

THE ELECTRICITY exchange



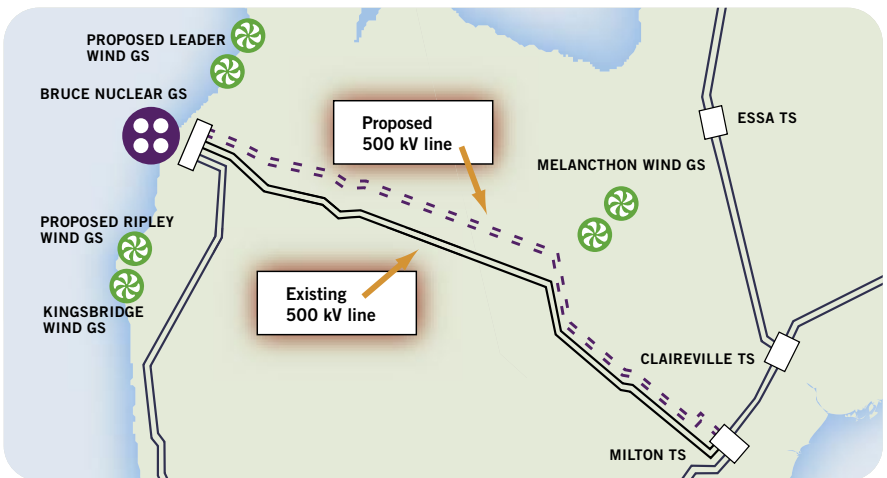
Power to Ontario.
On Demand.

Proposed Bruce to Milton 500 Kilovolt Line Enhances Long-Term Supply

Line identified as a major priority in the IESO's latest Ontario Reliability Outlook

In a significant move to improve the long-term supply of electricity, Hydro One is seeking the necessary approvals to construct a new double-circuit 500-kilovolt (kV) transmission line between the Bruce Power facility and Hydro One's Milton switching station. The proposed 180-kilometre line is targeted to be in-service by December 2011 and would cost about \$630 million.

The line is the preferred solution recommended by the Ontario Power Authority and was identified as a major priority by the IESO in its Ontario Reliability Outlook issued in March, 2007. Derek Cowbourne, Chief Operating Officer of the IESO said Ontario needs the new line "as soon as possible" to accommodate the planned capacity expansion of 1,500 megawatts (MW) at the Bruce nuclear station and the potential 1000 MW of renewable generation in the area. "The proposed line will definitely contribute to improved resource



adequacy for Ontario," explained Cowbourne.

Under the proposal, Hydro One would widen the existing 500 kV corridor and construct the new line along the widened right-of-way. This avoids the need to establish a completely new right-of-way. The project is subject to both the Environmental Assessment (EA) Act and Ontario Energy Board (OEB)

approvals which Hydro One will pursue simultaneously to meet the planned service date for the line.

The proposed Bruce to Milton line is not the only transmission enhancement under consideration. In northeastern Ontario, Hydro One has proposed short-term enhancements to allow planned generation there to be delivered to southern Ontario.

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BRUCE TO MILTON LINE*Continued from page 1*

Hydro One is also working with TransEnergie to build a 1,250 megawatt (MW) Quebec interconnection to be in-service by 2010." Ontario benefits from its interconnections from both an economic and reliability perspective," said Cowbourn. "Ontario imports power when prices are less expensive in neighbouring jurisdictions and exports surplus capacity which helps generators recover their fixed costs. When supply is tight, we are able to attract imports to help maintain reliability in the province. Increasing our ability to access Quebec's hydroelectric resources is clearly a good thing."

The Ontario Reliability Outlook reports that future supply in Ontario will also be enhanced by about 7,000 MW of new or refurbished generation that is contracted to come into service by 2011 including:

- 1,500 MW from Bruce A refurbishment;
- 1,740 MW of new gas-fired generation in western GTA;
- 850 MW of new wind generation and
- 538 MW in downtown Toronto.

The IESO has also introduced a number of new mechanisms to address reliability issues. After listening to a broad range of operational and stakeholder concerns following the summer of 2005, the IESO introduced the Day Ahead Commitment Process, the Emergency Load Reduction Program and intertie failure settlement charges.

Despite positive developments in Ontario's generating and transmission situation, the IESO continues to be concerned about the length of current approval processes as Ontario's electricity sector embarks on the biggest infrastructure change in its history.

Many of the proposed projects will require approvals by multiple regulatory

regimes and by multiple departments within each regime. The approval processes are often open-ended with indefinite schedules and deadlines for completion. As well, these processes were never designed to deal with the large volume of planning and projects that will be needed over the next decade.

Despite the challenges facing the electricity sector in Ontario, Cowbourn shares the IESO's cautious optimism. "Looking back to our previous reliability report last June, it's clear that we have made progress by working together to improve system reliability and supply," said Cowbourn. "But it's also clear that we've still got to a lot work to do over the next ten years to build on the early progress. I'm confident that we will succeed."

The full Ontario Reliability Outlook March, 2007 can be found on the IESO's website at: www.ieso.ca/oro. •

What Was Said...

"Markets are essentially barometers, measuring the relative strengths and weaknesses of the electricity system and providing an efficient way to value the alternatives available to consumers and policy makers."

Gordon van Welie, President and CEO of ISO New England addresses the FERC Conference on Competition, February 27.

"There is a profound sense of urgency about climate change that can only be sustained by giving everyone something to do. The simple act of changing a light bulb takes people from awareness to action; people become part of the solution."

Stuart Hickox, Executive Director of Project Porchlight.

Reductions in Prudential Requirements Approved

Major savings expected for LDCs, large industrials & retailers

Through a series of recommendations approved by its Board of Directors, the IESO is now able to begin the implementation of a major reduction in the amount of collateral requirements that most market participants who consume electricity must provide to guard against payment default levies.

Collectively, the recommendations will reduce the collateral requirements of market participants by about \$200 million or 25 per cent. This will mean annual net savings of some \$900,000 as a result of reduced banking costs for market participants.

Prudentials make an important contribution to the financial well-being of market participants. The IESO is a market like any exchange. "Our role is to collect money from electricity consumers to reimburse the generators that produce it. If one market participant can't pay, the others have to cover the outstanding charges. Prudentials help protect against that" explained Rosanne Martine, Assistant Treasurer of the IESO.

As part of its continuing efforts to reduce the financial burden on many market participants, the IESO is recommending that:

- Local Distribution Companies continue to be treated differently;
- the price used to calculate prudential requirements be reviewed annually;
- the price be based on the Ontario Energy Board's Regulated Price Plan;
- an increase in unsecured credit be permitted and
- reductions for participants with good payment histories are maintained.

The market rules to implement the recommendations will now be reviewed by the IESO's Technical Panel during the summer. •

Ontario's Electricity Market Reaches Five Year Mark

System reliability and market transparency highlight successes of first five years

Ontario's wholesale electricity market opened in 2002 to deliver reliable electricity at a competitively determined price, on demand. Five years later Ontario's electricity consumers and suppliers, including over 300 market participants, have weathered record temperatures, peak demand periods, and a province-wide blackout while striving to enhance reliability, introduce more supply, and ensure fair prices.

May 1, 2007 marked the fifth anniversary of the opening of Ontario's wholesale electricity market – five years worth of hard work and creativity from everyone involved in the province's electricity sector.

"The opening of Ontario's electricity market was an exciting and challenging time for everyone – especially during the first year of operation," recalled IESO President and CEO Paul Murphy.

The market brings transparency to the electricity sector and demonstrates its benefit by ensuring reliable operations, efficient consumption and dispatch decisions, while reflecting the true cost of producing electricity.

"Ontario's electricity market has made significant gains and the IESO remains confident that building on the current market is the most effective means to a reliable, efficient supply of

electricity that is competitively priced," reflected Murphy.

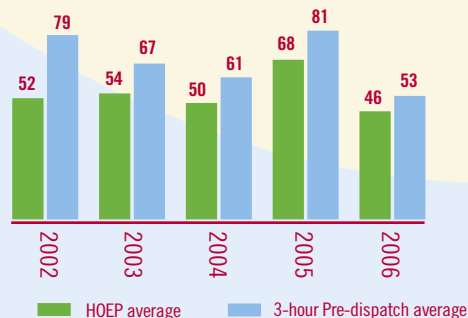
The average Hourly Ontario Energy Price (HOEP) since May 1, 2002 was \$54.32/MWh and consistently, year-after-year, Ontario's electricity price is the lowest among neighbouring markets. Over the past five years, there has been a substantial difference between daytime weekday prices and overnight/weekend prices.

The HOEP has become less volatile and the pre-dispatch price has become more reflective of the real-time price, adding greater value to consumers who plan their daily operations and rely on this price to make production

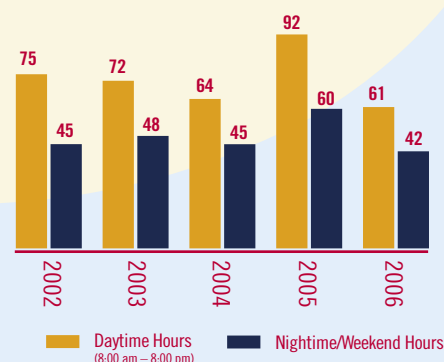
and consumption decisions. The implementation of a number of new initiatives including the Day Ahead Commitment Process (DACP), intertie failure charges and improvements to demand forecasting have resulted in greater certainty of generator availability, fewer transaction failures and additional flexibility for the IESO in managing the reliability of the system. Market Participants have also seen a downward trend in the total market-related uplifts including a 5% reduction in the IESO fee in 2006 and recently, a further 10% reduction in its fee for 2007.

Supply conditions in Ontario have improved as newly procured long-term

Hourly Price and Three Hour Ahead Pre-dispatch Price (\$/MWh)



Weighted Daytime and Nighttime/Weekend Prices (\$/MWh)



generation and demand management contracts are being brought into service. This has contributed to greater stability in prices as both annual energy use and peak demand steadily grow. In 2002, demand peaked at 25,414 MW, an all-time high up to that point. This record was broken several times over the following years and on August 1, 2006 a new peak record of 27,005 MW was reached. More supply and growth in the amount of dispatchable load has also meant a downward trend of the operating reserve prices over the past five years.

More than 4,400 MW of new or refurbished generation has come on line since 2002. The supply mix has become more diverse and environmentally friendly with the shutdown of the coal-fired Lakeview station and the addition of gas, co-generation, and almost 400 MW of wind to the system.

The domestic supply cushion or weekly available capacity has been increasing since the opening of the market. The number of hours with either a negative supply cushion or a supply cushion under 10 percent has also declined. The increase in the domestic supply cushion has reduced Ontario's reliance on imports and the potential for price spikes since market opening.

Existing generators have also

increased output under the market structure, particularly nuclear generators. Overall, Ontario's nuclear generating stations have exhibited an upward trend in performance. The capacity factor of these generators has increased from 80 per cent in 2003 to 85 per cent in 2006. The upward trend in performance can also be seen in the reduction in planned and forced outages. Since May 2003, forced outages have declined continuously. These outages occur without warning and have an immediate impact on the HOEP by causing a price spike until the lost output can be replaced. This improved performance is influenced by the competitive and transparent environment in which generators operate today as compared to before market opening in 2002. It also reflects, in part, the operating risks that generators bear and the need to operate to recover their costs and earn a rate of return.

The electricity industry in Ontario will continue to change as coal generation is phased out, new sources of supply such as wind power are added, enhancements to the

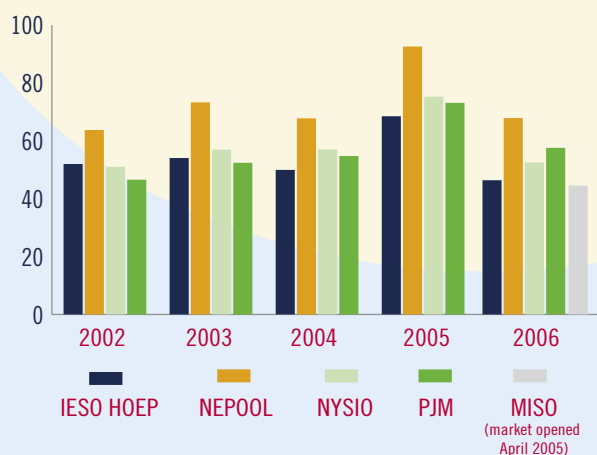
Top Ten Demand Days in Ontario (MW)

Date	Ontario Demand
Tuesday, August 01, 2006	27,005
Wednesday, July 13, 2005	26,160
Monday, June 27, 2005	26,157
Monday, July 31, 2006	26,092
Monday, July 17, 2006	25,898
Tuesday, June 28, 2005	25,861
Monday, July 18, 2005	25,857
Wednesday, August 02, 2006	25,816
Tuesday, August 09, 2005	25,816
Tuesday, July 12, 2005	25,808

transmission system are made and new demand response programs are undertaken. The installation of smart meters in each and every household in the province will also play an important role in integrating the wholesale and retail markets.

Future initiatives will continue to see the IESO and stakeholders work together to develop a market that reflects current realities and offers key data and information that allows generators, consumers and traders to make informed and practical decisions. ●

Ontario Wholesale Prices vs. Neighbouring Jurisdictions (\$/MWh)

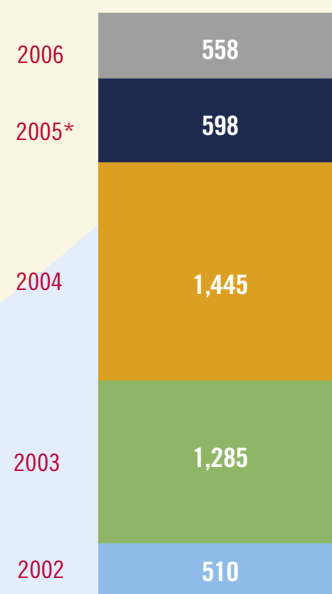


Number of hours when demand plus operating reserve exceeded internal generation

Year	# of Hours
2002*	530
2003	633
2004	448
2005	593
2006	246

*May – Dec 2002

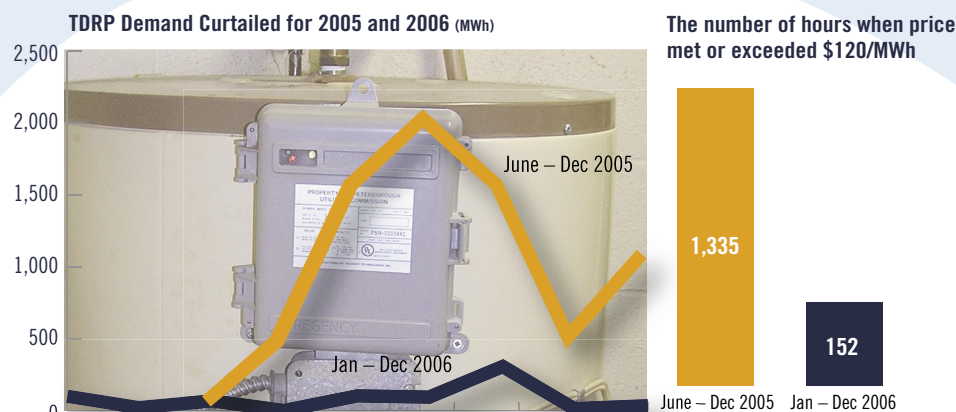
Annual Capacity Additions and Refurbishments (MW)



*Lakeview Removal of 1,130 MW not included

Transitional Demand Response Program now Completed

Program helped consumers manage energy use and respond to system conditions



Between June 2005 and December 2006, consumers responded by curtailing their electricity use when the price met or exceeded \$120/MWh.

When Peterborough Utilities entered the IESO's transitional demand response program (TDRP) in 2005, they saw a unique opportunity to shift their use of electricity and better manage their costs. They also saw their participation as one way to improve reliability of the electricity grid during periods when electricity supply was tight and prices were high. Although this transitional program is now over, Peterborough Utilities, a local distribution company in central Ontario, is committed to remain active in demand response for the same reasons.

TDRP was introduced by the IESO as a temporary initiative to increase the level of demand response capability in Ontario. Its primary objective was to provide economic assistance for participants to overcome barriers that previously prevented them from

responding to price signals. Results from the temporary program have been encouraging and have demonstrated the need to continue with similar demand response programs, a need that the Ontario Power Authority is now addressing.

When the three-hour pre-dispatch price reached or exceeded \$120/MWh, a TDRP participant voluntarily decided whether or not to reduce demand for that trading hour. The participant was then compensated through a payment calculated by multiplying the three-hour ahead price by the number of megawatts of demand reduction in that hour.

Thirteen participants were accepted into TDRP, representing 21 projects and 65.8 megawatts (MW). Of the 13, nine companies representing 32.3 MW of demand response actively participated

in the program.

Demand reductions ranged from the shut down non-critical equipment such as controlled lighting, cooling, heating and refrigeration, to the use of load displacement and embedded generation. Over the period April 1, 2005 to December 31, 2006, a total of 1,524 hours of TDRP was activated, where the three-hour ahead pre-dispatch price exceeded \$120/MWh. Of those 1,443 hours, where TDRP payments were made, totalling \$1,300,480. The maximum hourly load reduction of 21 MW was reached on October 14, 2005 in Hour 13.

Several program participants fully automated their participation by extracting the three-hour ahead pre-dispatch price signals from the IESO website and integrating it with their system to signal load shedding when the strike price reached \$120. Peterborough Utilities, owner of 12,000 water heaters, was actively engaged in TDRP and integrated the IESO strike price with their SCADA system to shed water heater load.

"We had the potential to shed up to 9 MW of load from all of our water heaters and willingly shed above the 5 MW maximum of the program to assist Ontario during times of tight supply," said Doug Bray, Manager of Metering and Data Management at Peterborough Utilities Inc.

TDRP proved to be a valuable

EVENTS CALENDAR

May – July 2007

More information on these and other events is available at: www.ieso.ca/events

All events are in the Greater Toronto Area (GTA) unless otherwise noted.

May 31

- > 2007 Power System Emergency Workshop – Barrie

June 5

- > IT Standing Committee Meeting

June 5

- > Report Site Transition Working Group Meeting

June 6

- > Stakeholder Advisory Committee Meeting

June 7

- > Market Pricing Working Group Meeting

June 12

- > Introduction to Ontario's Physical Markets Training

TDRP NOW COMPLETED*Continued from page 5*

transitional program for getting consumers to think about demand response by providing incentive payments to fund the installation of demand response technologies and infrastructure. Managing the way energy is consumed is a low-cost and environmentally responsible approach to maintain a balance between supply and demand.

The close of TDRP is not the end of incentive based demand response programs. The Ontario Power Authority (OPA) has launched a permanent program similar to TDRP that allows participants to voluntarily reduce energy use for a minimum of one hour, based on the three-hour ahead pre-dispatch price published by the IESO. The OPA program is targeted at loads greater than 0.5 MW and less than 100 MW and is expected to be launched in the summer of 2007.

More information is available by clicking on programs on the Conservation Bureau website at: www.conservationbureau.on.ca. •

IESO 2006 Customer Survey Results now Available

Feedback helps IESO evaluate corporate performance and priorities



Market participants have a high level of confidence in the IESO's ability to direct the reliable supply and delivery of electricity, according to the results of IESO's fifth annual customer survey. The 2006 survey which compiled the opinions of 68 market participants enables the IESO to identify areas where improvements are needed as well as where progress has been made.

Participants gave high rankings to the IESO particularly in the key areas of market and reliability oversight and customer service and communications.

Issues cited for the IESO to concentrate on included certain administrative processes, a high volume of emails, and challenges with smart meter implementation.

The IESO will address participants' concerns by undertaking a number of actions in 2007 such as:

- Finding ways to reduce the administrative burden on market participants
- Continuing to reduce the volume of emails sent by the IESO
- Meeting with market participants across Ontario on issues that affect them such as the four smart

meter sessions held this spring in London, Sudbury, Toronto and Kingston

- Working with local distribution companies to ensure the IESO's role in smart metering is valuable to their business
- Continuing to manage IESO's finances responsibly
- Ensuring market participants are informed about how their input has contributed to IESO decisions

"We are grateful that market participants take the time to participate in our customer survey. Their feedback plays an important part in establishing our corporate priorities and the Board of Directors relies on this external assessment of how the IESO is performing," said Bruce Campbell, Vice President Corporate Relations and Market Development for the IESO.

The survey was completed by an independent firm and is available on the web site at www.ieso.ca/survey. •

June 13

- > Interjurisdictional Energy Trading Training

June 14

- > Commercial Reconciliation (Settlements) Training

June 20

- > Forecast & Assessment Standing Committee Meeting

The Electricity Exchange is mailed to subscribers on a quarterly basis and is also available on the IESO web site at: www.ieso.ca/ElectricityExchange

We welcome your comments, feedback or suggestions. Please send us an email at: electricity.exchange@ieso.ca or contact the editor, **Rayhan Malik** at **905.403.6958**.

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