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THE ELECTRICITY exchange

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Ensuring this Summer's Reliability

New initiatives on track for implementation in June

Measures to reduce reliability risks are well on track for implementation this summer. The IESO and market participants are working on a number of initiatives aimed at reducing the strain on the province's electricity system. These initiatives are geared at limiting the need to activate emergency control actions - including voltage reductions - to reduce demand and maintain power supplies to Ontario consumers.

"We experienced serious reliability concerns last summer that we need to address," said IESO President and CEO Dave Goulding. "The IESO is working hard at getting these initiatives ready for implementation this summer."

The first of these measures, the Day Ahead Commitment Process (DACP) will increase supply certainty by committing dispatchable generators and scheduling imports a day-ahead in exchange for a financial guarantee. Allowing imports to be scheduled day-ahead should help address the chronic transaction failures that took place last summer. The ability to plan day-ahead will also provide more time for the IESO, generators, dispatchable loads and importers to foresee and collaborate to manage next-day energy or capacity shortfalls.

An Emergency Load Reduction Program (ELRP) is being established to pay consumers who elect to participate in the program, to reduce their consumption during supply shortages.

The DACP uses the existing pre-dispatch process, with some additional manual procedures. "This project represents a significant effort from market participants and their commitment is key to the success of the DACP," said Paul Murphy, Chief Operating Officer of the IESO. The IESO anticipates a limited impact on market prices and uplifts. While the process will be in place on June 1, 2006, it will not extend beyond November 30, 2006 without IESO Board direction.

The IESO Board is now considering recommendations made by the Technical Panel on rule amendments that would address real-time intertie transaction failures through an intertie failure charge. Under this mechanism, participants would be charged for transaction failures that are deemed to be under the market participant's control. A similar mechanism for day-ahead import failures is under development and will be integrated with the DACP. Collections from all such charges will be rebated back to the market.

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ENSURING THIS SUMMER'S RELIABILITY

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An Emergency Load Reduction Program is being established to pay consumers, who elect to participate in the program, to reduce their consumption during supply shortages (see ELRP story on page 5 for more details).

Resolving dispatch issues is also a priority for this summer. Changes to dispatch instructions will reduce their number and volatility in an effort to improve generator reliability. A Dispatch Issues Working Group is enabling dispatchable generators to provide input and advice on the resolution of dispatch issues that can be addressed by June 2006, recognizing the need for additional input on longer term solutions.

New generation supply will also address reliability concerns. Since last summer, a Pickering (500 MW) unit has returned to service and the new Greater Toronto Airports Authority (GTAA) - a gas fired generator - is now injecting 100 MW into the grid. More than 200 MW of new wind generation from the Kingsbridge, Amaranth (Melancthon) and Port Burwell (Erie Shores) projects are expected to be in service by June 1, 2006. •

To find out more about these various initiatives and the progress underway in addressing them, visit the Stakeholder Engagement web pages at: www.ieso.ca/stakeholder. For information on the DACP, visit: www.ieso.ca/DACP

Woodstock Hydro: A Model for New Approaches on Conser

Subsidized interest rates available to Woodstock businesses who make investments in en

The launch of the new Energy Savings Finance Program has once again put Woodstock Hydro Services at the forefront of innovative approaches to energy savings. Through its strategic partnership with CIT Financial and Natural Resources Canada, new savings opportunities are being developed for local businesses through conservation investment.

Woodstock Hydro will help local businesses save money and energy by subsidizing interest rates – up to four per cent off market rates – on any CIT financing used to retrofit plants or acquire energy-efficient equipment.

An initial $100,000 in interest rate subsidies will be allocated to help local industries through this program. "The program provides an ideal opportunity, enabling businesses to reduce their energy consumption and ultimately reduce their operating costs through an affordable financing incentive," said Jay Heaman, Manager, Engineering and Conservation at Woodstock Hydro Services. "The initiative was launched as a way of accommodating hydro customers who have completed an energy audit

Whole Foods Market makes Landmark Purchase of Wind Energy Credits

Whole Foods Market, Oakville, ON

Grocery chain will buy wind to offset electricity use

Whole Foods Market has become the first Fortune 500 company to offset 100% of its electricity use through the largest wind energy credit purchase in North American history. As the world's leading natural and organic food supermarket, the company has made a landmark purchase of renewable energy credits which offsets its entire electricity consumption across all 181 stores – including Oakville and Toronto – as well as its bake houses, distribution centres, regional offices and international headquarters for Canada, the U.S. and the U.K. The wind power purchased through these credits is delivered to Ontario's grid and used to displace emission-producing forms of power.

"Caring about our communities and respecting our environment through the purchase of wind energy credits is integral to our core values," said Matt Bojcun, store team leader at the Oakville Whole Foods Market. "Offsetting 100% of our electricity use with renewable, clean energy strengthens our commitment to environmental stewardship by cleaning the air and reducing our dependence on fossil fuels."

Through this initiative, the grocery chain is currently purchasing more than 458,000 MWh of renewable energy credits from wind farms, thereby reducing carbon dioxide emissions by more than 317,000 tonnes this year. To put this into perspective, 60,000 cars would have to be taken off the roads.

This latest initiative is an example of how Whole Foods' commitment to green building technologies and renewable energy has set new benchmarks for the grocery industry. •

To find out more about Whole Foods Market and their commitment to environmental initiatives, visit: www.wholefoodsmarket.com.

vation Investment

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or power factor analysis, but found that capital costs to complete the project were often unavailable."

"Partnerships such as this are proof positive that the energy industry is changing, and with it expectations are changing as well... changing the way we create energy and the way we do business," said Ontario Energy Minister Donna Cansfield at a Woodstock event introducing the program to local business leaders and officials.

"The program provides an ideal opportunity, enabling businesses to reduce their energy consumption and ultimately reduce their operating costs through an affordable financing incentive."

Energy conservation is a critical component of the program. Heaman said that both Woodstock Hydro Services and CIT Financial "are delighted to have Natural Resources Canada as a partner in this exciting project because in addition to saving companies energy and money, they are also contributing to a reduction in greenhouse gas emissions."

Businesses who are customers of Woodstock Hydro interested in the program can visit the web for energy savings examples and to perform online calculations to see how upgrading through this program can pay for itself. •

"We need the ideas and ingenuity of the private sector to help us meet this challenge, and I applaud the efforts of Woostock Hydro, CIT Financial Services and Natural Resources Canada for setting such a fine example in helping us do just that." Energy Minister Donna Cansfield

To learn more, visit: www. woodstockhydro.com/ energysavings/ or contact Jay Heaman at 519-537-7172 ext 255 or 519-320-0460.

"EX" Marks the Spot for Energy Self-Sufficiency

New environmental plan at Exhibition Place committed to green generation

Princes' Gates, Exhibition Place

The need for new generation and reduced electricity demand are important challenges facing central Toronto. The City of Toronto's Exhibition Place is one company looking to address that challenge head-on by reducing how much electricity they draw from Toronto's electricity grid and becoming a showcase for innovative green technologies and practices.

As part of its Environmental Pan, the"EX" is committed to pursuing leading edge green technology with a goal of achieving energy self-sufficiency by 2010. Most residents and visitors to Toronto are already aware of the 94 meter wind turbine that has graced the EX for the past three years – capable of producing 1,200 MWh of electricity annually, or enough to power over 200 homes. Now the 120 MWh pilot phase of Canada's largest solar power system is set to be installed on the roof of the EX's Horse Palace this spring, initially displacing 95 tonnes of CO_2 emissions annually. Once the project is fully built in 2006/7, it will displace up to 2,000 MWh per year of electricity, thereby reducing CO_2 emissions on an annual basis by approximately 1,906 tonnes.

"As the largest solar power installation in Canada, this ties in nicely with our goal of replacing 100 per cent of the power we draw from the grid with alternative energy sources by 2010,"notes Dianne Young, General Manager and CEO of Exhibition Place. "We're now one step closer to our overall strategy of making Exhibition Place a net exporter of clean electricity."

Preliminary work is also underway for a tri-generation system that will burn natural gas to produce electricity for the EX's National Trade Centre with a power output of 12,000 MWh annually.

If self-sufficiency is the goal, this will be an impressive accomplishment for a site that draws over 37,000 MWh of electricity a year, or enough to power over 3,000 Ontario residences. •

Buying 100% Green Power Made Easy

Homeowners and businesses can purchase contracts for green electricity

Ontario homes and businesses now have the option of going 100% green. Bullfrog Power, Ontario's first 100% green electricity retailer, buys power exclusively from pollution-free wind and low-impact hydro generators who meet or exceed the federal government's EcoLogo standard for renewable energy. Although B.C. based, power purchased by Bullfrog for Ontario customers is 100% Ontario produced.

Businesses and homeowners can sign a one-year guaranteed contract rate of 8.3 cents per kWh, which represents the total cost for the electricity portion of their bill. This modest premium for green power adds, on average, less than a dollar a day to their monthly rate. No special wiring or set-up is required as electricity continues to be drawn from the province's grid. The only difference is the green power purchased displaces other sources of power from Ontario's supply mix. Although the rate is guaranteed for a year, customers are not locked into their contract, so they can switch suppliers at any time, making the switch risk-free.

"We're thrilled with the increasing demand for renewable power in Ontario," said Tom Heintzman, President, Bullfrog Power. "To ensure Bullfrog Power is made available across the province, we're continuing to build cooperative agreements with numerous local utilities across Ontario."

While Bullfrog Power is the only retailer of 100% green electricity, Ontario currently has four open-market suppliers of green energy certificates including Grey Bruce Renewable Energy Co-op, Oakville Hydro Energy Services and Selectpower (an affiliate of Guelph Hydro). Each sells zero emission energy certificates in blocks of kilowatt hours for set prices, with anyone in the province able to purchase power from these suppliers. •

To find out more about choosing a supplier and calculating the cost of adding green power to your supply mix, click on www.electricitychoices.org

Mandatory Reliability Standards Under New ERO

The recent passage of the U.S. Energy Policy Act (EPAct) has given impetus to the development of mandatory standards for operating the power system across the interconnected North American networks. The North American Electric Reliability Council (NERC) expects to be given the designation of Electric Reliability Organization (ERO) by provincial regulatory authorities and the Federal Energy Regulatory Commission (FERC) later this year. These regulatory authorities will continue to provide oversight of the ERO which will be established to set and enforce standards for the bulk-power system. Dave Goulding, IESO President and CEO continues to be involved. "For our part, the IESO will continue to play its part in representing Ontario and Canadian interests," said Goulding. "I've always been acutely aware of the interdependency between neighbours in this business and it's essential that with our plans and our operations, we remain members in good standing if we are to continue to receive the support that we have relied on over the years."

Since Ontario has operated with mandatory enforceable standards since market opening in 2002, little is expected to change under this new structure from the perspective of market participants. The IESO is working within the industry to maintain the use of Ontario's compliance monitoring and enforcement processes. •

More information is available on the NERC website at www.nerc.com.

New Appointments to IESO Technical Panel

David Charleson has been appointed to the IESO's Technical Panel for an initial three-year term representing the natural gas industry sector. The November meeting of the IESO Board of Directors approved the expansion of the Technical Panel to include a representative from the natural gas industry. Mr. Charleson is the Director of Energy Policy and Analysis at Enbridge Gas Distribution Inc., where he is responsible for the management and administration of all gas supply planning, acquisition and risk management activities. In this capacity, Mr. Charleson also oversees the development of the company's strategy relating to the contracting of supply, upstream transportation and storage.

Ken Kozlik, Director, Market Development takes over for **Peter Sergejewich**, Director of Corporate Planning as the IESO member on the Technical Panel. Mr. Kozlik has 28 years of experience in the electricity industry. He brings a comprehensive technical background to the Panel along with his more recent experience in working with the Ministry of Energy in their initial procurement process for new generation.

As a founding member of the Technical Panel following his involvement with the Market Design Committee, Mr. Sergejewich was also the longest-serving, having been a Panel member since its inception in 1999. "Peter's contributions to the Panel and the market rules have been instrumental in the ongoing development of Ontario's electricity system," said Derek Cowbourne, Vice-President, Reliability Assurance and Chair of the Technical Panel. "We thank Peter for his hard work and dedication to the Panel over the past seven years and look forward to working with Ken in the future."

To find out more about the IESO's Technical Panel, its role and membership, visit: www.ieso.ca/technicalPanel

It Pays to Join New Load Reduction Program

The new Emergency Load Reduction Program (ELRP) provides an opportunity for electricity consumers and the IESO to enhance the reliability of the power system starting this summer. IESO Vice-President, Corporate Relations and Market Development, Bruce Campbell, says both the IESO and loads benefit from this new initiative. "The IESO control room gains an additional emergency control action while the loads can receive financial incentives for reducing their energy usage under stressed system conditions," Mr. Campbell said.

The ELRP will be one of the initial steps taken by the control room in order to reduce the reliance on voltage reductions, requests to Ontario generators to seek environmental variances, and emergency energy purchases from neighbouring jurisdictions. Total payments under the program will vary depending on the actual conditions on the power system.

Program participants, who must make a minimum reduction of one megawatt, will receive a standby payment of $15 per MW for each hour when the IESO foresees the possibility of an emergency event either one day ahead or early on the day-at-hand. Loads eligible for the standby payment must commit to a reduction that will last either two, three or four consecutive hours. The IESO will provide one hour notice before activation and will pay participants the greater of the Hourly Ontario Energy Price or:

- **$400 per MW for each hour, for 2 hours of reduction,**
- **$500 per MW for each hour, for 3 hours of reduction, or**
- **$600 per MW for each hour, for 4 hours of reduction.**

Success will be measured by how many megawatts can be provided by participants and the reliability of the load reduction response. The IESO will be spending the next few months encouraging companies and aggregators to join. This program is intended to be an ongoing feature of the IESO-administered market. •

Companies who can reduce their electricity demand or have embedded generation on-site and are interested in the program should contact IESO customer relations at: 905-403-6900 or customer.relations@ieso.ca.

Mike Naeve and Roberta Brown Appointed to IESO Board of Directors

Clifford (Mike) Naeve and **Roberta Brown** have been appointed to the IESO Board of Directors for a two-year term beginning April, 2006.

Mr. Naeve heads the global energy practice group for Skadden, Arps, Slate, Meagher & Flom LLP. Prior to joining the firm in 1988, Mr. Naeve was a Commissioner at the Federal Energy Regulatory Commission (FERC), where he played a leading role in developing policies for enhancing competition in the natural gas industry, including open access transportation, relaxation of wellhead price regulations, and deregulation of gas merchant activities. He was also instrumental in developing new approaches to the Commission's regulation of the electric power industry.

Ms. Brown is the President of Sassafras River Associates and is currently involved with the formation and startup of Reliability*First* - a new regional electric reliability council of NERC (North American Electric Reliability Council) in the U.S. She previously held other leadership positions as Vice-President of Transmission at Pepco and Delmarva Power, Vice-President of Business Development for Conectiv Energy and Vice-President of New Castle region for Conectiv Power Delivery.

"These are important times in Ontario's electricity industry and I'm delighted to participate in the process through my membership on the IESO's Board of Directors," said Brown. "We have many challenges ahead of us, but I'm confident that a clear path for Ontario's electricity future will continue to build through our shared vision of the market and its mechanisms."

For more information on the IESO Board of Directors, visit: www.ieso.ca/board

EVENTS CALENDAR

April – June 2006

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.

April 5

> Day Ahead Commitment Process (DACP) Trials Working Group Meeting

April 6

> Dispatchable Issues Working Group Meeting

April 7

> Market Pricing Working Group Meeting

April 12

> DACP Trials Working Group Meeting

April 19

> DACP Trials Working Group Meeting

April 19

> Market Operations Standing Committee Meeting

Reliability and Emergency Response Workshops

The IESO is hosting two-day reliability/restoration workshops in Sault Ste. Marie, Sarnia, Thunder Bay and Cobourg this spring. These workshops are designed to help market participants understand their role in maintaining reliability and emergency response and to prepare for the large-scale restoration exercise planned for this fall.

"Building on last year's successful sessions and the feedback provided, we are making a few changes to ensure the two days will be time well-spent for all participants," said Stuart Brindley, Manager, Training and Emergency Preparedness. "We will provide operators and operational supervisors with an opportunity to fully understand their role and responsibilities during an emergency and to see how others coordinate their actions to support reliability and recovery."

Brindley said the workshops provide an opportunity for organizations to ensure their operating procedures and emergency plans are effective and well-coordinated with other organizations. •

To register for these workshops, please call the IESO at 905-855-4142. More information, including the agenda, is available at: www.ieso.ca/workshops

Dates and locations are as follows:

Location	Workshop Dates	Last Day to Register
Sault Ste. Marie	March 28-29	March 14
Sarnia	April 26-27	April 12
Thunder Bay	May 16-17	May 2
Cobourg	May 30-31	May 16

We've redesigned *The Electricity Exchange* and want to get your opinion on the new look and content. Please fill out the short online survey at **www.ieso.ca/survey**

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**

Winter Voltage Reduction Test a Success

The five per cent province-wide voltage reduction performed on January 19 from 5:30 p.m. to 7:30 p.m. resulted in a reduction of electricity demand by 450 - 500 MW. "This test provides valuable information for our operators who need to know the impact of the emergency control actions they have available to manage system emergencies," said Mark Wilson, IESO Manager, Shift Operations. "The voltage reduction test went as planned and the local distribution companies responsible for actually lowering station voltages responded in a professional and coordinated manner," said Wilson.

A three per cent test in the morning lasted for two hours and saw a demand reduction of 350 - 400 MW. Some temporary exclusions for the test were granted based on protecting public and employee health and safety or preventing damage to equipment or the environment. Local distribution companies are working with these customers to address the reasons for the exclusions as electrical equipment built to Canadian Standards Association (CSA) standards should be able to withstand these small voltage fluctuations. The next voltage reduction tests are scheduled for mid-July, 2007.

April 26

> DACP Trials Working Group Meeting

May 3

> DACP Trials Working Group Meeting

May 5

> Market Pricing Working Group Meeting

May 24

> Stakeholder Advisory Committee Meeting

May 31

> Launch of DACP in advance of **June 1** trade date

June 7

> Gala event to celebrate 100th anniversary of the formation of the Hydro-Electric Power Commission of Ontario.