

Ontario's Reliability Outlook

Hydro Ottawa – Powering the Future 2006

November 7, 2006

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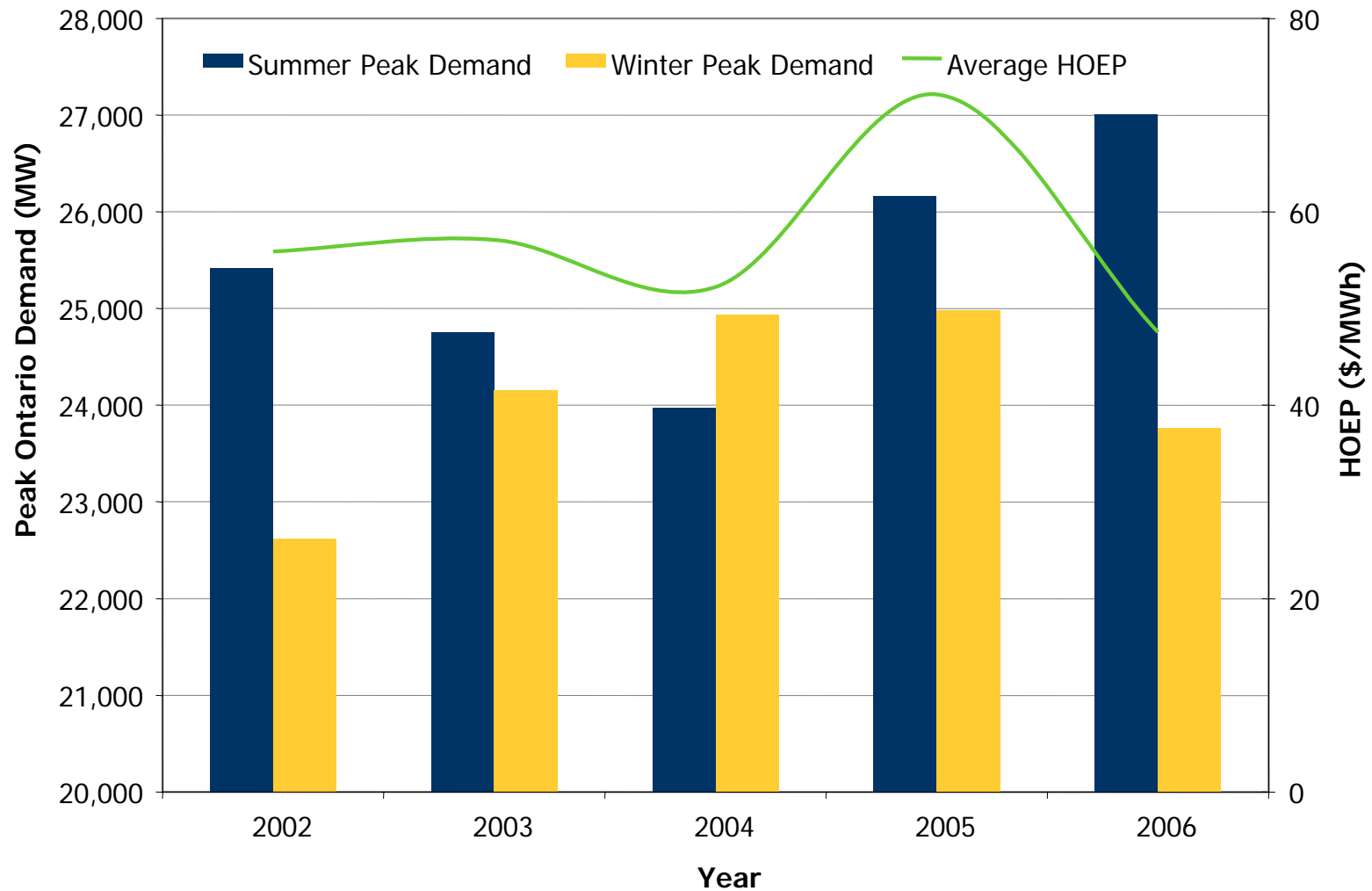
- The Independent Electricity System Operator (IESO) is a not-for-profit corporate entity established in 1998 by the Government of Ontario
- The IESO manages Ontario's electricity grid - directing the flow of electricity across the transmission system to meet the province's power needs
- It balance this demand for electricity against available supply through the wholesale market



The IESO's Role within the Industry

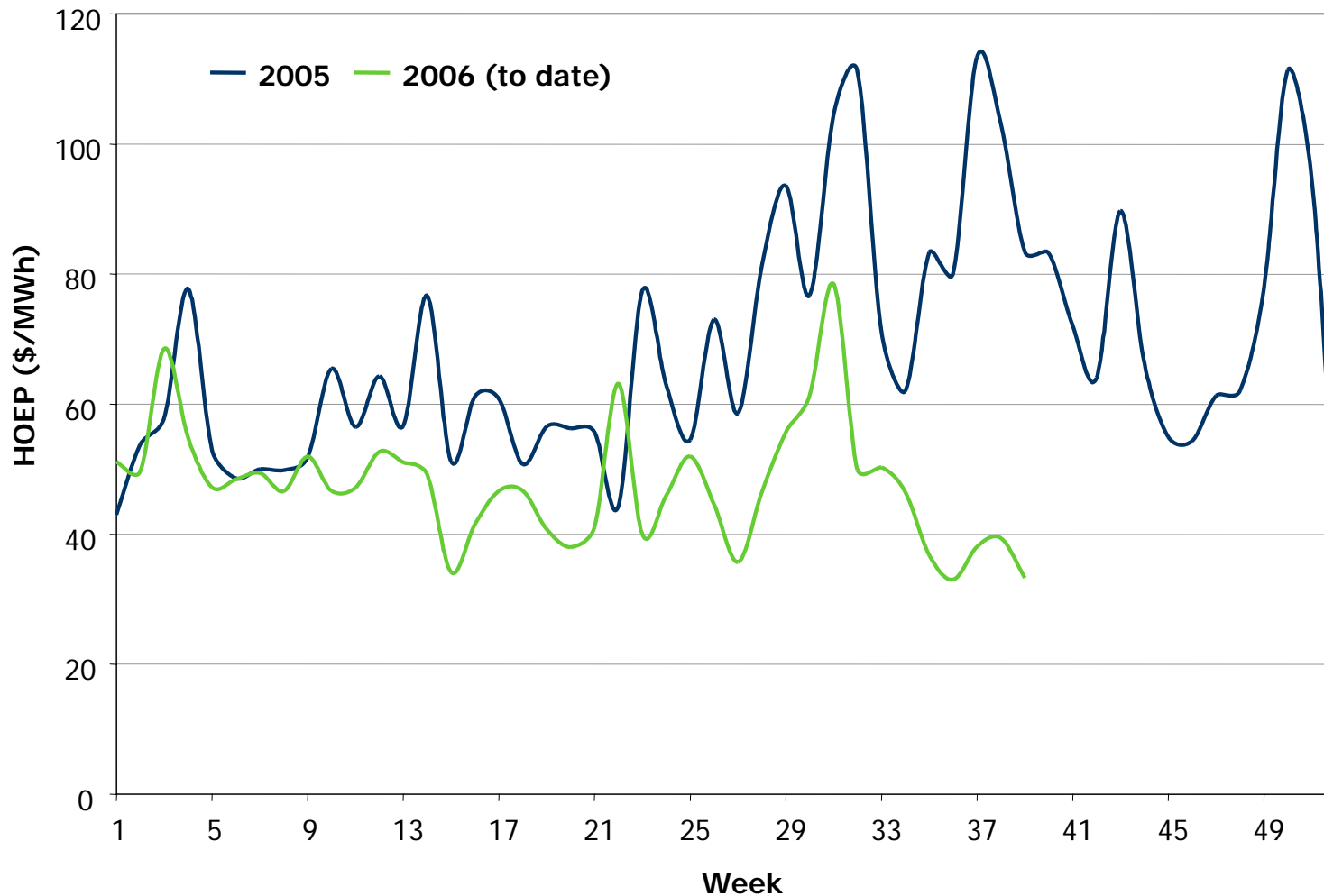


Annual Peak Demand and Average HOEP



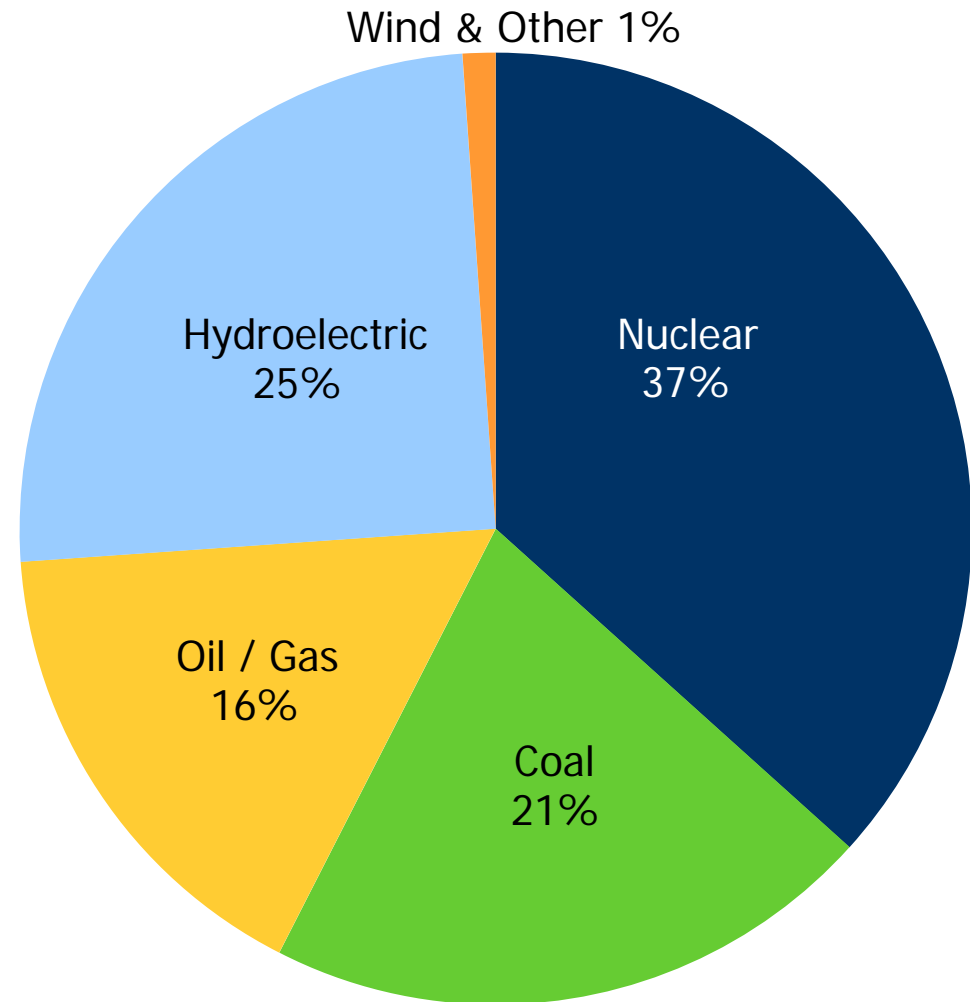
Supply Constraints Reflected in Market Price

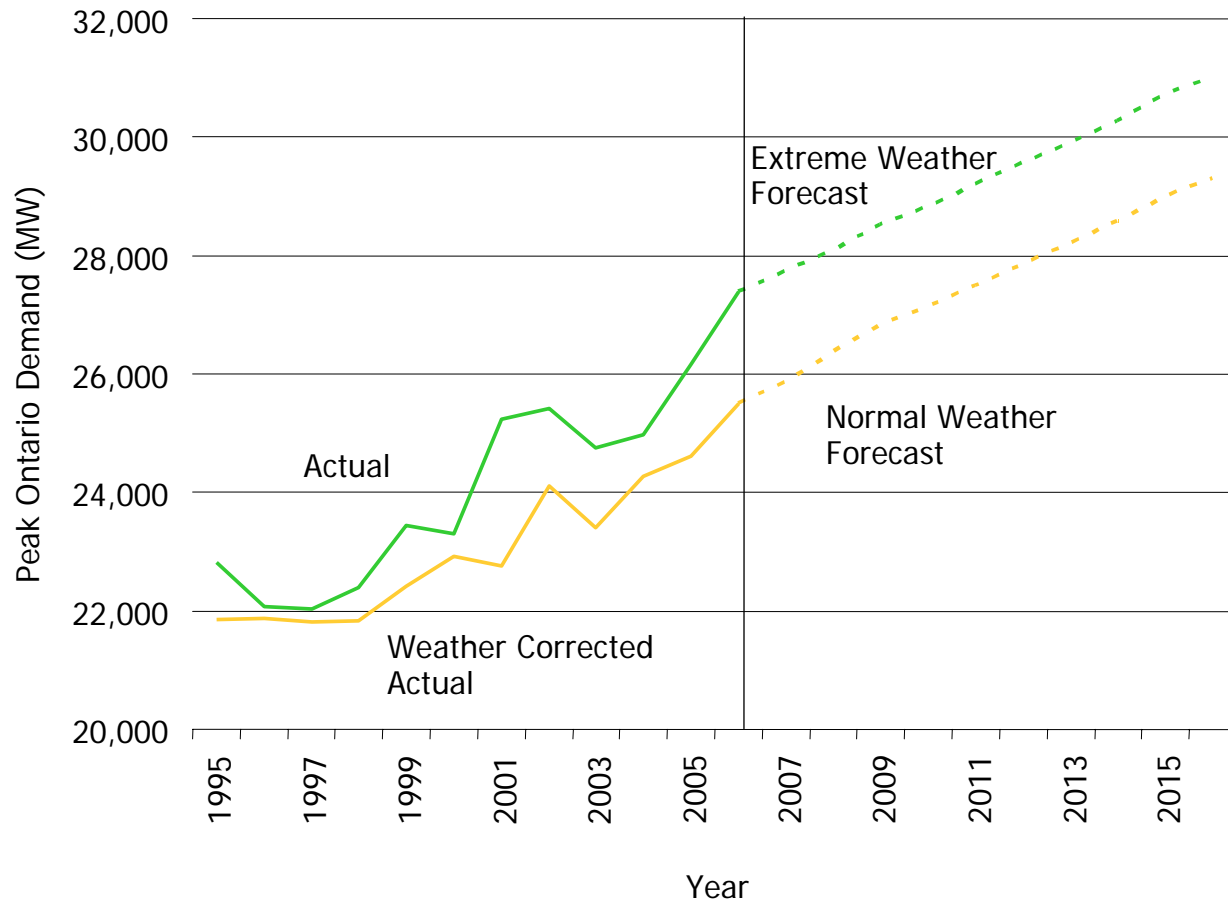
Weekly Ontario Wholesale Electricity Prices (2005 vs. 2006)



Existing Supply Mix in Ontario

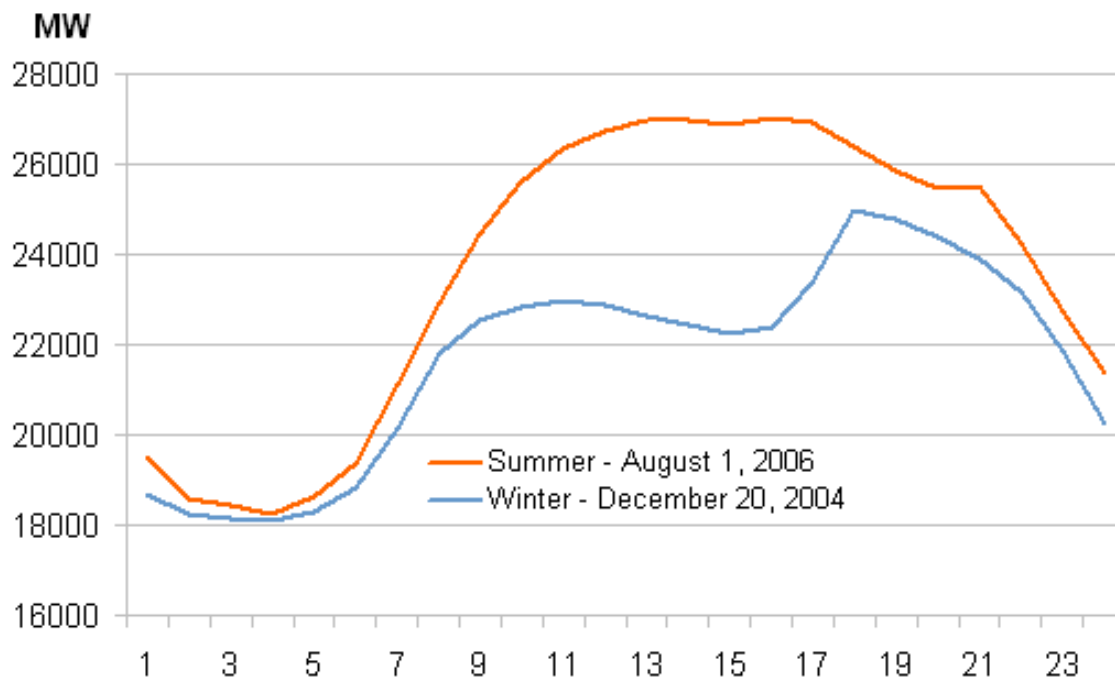
- According to the IESO's most recent 18-Month Outlook, there is 31,094 MW of installed capacity in the province
- However, dependable capacity can range between 20,000 to 27,000 MW depending on outages, deratings and other system limitations



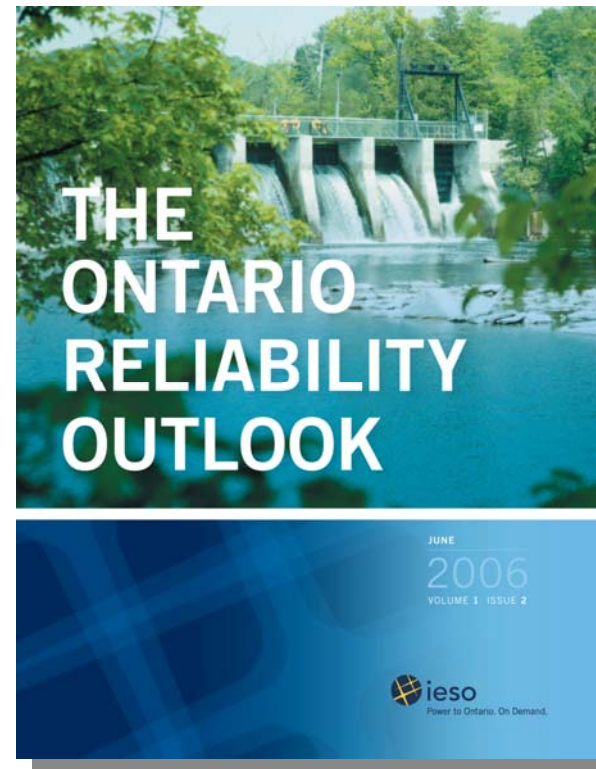
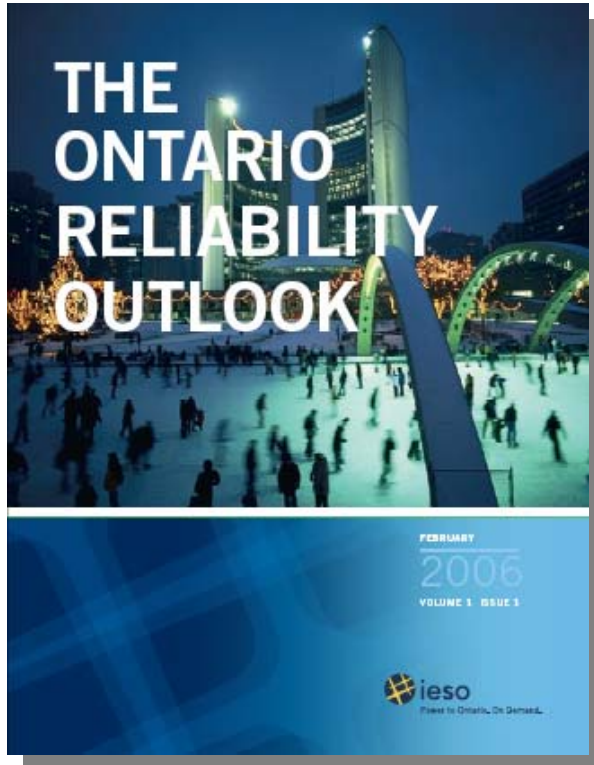


- Investment in new supply must keep pace with anticipated demand growth.
- Timing of off-coal transition will drive the need for investment in new generating capacity.

Summer vs. Winter Record Peaks



Demand exceeded 24,000 MW for 14 hours on August 1, 2006; only 3 hours on December 20, 2004.





Recent Results

- Portlands Energy Centre for Toronto
- GTA projects including Sithe
- Coal replacement

Action Required

- Transmission enhancements to address bottlenecks in several areas
- Improved approvals processes for new generation and transmission

- IESO's most recent Ontario Reliability Outlook identified actions needed to address reliability concerns in the Ottawa region
- Meeting load growth in the area will require transmission upgrades in the future
- 1,250 MW Ontario – Quebec interconnection will relieve transmission constraints in the region

- Wind Power is important to future supply mix, but need to reflect its dependable on-peak contribution
 - Wind: Traditionally 10 per cent of installed capacity
 - Recent study found that average availability during summer peak could be 17 per cent
- IESO is committed to integrating new wind projects in a timely and reliable manner



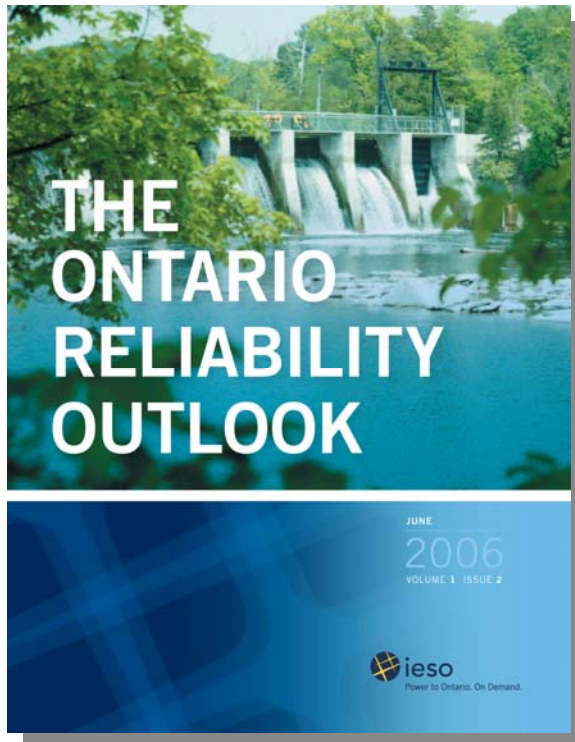
- CDM is a cornerstone of the province's long-term resource adequacy plan
- Lack of historical information on impact of CDM
 - Greater certainty if good verification
 - Working with OPA to refine expectations
- Market price signals provide demand response when it is most needed
- Accurate market price signals are also critical to exploiting the full potential of the government's smart meter program

- ELRP provides a financial incentive for electricity consumers to enhance reliability of the power system
- Targeted towards loads who can shed at least 1 MW for two to four consecutive hours
- ELRP participants voluntarily submit demand response capability when requested by the IESO
- ELRP is in effect from 8:00 to 20:00, only on business days
- ELRP is an on-going program

1. Understand your Energy Costs
2. Monitor and Target
3. Understand When Energy is Used
4. Understand Where Energy is Used
5. Eliminate Waste
6. Maximize Efficiency
7. Optimize your Energy Supply
8. Monitor your Progress, Share the Results

Take Advantage of the Incentives

1. IESO's Emergency Load Reduction Program
2. Ontario Power Authority's Demand Response Program for business
3. Energy audit incentives and other assistance from Natural Resources Canada
4. Conservation and demand management Programs for business offered by some local distribution companies
5. Incentive programs from gas utilities



1. The short-term outlook for Ontario is positive, if ...
2. The IESO will continue to play its part
3. Will you?

- Visit the IESO's website at www.ieso.ca/business for more information on how to lower your energy costs
- Access one of many publications to learn more about how to get started

