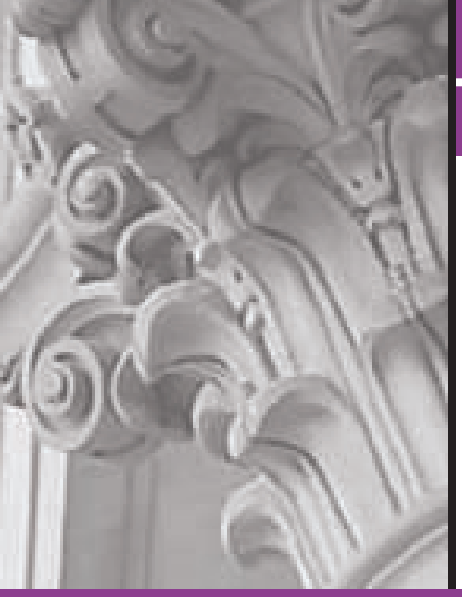

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Hydro One offers free electricity monitors to 30,000 customers

Hydro One has come up with a compelling solution to directly involve residential customers in energy management and conservation. Called the PowerCost Monitor, Hydro One leaders hope this small device holds great promise for educating, empowering and motivating customers to lower their energy consumption.

Hydro One's faith in the PowerCost Monitor was demonstrated in July 2006, when the utility rolled out a free monitor offer to the first 30,000 qualified northern Ontario residents. Four months into the program, 17,000 customers have taken the utility up on its offer and Hydro One will continue the campaign until all 30,000 monitors are distributed in the northern service territory.

The free monitor offer is for customers in Hydro One's northern Ontario province, where the utility had previously conducted a successful demonstration pilot of the technology. The pilot ran from mid-2004 to early 2006. Results of the pilot showed that real-time electricity monitors helped homeowners reduce their consumption of electricity by up to 15%, with an average reduction of 6.5%.

This electricity monitor brings energy management into the home and into reality for customers who may not have given a lot of thought to their energy consumption patterns. For those who are already involved in managing their energy usage, the PowerCost Monitor delivers real-time data that will help them further lower their bills. The device also may serve as a catalyst that draws more customers into the utility's conservation and demand management programs.

Developed by Blue Line Innovations in St. John's, Newfoundland, the electricity monitor is normally placed on a countertop inside the home, where it displays the customer's real-time electricity usage, both in kilowatt hours and dollars and cents.

Company profile

Hydro One Networks owns and operates Ontario's 28,600-kilometer high-voltage transmission network that delivers electricity to large industrial customers and municipal utilities, and a 122,000 kilometer low-voltage distribution system that serves about 1.3 million end-use customers and smaller municipal utilities in the province. Launched in May 2000, Hydro One is a holding company with four operating subsidiaries. It emerged from the restructuring of Ontario Hydro. The company employs approximately 4,000 full-time staff across the province. Hydro One is wholly owned by the Province of Ontario.

Monitor displays dollars, kilowatt hours

The PowerCost Monitor consists of two pieces. One piece is a sensor unit the homeowner connects to the outside electric meter. The sensor transmits radio signals to the second piece, a small digital display unit that may be placed anywhere inside the home. The display unit shows the customer how

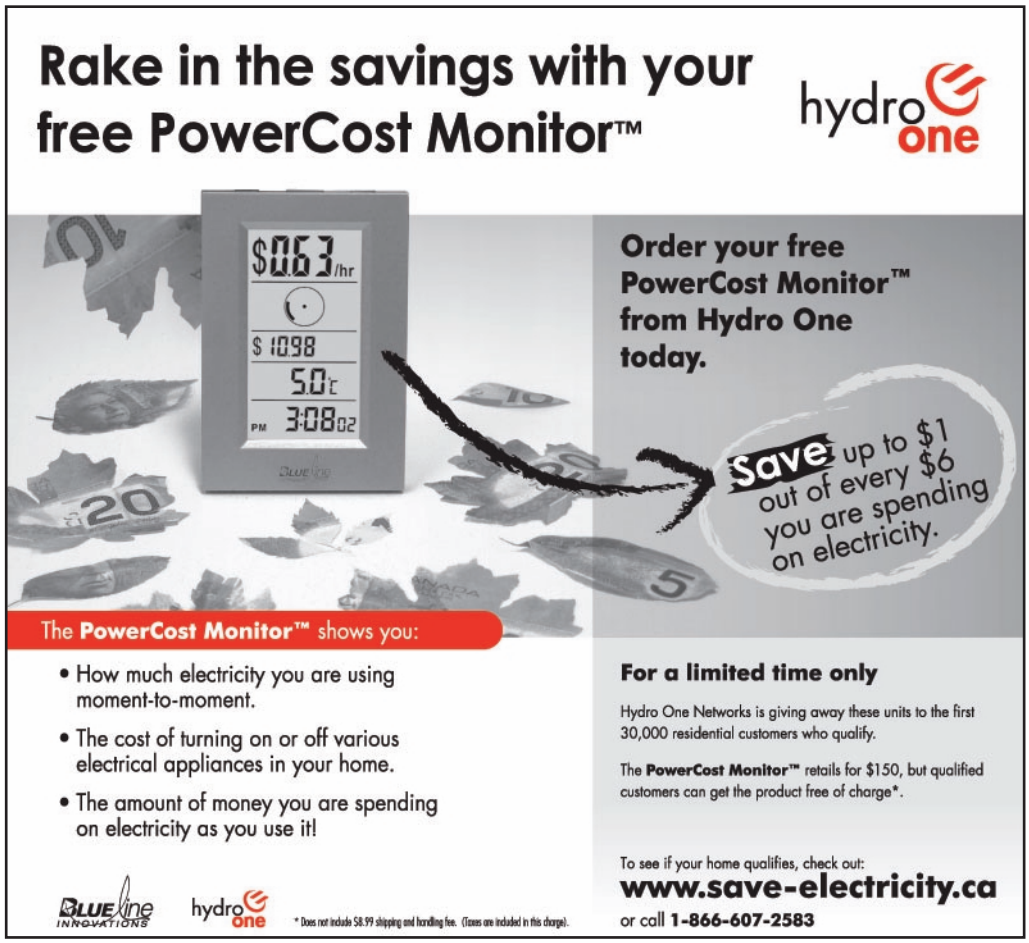
much money he is spending on electricity from moment to moment and how much he has spent cumulatively from the time the device was reset.

The display unit is programmed with the customer's rate structure. The customer can choose to view consumption in kilowatt hours or he can flip a switch and view the cumulative money he is spending. "If you have it set to the energy side of the meter, you'll see in kilowatt hours what your consumption is. You'll see the numbers changing before your eyes and that rate of change will reflect your rate of electricity consumption. If you flip it over to the dollar and cents display, it will show you an ever-increasing number in terms of dollars and cents, and that's reflective of the cost you're incurring for your electricity consumption," explains David Curtis, Hydro One director of business transformation.

Customers can use the device according to their own needs and ingenuity. For instance, they can measure the total amount of electricity that is consumed at any given time and they can turn appliances on and off to see the effect they are having on the consumption and cost. "It's also a great educational tool for the kids in the family," says Curtis.

"Our goal is to help our customers save electricity," he adds. Some of the utility's efforts in this area include ongoing campaigns promoting LED lights and programmable thermostats. As part of the recent LED campaign, the utility advised customers to switch from traditional incandescent to LED decorative lights during the holiday season.

The monitor's manufacturer handled advertising and promotions, as well as the shipping of the PowerCost Monitors. This ad appeared in local newspapers. Source: Hydro One



The PowerCost Monitor promotion supports other energy savings programs by affecting customer awareness of the value of electricity. "It gives the customer real-time ability to see what their power consumption is. All of these other initiatives are ways that they can reduce their overall consumption, but with the PowerCost monitor they can actually see what they're consuming and the rate of their [electricity use]," says Curtis.

18-month pilot reveals energy savings

In 2003, prior to the pilot, Hydro One had researched various conservation and demand management solutions. During that effort, the research team discovered Blue Line Innovations, a company that offers conservation and demand-side management solutions to the energy industry.

In 2004, the choice was made to test this product with 500 customers selected from five communities served by Hydro One. "We followed them for roughly two-and-a-half years," Curtis relates. "The pilot ended this year. It involved very precise tracking, because we monitored what the actual electricity consumption was over that period. We provided them with the device … and they could take action in terms of reducing their electricity consumption on their own. We had monitored their consumption prior to having these devices in their homes, so we knew what they historically had consumed. We then we monitored their electricity usage as they were using this product."

> **"Not only did customers act on what the monitor was telling them, but they acted on it over a sustained period of time."**

The length of the study was an important element, Curtis adds. "We wanted to be sure of our results, and we wanted to see whether or not these results were sustained. For the first month or two, it's the new toy in the house and you do pay attention to it. You try conscientiously to adjust your electricity use. But what happens seven months or a year later?"

Customers reduced electricity usage by an average 6.5% over the life of the pilot. "That to us was a very important result. Not only did customers act on what the monitor was telling them, but they acted on it over a sustained period of time."

Because of the positive results, Hydro One decided to roll a program out to a larger segment of the customer population. "We picked the customers in the northern part of the province and … we're rolling it out to 30,000 customers. We're providing the monitor free of charge if the customer pays the shipping and handling cost of $8.99."

Blue Line promotes product

Beyond bill inserts, the current PowerCost Monitor campaign requires little promotional effort from the utility, which is investing about $500,000 in the program.

"We worked out the arrangements with our supplier, Blue Line, the company that manufactures and also markets the product. We've agreed that we would send out notifications in customer bills of this offer, and we have done that. Blue Line has done more of the proactive advertising, such as television and radio interviews or community events to advertise the PowerCost Monitor," Curtis reports.

Customers who don't live in the promotion area may purchase the monitors directly from Blue Line. One reason the utility is limiting the promotion to the northern area of the province relates to technical concerns. The monitor will not operate with the newer, government-mandated smart meters that Hydro One

will be installing initially in other areas of Ontario. Customers in the northern part of the province eventually will receive these meters as well.

Curtis adds that Blue Line has been busy developing a monitoring product for electronic metering. "We're testing out the prototype and if we're happy with it I think we'll give some consideration to a larger and broader rollout of this product," he says. "The decision will have to be made as to whether an in-home display like the PowerCost Monitor should be included as part of this meter rollout. That hasn't been decided."

Monitor would be beneficial to anyone

Challenges of the electricity monitoring program are generally limited to acceptability of the product by a segment the customer base. For example, Hydro One has done some polling related to conservation. "There is a group of customers that tell us they're doing as much as they possibly can to conserve. They feel that they're doing a good job of it. So we're not expecting that part of our customer population to be overly receptive to an in-home monitor," says Curtis.

But Curtis feels the PowerCost Monitor would be beneficial to anyone, including those who are already conservation-savvy. "If everybody is going to get a smart meter, maybe everyone should get an in-home monitor as well. Then they can see what their consumption is costing them and they can modify their behavior to try to reduce their consumption."

The current program was designed to ensure that anyone receiving a monitor is likely to get value from having it. "People have to actually call and order this monitor, so we feel we're drawing from that segment of our customer population that feels there is something more they can do in terms of saving electricity. They see this as a way of helping them do that."

Results of the campaign have been very positive. "We started this campaign in July in terms of the rollout and we're almost at 17,000 monitors in terms of the ordering. This is more than halfway to our target," notes Curtis. "The target that we chose, 30,000 customers, is about 25% of the customers that we service in the northern part of Ontario, so it's a very ambitious program, and we're very encouraged by our results so far."

Hydro One will reassess this initiative following completion of the rollout. "I'm hopeful that we will end up deciding that we should have a broader rollout across the whole province," Curtis says.

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