

# The Electricity EXCHANGE

## FAST FACTS ABOUT THE MARKET

January – March 2005

**1** Weighted average HOEP based on the Ontario demand: **\$56.62/MWh**

**2** Total Imports: **2.11 TWh**

**3** Total Exports: **2.48 TWh**

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*The Electricity Exchange* is mailed to market participants on a quarterly basis and is also available on the IESO Web site at: [www.ieso.ca/imoweb/news/electricityExchange.asp](http://www.ieso.ca/imoweb/news/electricityExchange.asp)

We welcome your comments, feedback or suggestions. Please send us an email at: [electricity.exchange@ieso.ca](mailto:electricity.exchange@ieso.ca)

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**Independent Electricity System Operator**

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## TRANSITION TO IESO

**Our vision:** *"To uphold the trust placed in us by developing innovative, efficient and effective solutions that deliver a reliable supply of electricity to Ontarians today and for the future."*

The passage of the *Electricity Restructuring Act, 2004* (Bill 100) brought with it a number of changes to Ontario's power system, including our name – *Independent Electricity System Operator* (IESO). Although the transition to the IESO meant business as usual, a number of important changes had to be implemented to make the changeover as smooth as possible.

From an IT perspective, the name change required a strong infrastructure to support the transition – from the new web site ([www.ieso.ca](http://www.ieso.ca)), to the updating of more than 1000 web pages, to changes in procedures, forms and hundreds of other documents. Although the four-month timeline did not allow for a complete transition of all applications containing the IESO name, the majority of the work was completed by the January 10 rollout date.

Bill 100 also imposed a number of changes to the settlements process including the development of new procedures and forms, the implementation of tools to calculate the regulated generation adjustment, the development of 18 new charge types, and calculation adjustments for the new fixed rate. Joseph Freire, the IESO's Senior Engineer – Settlements, notes that his biggest challenge was coordinating the timing of information.

"The quick timing of the legislative process meant that we needed to work very closely with the government to ensure we got the necessary information needed to develop the new processes."

The governance structure at the IESO was also impacted with the passage of Bill 100. The new Minister-appointed Board of Directors will move from stakeholder to independent representation and its size will decrease from 17 to 11 members. The new Board is expected to convene this spring.

While the IESO will continue to monitor and evaluate the efficiency and competitiveness of the wholesale electricity market, Bill 100 transferred the responsibility of the Market Surveillance Panel (MSP) to the Ontario Energy Board (OEB) on January 1, 2005. Although the MSP will now report to the OEB, market monitoring and direct support of the MSP's activities will continue to be provided by the IESO's Market Assessment Unit (MAU).

"We will continue to build on our expertise and experience in order to meet the province's electricity needs," said Dave Goulding, President and CEO. "In doing so, our core values of respect, integrity, customer focus, performance, capability and adaptability will guide us forward."

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## 2004 PARTICIPANT SURVEY RESULTS NOW IN

The IESO continues to receive high service quality ratings and sustain a strong image with its customers, with some opportunities for improvement, according to the third annual survey of market participants. Of the 75 executives interviewed, 74% described the IESO as having a “positive and established relationship with market participants,” with two-thirds awarding the relationship a score of 8 (based on a 10-point scale). While directing a reliable supply of electricity and effectively handling settlements receive the highest service ratings, participants remain convinced that the IESO “is a key part of delivering a reliable market and being a key source of information and support to market players.”

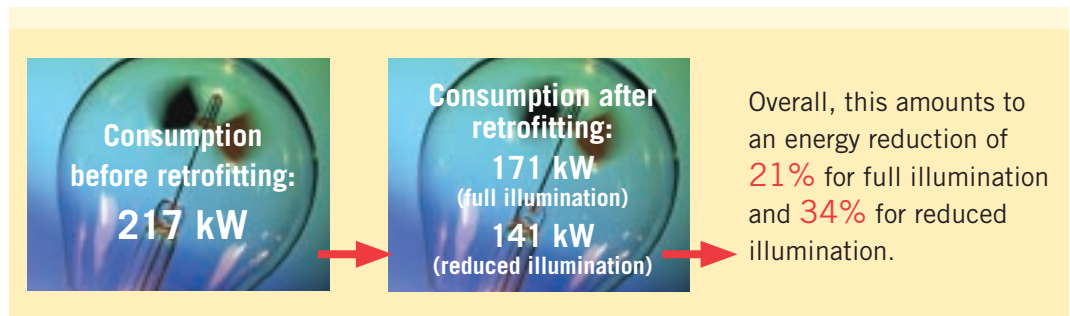
The survey did highlight some areas for improvement, most notably in the committee process where the report recommends that the IESO consider approaches to attracting small and medium sized participants and those beyond southern Ontario. Prior to committing resources to the committee process, participants further expressed their concern about understanding how the process affects decisions taken.

As part of the IESO’s ongoing commitment to improving customer service, survey results will be assessed and actions will be taken over the coming months that build directly on survey input from clients. The plan is to continue these surveys over the coming years in an effort to gauge participant evaluations of the IESO’s performance in operating the wholesale electricity market in Ontario.

## DOING OUR PART TO MANAGE DEMAND

The IESO’s recent retrofit and re-lamping of the fluorescent lighting at its Mississauga facility is already showing results.

A total of 3200 lighting fixtures were retrofitted with high power factor electronic ballasts and re-lamped with high efficiency T-8 lamps. Diffuser lenses were also replaced with ones more efficient in transmitting light. The lighting improvements were so effective that about one half of all office lights could be switched off and still achieve illumination levels that exceeded those before the upgrade.



Based on an average blended rate of \$0.090/kWh – including energy plus all other associated charges – the projected annual savings will range between \$24,000 – \$40,000. These savings take into account a usage factor of 0.7 where office lighting is switched off outside of normal working hours. By maintaining office lighting at a comfortable level, a payback period on the project is expected within five years.

## MARKET ADVISORY COUNCIL MEETING OFFERS PERSPECTIVES ON BILL 100

The Market Advisory Council convened for its ninth meeting on February 23 at the Toronto Congress Centre. The first meeting since the passing of Bill 100 focused much of its discussion on the implications of the *Electricity Restructuring Act*.

Speaking on behalf of the Ministry of Energy, Rick Jennings, Director of the Energy Supply and Competition Branch, outlined recent government developments including the new regulations, the role of the Ontario Power Authority (OPA), conservation initiatives, the Ontario Power Generation (OPG) price regulation, as well as updates on the renewable and clean energy RFPs. Jennings said prices under the new market structure will “better reflect the true cost of producing electricity” and “protect Ontario’s medium and large businesses by ensuring prices are stable and competitive.” Moreover, Jennings stressed that “all consumers would benefit from the increased stability that this blended supply mix would provide.”

Jan Carr, CEO of the OPA, offered a number of perspectives of the OPA on the consequences of Bill 100. Carr described the four core functions of the new entity as being generation development, conservation, power system planning and retail services. While “potential for overlap and conflict” may exist between the IESO, OPA and Ontario Energy Board (OEB), Carr said there are also “opportunities to rationalize and improve the processes through which they implement government policy and represent the public interest.”

Full transcripts of these presentations, as well as other information from the meeting, are available on the web at: [www.ieso.ca/imoweb/consult/mktAdvisoryCouncil\\_meetings.asp](http://www.ieso.ca/imoweb/consult/mktAdvisoryCouncil_meetings.asp)

## TRANSITIONAL DEMAND RESPONSE PROGRAM SPARKS INNOVATIVE INITIATIVES

Participants in the Transitional Demand Response Program (TDRP) are demonstrating some innovative and aggressive initiatives in developing price responsive programs.

At Milton Hydro, *The Energy Drill Program* (modelled after fire drills), trains and designates "Energy Marshals" responsible for reducing demand during periods of constrained supply, high prices and smog alerts. Pilots will include institutional, educational and commercial buildings with peak demands greater than 50 kW enabling facilities to effectively respond manually in near real-time to reduce electricity consumption. Don Thorne, President and CEO of Milton Hydro, notes that "what is particularly unique about our project, is the development and application of *The Energy Drill Program* to demand response and its potential to create cultural change in organizations and individuals. Although it may be expected that the business community will be market price driven, demand response activities are also consistent with corporate commitments regarding health, safety and the environment."

Peterborough Utilities Inc. has proposed a program designed to reduce energy consumption through the 12,000 electric water heaters it currently owns and maintains. These water heaters have been equipped with radio signal load-controllers allowing for the on/off switching of water heaters. If utilized to its full potential, demand response from this initiative would be equivalent to the load consumed by about 500 residential homes. Peterborough Utilities will be monitoring this program for demand response with in-house software designed to operate specifically in the TDRP environment.

Since the program's activation last October, the TDRP has attracted 11 successful participants with 17 projects resulting in over 56 MWs of potential demand response. The TDRP aims to "kick start" demand responsiveness in Ontario by overcoming barriers that are currently

preventing some customers from being responsive to wholesale market price signals. Through this process, participants (wholesale and retail) are compensated for reducing demand based on pre-dispatch price signals. Program participants intending to reduce demand notify the IESO prior to the start of an eligible trading hour. An eligible trading hour is when the three-hour ahead pre-dispatch price reaches \$120/MWh. Between October 18, 2004 (date of first round acceptance letters sent to



participants) and March 15, 2005, there were 142 instances of pre-dispatch price equaling or exceeding \$120/MWh.

**For those interested in joining the TDRP, information on the program's eligibility criteria, application and settlements procedures is available on the web at: [www.ieso.ca/imoweb/consult/econDRPP.asp](http://www.ieso.ca/imoweb/consult/econDRPP.asp)**

### "SMARTER" METERS PILOTED BY CHATHAM-KENT HYDRO

Chatham-Kent Hydro has been receiving high-level praises for its smart meter initiative. Using hybrid wireless technology to connect its customers to its computer network, Chatham-Kent has already connected 1,000 of its 30,000 customers.

Instead of undergoing the costly process of replacing all existing meters, this concept retrofits existing hardware by attaching transmitters to outside meters. Rather than using one-way communications - offered by phone lines or cellular systems - this technology uses two-way, real-time, wireless networks that transfer meter data to the utility's transmission tower.

The largest pilot project of its kind in North America, it's also credited as being extremely cost effective. Rather than the \$300-\$400 price tag for a new smart meter, each retrofit falls in the range of \$150 - an anticipated cost savings of over \$5 million. Coupled with the cost of dismantling the \$2 million worth of meters the utility currently



owns, the savings are even more impressive. Chatham-Kent President Dave Kenney feels this program is the "most cost effective way of using our meter population, rather than throwing them away." Factoring in the savings of preserving the old meters, Kenney adds, "dramatically reduces the actual cost of implementation."

In the future, customers will benefit from the program as they will be able to track and monitor their energy consumption through an internet connection. With the 2010 deadline for smart meter implementation only five years away, Chatham-Kent Hydro felt it was important to get out of the gate early to meet the Provincial Smart meter target.

**To find out more about Chatham-Kent's smart meter initiative, visit their web site at: [www.ckenergy.com](http://www.ckenergy.com)**

## IMPROVING THE IESO'S STAKEHOLDER ENGAGEMENT PROCESS

A workshop will be held on April 20 to review a Working Paper on the IESO's stakeholder engagement process.

The Working Paper, which represents a set of draft stakeholder engagement principles and frameworks, responds to a number of key factors including:

- The needs and experiences of stakeholders;
- The needs and experiences of IESO staff; and
- Changes introduced by Bill 100, particularly the move to a fully independent Board of Directors and the creation of the Ontario Power Authority (OPA).

The draft principles and frameworks were developed based on input and feedback provided over the past two years by stakeholders during the IESO's 2003 and 2004 stakeholder engagement review, and through input received at the February 23 meeting of the Market Advisory Council. At this meeting, the Council solicited member's initial views to responses to four discussion questions, including:

- 1 What key considerations need to be taken into account in designing any new stakeholder involvement processes/

mechanisms for the IESO?

- 2 What key principles (i.e. responsibilities of both the IESO and participants) should guide stakeholder involvement in IESO decision making?

- 3 What could be done to simplify, streamline, and bring more clarity to:

- decision making with stakeholdering processes, and
- decision making within the IESO in general?

- 4 What could be done to assure stakeholders that their views and opinions are accurately communicated and considered prior to decisions being made?

Feedback from this process was used to develop the Working Paper that has now been posted on the web for comment:

[www.ieso.ca/imoweb/pubs/consult/ser/ser\\_paper\\_20050317.pdf](http://www.ieso.ca/imoweb/pubs/consult/ser/ser_paper_20050317.pdf)

To find out more about the stakeholdering engagement process and how you can provide input, please visit: [www.ieso.ca/imoweb/consult/consult.asp](http://www.ieso.ca/imoweb/consult/consult.asp)

## FIRST WORKSHOP ON RENEWABLE RFPs WELL RECEIVED BY NEW MARKET PARTICIPANTS

In an effort to assist new market participants with various aspects of the RFP process for renewable energy, the IESO is sponsoring a number of workshops that will take place throughout 2005.

Aimed at assisting new participants in understanding their requirements on entering the IESO-administered market, Ansar Gafur, Vice President of External Relations for PowerGen Corporation noted that the February 22 workshop "was extremely helpful in explaining the issues relating to participant authorization and the registration of facilities and meters. The session also provided a comprehensive operational overview of the IESO-Controlled Grid (ICG)."

The Ontario Ministry of Energy initiated the Renewable Energy Supply RFP as a means of taking immediate action to meet its

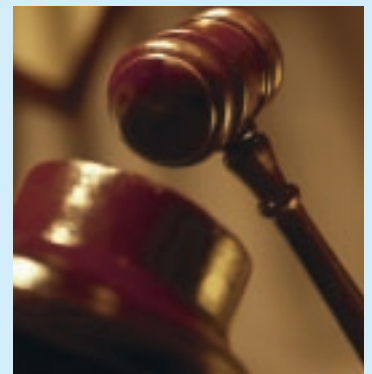
target of generating five per cent (1,350 MW) of Ontario's total capacity from renewable sources by 2007, and 10 per cent (2,700 MW) by 2010. In support of this initiative, ten new projects to provide 395 MW of clean, renewable energy were announced by the Ontario government on November 24, 2004.

Additional RFP workshops will be sponsored by the IESO throughout the year. For information on how to participate, please contact the IESO Market Relations department at 1-888-448-7777, or click on the RFP web page at: [www.ieso.ca/imoweb/news/rfp\\_workshops.asp](http://www.ieso.ca/imoweb/news/rfp_workshops.asp)

## OEB HEARING UPDATE

The IESO filed its proposed fees, revenue requirements and expenditures for its 2005 fiscal year with the Ontario Energy Board (OEB) for review last November. In response to the filing, the OEB established a formal regulatory proceeding in the matter which included a Technical and Settlement Conference as well as an interrogatory and oral hearing process.

A list of nine "Agreed to and Contested Issues" was presented at an Issues Conference held on January 5, 2005. A Settlement Conference was held between the IESO and intervenors on March 1 and 2 during which an agreement was reached on six of these nine issues. No agreement was reached on the following three issues: IESO Stakeholder Consultation, Benchmarking, and the Market Evolution Program 2005 Expenditure and Revenue Requirement. The resulting settlement agreement proposal filed by the IESO was approved by the OEB on March 18. Hearings in this proceeding to address the three unsettled issues began on March 29 and may continue, if required, on April 4 and beyond. Once the hearings conclude, it is expected the OEB will issue its decision with reasons in April.



## THE BOTTOM LINE ON ENERGY MANAGEMENT

The IESO has partnered with local distribution companies (LDCs) to produce a brochure for businesses paying the wholesale electricity price to demonstrate how they can take control of their energy costs. Entitled *The Bottom Line on Energy Management: Making Ontario's Electricity Market Work for your Business*, this brochure draws on the experiences of Unilever Canada, Confederation Freezers, Oxford Properties and the Region of Peel to show how interval meters, conservation, retail contracts and load shifting are helping these businesses better manage their electricity costs.

The recent passage of Bill 100 offers businesses a combination of regulated, contract and competitive market prices for electricity, allowing them the flexibility to better manage their electricity consumption. By understanding how the market works, these four businesses show how electricity expenses are more effectively controlled, similar to other operating expenses.

**This brochure is available on the Energy Management page of the IESO web site ([www.ieso.ca/imoweb/businessIndustry/bi\\_energy\\_management.asp](http://www.ieso.ca/imoweb/businessIndustry/bi_energy_management.asp)). Hard copies of the brochure are also available.**



## NIAGARA FALLS HYDRO RECEIVES BUSINESS ACHIEVEMENT AWARD

Niagara Falls Hydro has been recognized for its success as a company and for its contributions to the community.

The utility received the Outstanding Business Achievement Award from the Niagara Falls Chamber of Commerce at the Chamber's annual awards night held February 24 at the Niagara Fallsview Casino resort. Premier Dalton McGuinty was the key-note speaker.

"To be recognized for our efforts is a real honour," said Niagara Falls Hydro President Brian Wilkie. "The Board and staff have been very committed, through both policy and action, to ensuring that Niagara Falls Hydro is an active participant in the growth and vitality of our community."

The City of Niagara Falls has been experiencing strong economic growth in recent years and Niagara Falls Hydro has responded by investing millions of dollars into the local electricity distribution infrastructure. The investment includes a new eight million dollar



From Left to Right: Kim Craitor, Niagara Falls MPP – Tom Garlock, Chair, Niagara Falls Chamber of Commerce – Dalton McGuinty, Premier of Ontario – Janie Palmer, Chair, Niagara Falls Hydro – Suzanne Wilson, Director of Finance, Niagara Falls Hydro – Brian Wilkie, President, Niagara Falls Hydro

Municipal Transformer Station.

As a company, Niagara Falls Hydro has been a generous contributor or sponsor to many community events, organizations and services, including the Greater Niagara General Hospital Foundation, the annual Winter Festival of Lights, the United Way and the local Heritage Trail. Employees have been very generous with their time and donations to countless charity events.

"Brian Wilkie has provided strong leadership. He and his staff deliver on the philosophy that good business practices and commitment to the community should always work hand-in-hand," said Janie Palmer, Chair of Niagara Falls Hydro.

Niagara Falls Hydro serves approximately 33,000 customers.

## DISPATCHABLES WORKSHOP SPARKS POSITIVE FEEDBACK

Market participants who recently became dispatchable took part in a workshop to share their stories and experiences on the program's effectiveness to date.

Presentations at the workshop were also made by the IESO on dispatchable load operating guidelines (clarifying obligations of dispatchable loads relating to the submission of dispatch data), communications deviations from dispatch, the impact of \$2000 bids, and the consequences of outages on the program.

To date, eight market participants (with 11 sites), have joined the program totaling 499 MW of dispatchable load. Five other participants are currently in the process of becoming dispatchable, with an additional 18 earmarked for possible future program entry.

A load can choose to register as dispatchable within the IESO-administered markets if it can adjust some portion of its consumption based on 5-minute dispatch. While requiring some additional upfront costs and ongoing effort, dispatchability

has the advantage of allowing a market participant to:

- much more effectively respond to price
- receive congestion management settlement credit (CMSC) payments when appropriate
- receive an ongoing revenue stream by participating in the operating reserve market

Once the decision has been made to become dispatchable, the entire process normally takes five to nine months to complete. Most of this time is required to install circuits and equipment needed for telemetry, to set up the dispatch workstation and to update the IESO real-time database and system model.

**For more information on becoming dispatchable, please contact the IESO Market Relations department at 1-888-448-7777.**

## EVENTS CALENDAR

April – June 2005

More information on these and other events is available at: [www.ieso.ca/imoweb/events/calendar.asp](http://www.ieso.ca/imoweb/events/calendar.asp)

All events are in Toronto unless otherwise noted.

04/07

Market Pricing Working Group Meeting

04/15

Wholesale Consumer and LDC Deadline for 18-Month Outlook Submission

04/19

Forecasts and Assessments Sub-Committee Meeting

04/20

Market Operations Standing Committee Meeting

05/01

Generator and Transmitter Deadline for 18-Month Outlook Submissions

05/05

Outage Planning Sub-Committee Meeting

05/10

Revenue Metering Sub-Committee Meeting

05/13

Market Pricing Working Group Meeting

06/02

Outage Planning Sub-Committee Meeting

06/08

Information Technology Standing Committee Meeting

06/15

Market Advisory Council Meeting

06/24

Forecasts and Assessments Sub-Committee Meeting

## EXERCISE “SOUTHERN EXPOSURE” TO TEST ONTARIO’S ELECTRICITY EMERGENCY RESPONSE CAPABILITY

With the support of Ontario's Emergency Preparedness Task Force (EPTF), the IESO has finalized plans to stage a major emergency response exercise this fall, with preparation for this exercise preceded by two local tabletop drill sessions in June.

Scheduled for Tuesday, October 25, this large-scale emergency exercise will simulate a power system emergency and test coordinated response by the IESO and market participants across the entire Southern Ontario region (everything south of the French River). All participants will perform the exercise from their on-site locations.

“Southern Exposure will be our most

ambitious exercise to date in terms of its scope and number of participants,” said Stuart Brindley, the IESO’s Manager of Emergency Preparedness. “In the past, we’ve included one third of Ontario in such exercises on a rotating basis, but this year, the exercise scope will include all of southern Ontario. After evaluating the exercise, our plans are to extend it into northern Ontario in 2006.”



### PRE-EXERCISE PREPARATION – RELIABILITY TRAINING AND TABLETOP DRILLS

Emergency exercise participants are encouraged to attend one of the following preparatory sessions scheduled below. An invitation will be extended to northern Ontario participants to attend as observers (space permitting).

| Location | Date               | Session                                                                                                                                                              |
|----------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| London   | Tuesday, May 31    | Reliability training – An interactive session to help participants prepare for the exercise and better understand how their actions can impact Ontario's reliability |
|          | Wednesday, June 1  | Overview of Exercise 2005, tabletop drill, feedback                                                                                                                  |
| Cobourg  | Tuesday, June 14   | Reliability training – An interactive session to help participants prepare for the exercise and better understand how their actions can impact Ontario's reliability |
|          | Wednesday, June 15 | Overview of Exercise 2005, tabletop drill, feedback                                                                                                                  |

More information on the program is available by contacting Steve Cooper, the IESO's exercise and tabletop drill coordinator at: [steve.cooper@ieso.ca](mailto:steve.cooper@ieso.ca) or 905.855.6159