushed the system as far as we have in Ontario," said Bill Limbrick, Vice-President of Information Technology and Infrastructure at the IESO. "The relative immaturity of the AMI space and the need for the software to support the emerging new generation of business processes has led to some unexpected delays."

The development and delivery of the MDM/R, including procurement, technical specifications, standards and integration with the metering infrastructure and customer information systems owned by LDCs are being managed by the Independent Electricity System Operator (IESO).

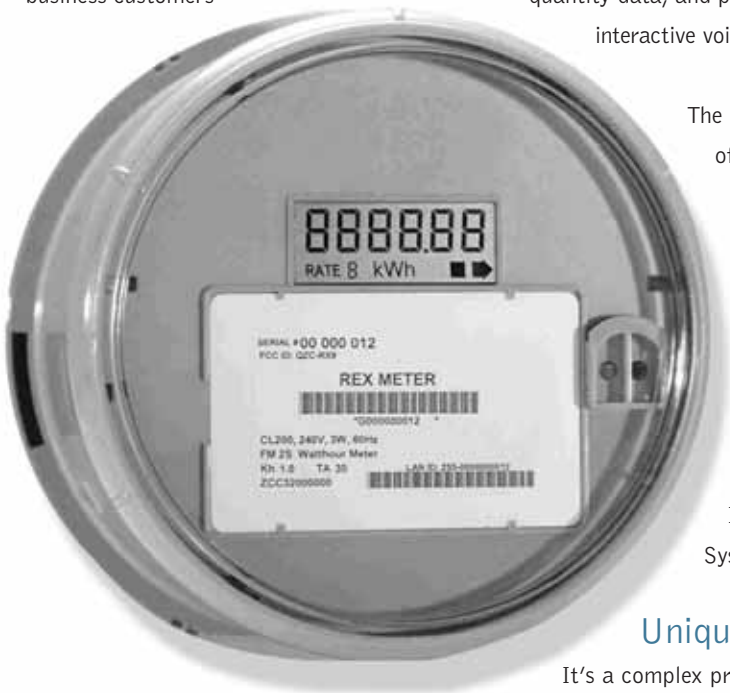
Unique challenges

It's a complex project that has posed challenges at every step of the process. "Ontario is an anomaly in many respects," said Edward Arlitt, Senior Business Analyst in the IESO's Information Technology and Infrastructure group. "Most other jurisdictions with smart metering projects underway have had some structural advantages that simplified the implementation process."

For example, Ontario is unique in having to develop a system that integrates seamlessly

in Aurora, Markham, Richmond Hill and Vaughan. "This represents a fundamental shift to the way we do business, and we're in it for the long haul."

PowerStream is one of the first 13 local distribution companies (LDCs) in the queue to connect with the centralized meter data storage and management system known as the Meter Data Management/Repository (MDM/R).



Project Results

transition to smart meters for Ontario's local utilities.

The MDM/R Registration and Enrolment Process is divided into four stages that define the various activities that are undertaken as an LDC gets closer to going live with the MDM/R. Stage One comprises pre-planning, project plan development, and early execution including selection of an AMI vendor and initial smart meter deployment; Stage Two comprises continued plan execution, including full smart meter deployment, business process reviews, integration of LDC systems with MDM/R design and specifications, and system enhancements; Stage Three comprises system development and LDC internal testing, including initial MDM/R registration and enrolment, certification and testing; and Stage Four comprises final systems testing and cutover to the MDM/R, including system integration testing, qualification testing, and final migration to the MDM/R.

User feedback

The software supporting the MDM/R undergoes frequent modifications to reflect user input, experiences and recommendations with respect to each interface. The next major release will have new functionalities to support things like improved periodic synchronization, billing quantity sum checks, settlement aggregation, enhanced editing capabilities, and new date filters for billing data requests. Rigorous testing is well underway and the new software suite should be released early in 2009 to support the next wave of LDC registrants.

The IESO is also developing a plain-English

"how-to guide" for future registrants. Later this year, the guide will be piloted for clarity, simplicity and effectiveness with a consortium group of 32 small and mid-sized LDCs that have taken a cooperative approach to vendor selection, AMI procurement and project implementation.

Although PowerStream is not among the first wave of LDCs to connect with the MDM/R, their preparations have been underway for months. Advance preparation is absolutely critical, Chatten suggests. "It's essential to have the right people in the right place at the right time," he declared. "At the very outset, we developed a dedicated, cross-functional management team for the project. It comprises representatives from our core functions: corporate communications, customer service, information technology, regulatory affairs and metering."

The multi-disciplinary approach is one favoured by Chatham-Kent Utility Services as well. Along with Newmarket Hydro and Tay Hydro, Milton Hydro, Chatham-Kent is in the final phase of transitioning its operations to the MDM/R's "production environment."

"The early connectivity testing and the certification testing went very smoothly," recalls Tracy Manso, Manager of Business Systems at Chatham-Kent Utility Services. "But when we reached the three-week quality assurance testing, we started to feel overwhelmed. It's an extremely complex process and everything happens very, very quickly."



Building the best team

Until this point, Manso and her colleague Patti Dauphin, Business Systems Analyst, had been working virtually alone on the MDM/R connection process, which obliged them to learn on the fly. "When we started the QA testing, we realized it was too much for two people to handle," Dauphin explains. "In hindsight, we wish we had brought other people on board sooner so we could develop a shared approach to project management."

Soon enough, however, they identified the organizational resources required and initiated

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Delivering Energy Savings, Demand Reduction in Partnership

Ontario's electricity sector is facing one of the most challenging times in its history. The Government of Ontario has set a goal of achieving 6,300 megawatts of savings in peak electricity demand in Ontario by 2025, which includes an interim target of 2,700 MW reduction by 2010, making Ontario's conservation goals among the most ambitious in North America. This equates to the removal of 1 in 5 houses from the grid. Electricity Distributors have stepped up to the challenge by partnering with the Ontario Power Authority to deliver conservation programs and build a culture of conservation.

The OPA has adopted a three-pronged strategy for long-term conservation: procuring conservation resources to meet the 2010 target; building and

enhancing capability in the conservation services sector; and encouraging responsible use of electricity by consumers and businesses.

The OPA procures conservation resources through programs that deliver energy savings, demand reduction and conservation awareness. Some programs are designed to achieve all three outcomes while others focus on one or two. The programs use tools as diverse as product rebates, building retrofits and direct installation services to encourage Ontarians to participate.

"We use a portfolio approach in planning conservation programs," says Paul Shervill, VP of Conservation and Sector Development.

"Individual programs are developed so that the

portfolio as a whole provides a comprehensive, cost-effective and wide-reaching slate of conservation programs for Ontario."

The OPA partnered with LDCs, to provide funding for the delivery of conservation programs across Ontario. A total of 77 LDCs signed up to offer conservation programs in their respective regions, resulting in ninety-one per cent of Ontarians having access to at least one program.

Most LDCs launched 3 residential programs and contributed an estimated total of 91.2 MW of summer peak demand savings and 268 GWh of annual energy savings. Put another way, this amounts to approximately 15 per cent of the reported demand and 37 per cent of reported energy savings of the OPA's entire 2007 conservation portfolio.

All three 2007 programs - *peaksaver®*, *Great Refrigerator Roundup* and *Summer Savings* (with some redesign, and a name change to *Summer Sweepstakes*) are running successfully again this year. In fact, there have been three successful *peaksaver* events, saving an estimated 45 MW each, as of publication date.

And the Energy Retrofit Incentive Program (ERIP) is back this year, in the non-residential sector. ERIP focuses on the areas of lighting, motors, heating, ventilation and air conditioning. These areas cover the majority of and most important electricity upgrades



and Conservation Awareness with LDCs

businesses engage in. By following either the prescriptive or custom tracks, customers can make the most appropriate improvements to serve their needs.

New in 2008 is the Power Savings Blitz, which is the provincial program developed after the successful “No Catch to Conserve” market trial run in select York Region municipalities through PowerStream during 2007. The Power Savings Blitz makes it easy for small commercial customers to make inexpensive but effective changes. The program is offered to a wide range of small businesses, including dry cleaners, beauty salons, convenience stores and medical offices, among others. Although customers may choose to spend some of their own money to conduct a retrofit, the program offers a free assessment and up to \$1,000 to cover equipment upgrades and labour.

The OPA offers custom programs to LDCs, something new in 2008. These programs provide LDCs the opportunity to submit applications to the OPA to fund specific programs that serve local and unique needs.

“The custom initiative is wide open - from residential to institutional to commercial to industrial,” says Shervill. “And that’s by design. We try to have as few constraints as possible. We believe that in many cases the individual LDCs can design specific individual programs that are tailored for their service

area, and best meet their customers’ needs.”

Some conditions apply, of course, but generally the distributor has flexibility in the design and delivery of the custom programs.

OPA programs are ever evolving. As LDCs execute various program elements, they continually gain information about the effectiveness of each program element, and future activities can be refined based upon this experience. Given this “learning by doing” approach, which facilitates a degree of customization that meets the needs of the various communities, how each LDC devises its local program plan may change from year to year. The portfolio of programs will remain relatively constant for 2008 through 2010. However, programs will be refined to encourage greater participation.

Shervill adds that there is a special and unique relationship that adds value to all OPA/LDC programs: the connection that each utility has with its customer base. “These utilities serve their customers, and communicate with their customers. They have a history with the customer, and a trust factor that produces greater customer participation. We are proud of our LDC partnership and look forward to our continued relationship with LDCs as together we build a culture of conservation.” ■

(Submitted by the Ontario Power Authority)



The Power Savings
Blitz makes it
easy for small
commercial
customers to
make inexpensive
but effective
changes.

A lot of hard work, planning and a touch of serendipity

Toronto Hydro's TAKE A LOAD OFF TORONTO campaign coincides with government

On April 18, Toronto Hydro-Electric System Limited (THESL) was at the centre of a news event that made headlines across the country. In Toronto Hydro's lobby at 14 Carlton, which was decorated with clotheslines for the occasion, Ontario Premier Dalton McGuinty announced that the province was lifting the ban on outdoor clotheslines that had been in effect in many Ontario communities.

THESL's Marketing, Communications and Public Affairs (MARCUM) team orchestrated this opportunity to announce the launch of its latest energy conservation program, "TAKE A LOAD OFF TORONTO," which promoted hanging laundry on a clothesline instead of using a dryer. This kicked off an integrated multi-media campaign inviting Toronto residents to visit one of four Toronto retailers to pick up a free retractable clothesline and purchase discounted compact fluorescent bulbs and cold-water laundry detergent.

The news-making event was the culmination of a year of meticulous planning, accompanied by a touch of serendipity. The program was developed, complete with logistics, financial and analytical components associated with achieving kilowatt-hour savings, and submitted to the Ontario Power Authority, which approved it last fall.

Next a "Request for Expressions of Interest" was sent to multiple retailers, asking them how they would staff, market and support the program. Four retailers were chosen for a total of 144 events at The Home Depot, Costco Wholesale, Zellers and Wal-Mart. The events would be held over three weekends beginning April 26 and by May 11, 75,000 clotheslines would be handed out.

The clothesline would be the "hook" the MARCOM team wanted to drive customers to retailers. Once there, campaign representatives had the opportunity to meet with people face-to-face, provide education on the importance of conservation, as well as incentives and information on energy-efficient products.

"In previous years, we had provided compact fluorescent bulbs (CFLs) and LED holiday lights," says Cathy Parry, Director of Marketing, Communications and Public Affairs. "No one had focused on an alternative to using the dryer, which is a big electricity user. Clothes dryers account for 15 per cent of household appliance electricity use. By hanging up just 25 per cent of their laundry on a line, customers can save about \$30, or 225 kilowatt-hours, a year on their electricity bills."

Since there was no ban on outdoor clotheslines in Toronto, the MARCOM team decided that a free retractable clothesline would be the key to weaning Torontonians off their dryers and driving them into stores.

"Our team held a brainstorming session to develop the marketing campaign and theme, and decided on the name 'TAKE A LOAD OFF TORONTO'" said Gillian Earle, Marketing Communications Consultant. The integrated marketing campaign included a flyer mailed to all Toronto households; radio ads; newspapers including Toronto Star, Metro, community and ethnic papers; CP24 TV billboards; and a prominent presence on the Toronto Hydro Web site.

As the logistics of the program were unfolding, the first piece of serendipity occurred. In January, news emerged from Queen's Park that the government was considering lifting the ban on clotheslines throughout Ontario - there was to be a 60-day consultation period, the culmination of which would coincide with the April launch of "TAKE A LOAD OFF TORONTO."

"If the ban in fact was going to be lifted, we thought it would be a great opportunity for us to springboard off this announcement to launch our clothesline giveaway," says Ms. Parry. As it became apparent that the government intended to lift the clothesline ban imminently, the MARCOM team contacted the Minister of Energy's office inviting the Minister to attend the launch of "TAKE A LOAD

created a successful campaign

announcement that ends bans on clotheslines in Ontario

OFF TORONTO." Not only did the Minister agree to attend, the Premier's Office contacted THESL to say Premier Dalton McGuinty wanted to participate as well.

At the event there would be an opportunity for the Premier and Minister to make an announcement. Although it was suspected the announcement would be the lifting of the clothesline ban, this was confirmed only the day before the event launch. "Although our program was planned months previously, it dovetailed perfectly," says Ms. Parry.

The MARCOM team did an electronic and phone blitz, contacting all major and local media outlets and just about everyone responded with interest.

At the event, Clare Copeland, Chairman of the Toronto Hydro Corporation Board, former Energy Minister Phillips and Premier McGuinty spoke, and Toronto Hydro Corporation President and CEO David O'Brien acted as Master of Ceremonies. The media loved it and portrayed the event in words and pictures, which appeared that night and the next day.

The program proved extremely popular with consumers. The first weekend saw a huge public interest with large lineups at participating stores. "We ran out of clotheslines within three hours of starting the giveaway at almost every store," said Gillian. If 75,000 Torontonians use their free clothesline, together they can save enough electricity to supply approximately 2,000 homes." ■

(reprinted with permission from Toronto Hydro's newsletter, Spectrum)

Toronto Hydro-Electric System Limited is one of the largest municipal electric distribution utilities in Canada, delivering electricity to a broadly diversified, economically robust, residential, commercial and industrial customer base in the City of Toronto. The utility serves more than 676,000 customers.



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The advertisement features a white AzTech In-Home Display device with a digital screen showing energy consumption data: 129.53 kWh and \$19.10. The device has three buttons and a small display. The background is dark green with a glowing effect around the device. There are also icons for energy conservation: a lightbulb, a water drop, and a flame.

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Helping Customers Connect Renewable Energy Generation to the Grid



David Suzuki helps to 'switch on' newest renewable installation at local retailer

Renewable Energy of Plum Hollow has installed a net-metered wind turbine at their retail store in Kingston, Ontario. (Photo courtesy of Kingston Hydro)

Kingston Hydro's efforts and their community partnerships are reaping a number of rewards for the company and local customers.



Renowned scientist and broadcaster Dr. David Suzuki and Jim Keech, President and CEO of Kingston Hydro turn on the switch to connect Renewable Energy of Plum Hollow's solar and wind power system to the distribution system. (Photo courtesy of Kingston Hydro)

Since 2007, Kingston Hydro has helped eight of its customers connect renewable energy generation to the grid. One of the more recent projects is a renewable energy installation at Renewable Energy of Plum Hollow's retail store in Kingston. The installation combines a solar photovoltaic system that sells power to the grid under Ontario's Standard Offer Program and a net-metered wind turbine that can offset electricity consumption, provide battery backup power to the business, or export power to the grid.

The official 'switch on' ceremony to connect the new installation to Kingston Hydro's power grid, took place on June 23rd as part of kick-off festivities for the World Wind Energy Conference that was held in Kingston. David Suzuki, renowned scientist and broadcaster, opened the event for Renewable Energy of Plum Hollow by switching on its unique solar and wind power system, connecting it to the Kingston power grid. Officials from Kingston Hydro joined a number of dignitaries at the high profile event.

The company's growing number of generator connections includes renewable energy systems that range in size from 0.4 to 30 kW, including a 15 MW embedded Natural Gas Cogeneration plant.

"Kingston Hydro and Utilities Kingston support investment in conservation and green energy infrastructure within our community," says Jim Keech, President and CEO, Kingston Hydro. "Locally generated electricity reduces our reliance on non-renewable fuels, helps keep energy dollars in the local economy, and can increase the efficiency of our local distribution system."

Kingston Hydro's efforts and their community partnerships are reaping a number of rewards for the company and local customers.

- The Queen's Natural Gas Cogeneration facility has lowered the emissions intensity of the local electricity supply mix compared to the provincial average and ensures that a larger proportion of Kingston's energy needs are supplied locally. The arrangement includes an incentive for the generator to help the utility shave its distribution system peak.
- Kingston Hydro's partnership with St. Lawrence College in the development of a distributed generation course is helping to ensure the safety of linepersons when making DG connections.

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The **Greenest** Streetlighting

Town of Cobourg is First off the Blocks to Make Conversion to High Efficiency Induction

Earlier this spring, the Town of Cobourg announced its partnership with Cobourg Networks Inc. (an affiliate of Lakefront Utilities Inc.) and energy efficient lighting manufacturer, Luxlite Inc., to undertake the complete conversion of the town's streetlighting system. The existing system is being replaced by induction lighting, a new highly efficient technology.

The 100,000 hour life expectancy of the new lamp replaces the 24,000 hour expectancy of the current high pressure sodium lamps. Maintenance costs associated with the new system are expected to be virtually eliminated for twenty years and of course, there will be significant energy cost benefits.

Lighting system in conjunction with Luxlite Inc.," said Cobourg Mayor Peter Delanty. "This will make Cobourg the first community in North America to convert entirely to this new energy efficient induction street lighting technology. The new street lights use half the energy of the town's existing high pressure sodium lighting system".

Although the estimated cost of the induction lighting conversion will be approximately \$1.25 million, it is expected that the decision will translate into significant savings for the municipality with lower maintenance costs and savings on energy bills. The Town has estimated that over the 20-year life of the

new streetlighting system, taxpayers will save in excess of \$1.3 million. Just as importantly, the environmentally friendly lights will reduce carbon dioxide emissions by over 500 tonnes per year.

There are certain grants and incentives available to

municipalities from the Provincial Government through the Ministry of Natural Resources and Ontario Ministry of Energy Municipal Eco Challenge Fund (MECF). The application is for the showcase/demonstration of new technology.

Tests conducted by Lakefront Utility Services Inc. found that induction lights use half the energy of high pressure sodium streetlights and produce a brighter, safer and longer lasting lighting system for the community. High pressure sodium converts a third of its electrical energy into light with the balance lost to heat output, whereas induction lighting converts two-thirds of the electrical energy into light with only a third as waste heat.

The new street lights use half the energy . . .

"The new induction lights have a long life span because there are no contacts to wear out as the lights are energized by induction," said Bruce Craig, President of Lakefront Utility Services Inc.

Light depreciation is also less of a factor. The high pressure sodium system has a 53% depreciation of light output over a lamp life of 6 years, while induction lighting has only 15% depreciation over a lamp life of 20 years. This translates into brighter, safer and longer lasting lighting for the community.

The quality of light produced by these new fixtures is a superior white light over the orange high pressure sodium lamps. The existing high pressure sodium lighting system has a colour rendition index of 21, while

"Cobourg is about to take a giant step toward energy conservation leadership by changing the lighting in all 2,395 of the town's street lights from the energy eating high pressure sodium lights to a new energy saving Induction



Town in North America

Streetlighting System

induction lights have a colour rendition index of 84. This means that objects are more identifiable and produce an effect that is similar to daytime lighting conditions.

Mayor Delanty says, "This is the right time for this project, as it not only addresses the energy conservation issues that are critical to the Province's Energy Plan, but also speaks to the Federal Government's Green Initiatives for Canada," said Mayor Delanty. "I look forward to other municipalities joining us in celebrating our achievements

and taking a leadership role in Ontario and Canada to create a better and greener future for our children." ■

Town of Coburg Holdings Inc. is the parent company to the Lakefront Group of Companies consisting of: Lakefront Utility Services Inc., Lakefront Generation Inc., Coburg Networks Inc., and Lakefront Utilities Inc., the local distribution company serving over 9,000 customers in the Town of Coburg and former Village of Colborne.



KINGSTON HYDRO:

Helping Customers Connect Renewable Energy Generation to the Grid

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- The company was the first distributor in Ontario to develop an isolation scheme for micro-generators that does not require an external disconnect switch and is compliant with all relevant regulation, saving generators hundreds of dollars and reducing ongoing utility costs.
- The administration of a 'Connection Cost Rebate Program', returning half of connection costs up to \$1,000 to generators, ended this April and was part of Kingston Hydro's CDM funding approved by the Ontario Energy Board. The program incited interested parties to move forward with DG projects. Distributed

energy efforts include the execution of eight connection agreements for solar and wind power facilities ranging in size from 0.4 kW to 30kW. Kingston Hydro's connections include a net metered solar PV system, 6 Standard Offer Program solar PV systems, and one net metered wind power generator with battery backup.

- Kingston Hydro has also initiated the Solar Domestic Water Heater Rental program, partially funded as a pilot deployment program by Natural Resources Canada. The goal of the program is to install 250 units in homes by 2010, at no upfront cost to the customer and a \$50/month or less rental fee.

"We have been working hard to make the connection of distributed generators as simple as possible to encourage more renewable generation in our local supply mix," says Mr. Keech. Looking to the future, Hydro Kingston's goal is to continue to work with the City of Kingston and its community partners to position themselves as a leading centre for sustainable energy in the province. ■

Kingston Hydro provides distribution services to approximately 27,000 customers in the City of Kingston. Kingston Hydro and Utilities Kingston are wholly owned by the City of Kingston.

Proper Planning Yields Project Results

Getting the right people in the right place at the right time contributes to a smooth transition to smart meters for Ontario's local utilities.

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daily meetings of a seven-person MDM/R working group. One of their first tasks was the development of an Operating Policies and Procedures document, which covers areas like data flow, reports and responsibilities, business processes and report specifications.

With a major section neatly headed "What Am I Responsible For?" this document is updated regularly to include daily checklists for employees in different positions, including billing, information technology and technical services. By ensuring every employee with MDM/R responsibilities adheres to a formal, documented process, the document plays a critical part in Chatham-Kent's overall change management strategy.

With her strong IT background, Dauphin also created an automated system that permits upwards of 40 daily reports generated by the MDM/R to be forwarded seamlessly to the individuals responsible for reviewing and approving each data set.

Effective communication techniques

Although LDCs across the province are focused on tasks like the selection of AMI vendors, technology is just one side of the smart metering story. Chatten, Manso and Dauphin agree that the customer side poses different - but comparable - challenges. "With a massive change like this, it's impossible to over-communicate with people," Chatten stated. "The approach we've taken is to communicate early and communicate often."

At the core of PowerStream's multi-faceted communication effort is a unique smart meter welcome package featuring a DVD and a 16-page Q&A booklet that answers most of the questions customers have about smart meters, TOU rates and conservation opportunities.

Like PowerStream, Chatham-Kent has taken a broad and comprehensive approach to communicating with its affected residential and small business customers. In addition to holding an open house and creating a customer-centred web portal, the utility has undertaken radio, television and print advertising as well as direct outreach to vulnerable groups such as seniors and low-income customers.

When asked to describe the IESO staff with whom she has contact, Manso unhesitatingly describes them as "awesome," pointing specifically to their accessibility after hours and their willingness to use LDC feedback to make technical improvements to the MDM/R and its associated processes.

The IESO has equally high praise for its LDC partners. "We really appreciate the initiative and cooperation shown by the first LDCs in the system," Arlitt said. "They have been extremely helpful in validating our approach, refining our processes, and reviewing our documentation. The hard work by the early adopters will be a great benefit to LDCs that are still in the early stages of implementation." ■

(Submitted by the IESO)



EDA President & CEO
C.C. (Charlie) Macaluso

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