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Protecting Against the Peaks

A Case Study in Energy Management

When it comes to sustainability, Paul Martin makes no bones about being an idealist. "By reducing our overall energy consumption, we're doing something that benefits all of Ontario," says Martin, Director of Business Operations in the Facilities Management Department at Western University in London. "It doesn't have to be complicated. In fact, small changes made by many people can deliver some of greatest impacts."

An accountant by trade, Martin is spearheading a renewed push for sustainable operations at the university, which has more than 27,000 full-time students and 4,000 faculty and staff.

But energy conservation is more than just a management priority. Western's student body is actively engaged in reducing their energy usage. Witness their conservation challenge known as "Rez Powers Down." For two weeks in late November 2012, students in residences experimented with simple conservation efforts: turning down the thermostat, unplugging appliances at

night, washing clothes in cold water, turning off unnecessary lights, taking shorter showers and using the stairs instead of the building elevators.

Progress was monitored and recorded using a real-time energy dashboard that showed current usage and historical data at each of the 93 buildings on the campus.

By the end of the challenge period, students living in London Hall had cut their consumption by 19.3 per cent, or nearly 18,000 kilowatt-hours (kWh) of electricity. University-wide, reductions reached 38,710 kWh and saved more than $4,000.

While the experiment is over, the dashboard remains. It is posted on Western's website to reinforce the school's commitment to transparent reporting. It is also an essential tool in Martin's efforts to contain energy costs. It will soon be expanded to cover water and steam consumption.

With a summertime peak demand of 24 megawatts (MW) and a winter peak of 15 MW, the university is one of the largest energy users in the region. Martin's long-term goal is to get the summer peak down to about 18 MW.

Not surprisingly, Western's conservation efforts extend far beyond the Rez Challenge. For example, Martin has taken to using the IESO's Peaktracker as well as weather forecasts for six communities across Ontario to mitigate against the costs associated with the Global Adjustment. When the forecast for all six communities calls for temperatures in excess of 30 degrees Celsius, Martin prepares to curtail electricity usage at buildings across the nearly 500-hectare campus.

The chillers that power the university's air conditioning systems consume substantial amounts of energy. On what are expected to be peak days, Martin cycles the chillers and fans in 30-minute intervals to reduce electricity usage while ensuring the comfort and safety of students and staff. Curtailments normally begin around 2:00 p.m., with a return to normal operations by 6:00 p.m. Temperature changes typically go unnoticed as most occupants have left for the day by the time the buildings heat up.

By successfully curbing energy consumption on summer's hottest days, Martin figures the university saved nearly $1,000,000 in 2012.

Bruce Campbell appointed IESO's New President and CEO

Bruce Campbell has been appointed President and Chief Executive Officer of the IESO as of May 1.

Mr. Campbell has over 30 years of regulatory and executive experience in the energy sector. In his most recent position as Vice President – Resource Integration, Mr. Campbell oversaw preparations in power system operations for the integration of an anticipated 10,700 MW of wind and solar generation in the province by 2018. Recruited from a successful legal career, where he regularly appeared before the Ontario Energy Board and other tribunals, Mr. Campbell joined the IESO as Vice President, Regulatory and Legal Affairs in 2000.

Mr. Campbell also serves as a Vice-Chair of the Board of Directors and member of the Audit Committee of the Northeast Power Coordinating Council, Inc., responsible for establishing and enforcing reliability standards for the power industry across eastern Canada and the northeastern United States. A member of the Law Society of Upper Canada, Mr. Campbell also holds the Institute of Corporate Directors' ICD.D (Certified Director) designation.

Share your thoughts!

Understanding the price of electricity means knowing how electricity prices are determined and how you are billed. For a commercial or industrial customer who spends more than $2000 per month, this knowledge is essential to managing their electricity costs effectively.

In an effort to better inform and educate commercial and industrial electricity consumers in Ontario, the IESO is conducting a survey to understand the information needs of these consumers.

This survey will provide important insight, ultimately helping shape the delivery of electricity price information on the IESO web site and within our market education program.

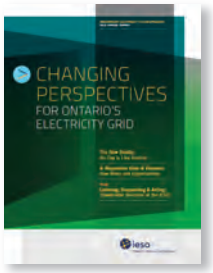
Please take this opportunity to educate us on your information needs. The survey can be found at www.ieso.ca/research. At the end of the survey you can enter a draw for a Nexus 7 tablet.

First Annual Stakeholder Summit a Success

Attendees of the first IESO Stakeholder Summit heard a range of perspectives on issues and opportunities facing Ontario's electricity system.

The summit generated significant interest, selling out within weeks of being announced. The objective was to form a solid foundation for upcoming discussions with stakeholders. Stakeholders shared thoughts on emerging technologies and the potential of demand response in Ontario's electricity market. Participants said they enjoyed hearing perspectives from neighbouring jurisdictions and from leaders in the sector. The overwhelming success of this year's summit ensures a second annual stakeholder summit. Read a full summary of the 2013 stakeholder summit at www.ieso.ca/summit.report.

IESO 2012 Annual Report



The IESO's recently-released 2012 annual report highlights the efforts of the IESO and industry partners to build a more sustainable and diverse power system.

The report features the IESO's corporate and financial performance over the past year, but also takes a broader look at the future needs of Ontario's electricity sector. It introduces a variety of perspectives on issues critical to the future operability of the system, including the importance of developing new sources of flexibility to provide greater system efficiency.

The report is available at www.ieso.ca/annualreport and in hard copy. To receive a printed copy or to provide your thoughts on the report, please contact communications@ieso.ca.

The IESO is a not-for-profit organization that manages the reliability of Ontario's power system and operates the wholesale electricity market where the hourly price of electricity is set. Through its market education program, the IESO works with consumers paying the market price by creating educational material on the market and providing opportunities for consumers to learn about the electricity sector and how they can better manage electricity costs. For more information on the IESO's market education program, please contact:

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