

**18-MONTH OUTLOOK:**

# An Assessment of the Reliability of the Ontario Electricity System

From October 2006 to March 2008



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## Executive Summary

Ontario set a new record of 27,005 megawatts (MW) for peak demand on August 1, 2006. New generating capacity, good water conditions, excellent performance from Ontario's generators, transmission upgrades, and new market mechanisms all contributed to Ontario's ability to manage this higher demand. Looking ahead, under the Normal Weather demand scenario, there are sufficient resources forecast within Ontario to meet expected requirements over much of the period covered in this Outlook. However, particularly under extreme weather conditions, the system would be strained and Ontario would need to continue to rely on additional supplies from outside the province.

Ontario's demand was about 12,000 MW over the Labour Day weekend, when spot market electricity prices hit record lows. On Sunday, September 3, as a result of high levels of baseload generation, below normal temperatures and a reduction in export capability due to a forced intertie circuit outage, the Hourly Ontario Energy Price (HOEP) was negative at -\$3.10 per megawatt hour (MWh) for the first time since market opening. For that hour, consumers that pay the market price received a credit. Setting records for highest hourly demand in August, followed by the record for the lowest hourly price in September illustrates the wide range of operating conditions that can be experienced in Ontario, and the need for careful planning and assessment of the appropriate resource mix to meet the province's electricity needs.

Looking ahead to 2007, timely completion of the Goreway Station Phase One (485 MW) will help meet the expected increase in Ontario demand for the summer. Plans for generator outages have been revised since the last Outlook leading to significant improvements in supply reserves during the summer of 2007.

Since the last 18-Month Outlook was released in June, 2006, work continues on the 550 MW Portlands Energy Centre in Toronto. The schedule is to have 330 MW in service by the summer of 2008. A total installed capacity of about 300 MW of wind generation is now contributing to the Ontario market, and another 366 MW of wind generation is scheduled to come into service during the 18-Month study period.

The completion date for work to address transmission limitations from the Niagara region into the Hamilton-Burlington area continues to be delayed. The limitations affect both the use of available Ontario generation and imports into the province, particularly during hot weather, high demand periods.

The demand forecast is similar to that of the previous Outlook. Despite the record peak demand set this summer, reduced energy-intensive industrial load has led to lower

energy demand in 2006 and throughout the forecast. The following table summarizes the peak demands for the upcoming seasons under the different weather scenarios.

Season	Seasonal Normal Weather Peak (MW)	Extreme Weather Peak (MW)
Winter 2006-07	24,881	25,725
Summer 2007	25,801	27,513
Winter 2007-08	25,114	25,958

Weather corrected energy demand is expected to be 154.4 terawatt hours (TWh) for 2006, growing to 156.7 TWh in 2007.

The Independent Electricity System Operator (IESO) regularly assesses the adequacy and reliability of Ontario's power system. This 18-Month Outlook provides the IESO assessment of the reliability of the power system from October, 2006 to March, 2008 utilizing the most up to date forecast information and taking into account experience gained from past operations. The 18-Month Outlook is intended for operational planning purposes, and for the scheduling of generator outage plans. To avoid creating unacceptably low reserves, it is an important part of the overall operational planning process that participants adjust their maintenance activities to periods where available resources exceed requirements.

- End of Section -

**Caution and Disclaimer**

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# 1.0 Introduction

This Outlook covers the 18-month period from October 2006 to March 2008. It supersedes the report titled “An Assessment of the Reliability of the Ontario Electricity System from July 2006 to December 2007”, dated June 23, 2006.

The purpose of the 18-Month Outlook is:

- To advise market participants of the resource and transmission reliability of the Ontario electricity system;
- To assess potentially adverse conditions that might be avoided through adjustment or coordination of maintenance plans for generation and transmission equipment; and
- To report on initiatives that are being put in place to improve reliability within the 18-month timeframe of this Outlook.

The contents of this Outlook focus on the assessment of resource and transmission adequacy. Other supporting information and forecasts are contained separately in the following documents that are updated as required:

- “Ontario Demand Forecast from October 2006 to March 2008” (IESO\_REP\_0311) (found on the IESO web site at [http://www.ieso.ca/imoweb/pubs/marketReports/18Month\\_ODF\\_2006sep.pdf](http://www.ieso.ca/imoweb/pubs/marketReports/18Month_ODF_2006sep.pdf))
  - Contains a detailed description of the peak and energy demand forecasts used in this Outlook.
- “Methodology to Perform Long Term Assessments” (IESO\_REP\_0266) (found on the IESO web site at [http://www.ieso.ca/imoweb/pubs/marketReports/Methodology\\_RTAA\\_2006sep.pdf](http://www.ieso.ca/imoweb/pubs/marketReports/Methodology_RTAA_2006sep.pdf))
  - Contains information regarding the methodology used to perform the demand forecasts, resource adequacy assessments and transmission reliability assessments in this Outlook.
- “Ontario Transmission System” (IESO\_REP\_0265) (found on the IESO web site at [http://www.ieso.ca/imoweb/pubs/marketReports/OntTxSystem\\_2006sep.pdf](http://www.ieso.ca/imoweb/pubs/marketReports/OntTxSystem_2006sep.pdf))
  - Provides specific details on the transmission system, including the major internal transmission interfaces and interconnections with neighbouring jurisdictions.

Readers are invited to provide comments on this Outlook report or to give suggestions as to the content of future reports. To do so, please contact us at:

- Toll Free: 1-888-448-7777
- Tel: 905-403-6900
- Fax: 905-403-6921
- E-mail: [customer.relations@ieso.ca](mailto:customer.relations@ieso.ca).

This Outlook presents an assessment of resource and transmission adequacy based on the stated assumptions, using the described methodology. Readers may envision other possible scenarios, recognizing the uncertainties associated with various input assumptions, and are encouraged to use their own judgment in considering possible future scenarios. The tables contained in the document can be downloaded from the Independent Electricity System Operator (IESO) web site in MS Excel format.

In addition to the comprehensive Outlook, the IESO generally publishes Interim Updates to the 18-Month Outlook during each month for which a full Outlook is not issued. These updates include a spreadsheet which reflects changes to Total Resources, Total Reductions to Resources, and Reserve Above Requirement values for the Planned Resource Scenario. The updates also include a summary of actual demand and forecast demand data. Similar to the full Outlooks, the Interim Updates are posted on the IESO web site. These updates provide Outlook information on a more frequent basis to allow market participants to better adjust their operational plans and outage schedules.

The reader should be aware that [Security and Adequacy Assessments](#) are published on the IESO web site on a weekly and daily basis that progressively supersedes information presented in this report.

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## 2.0 Updates to This Outlook

### 2.1 Changes to Forecast Peak Demand

The demand models have been updated to include the actual demand, weather and economic experience through June and re-estimated based on that information. The economic outlook and weather scenarios have been updated based on the most recent data. The updated demand forecast is slightly lower than the previous due to continuing weakness in some sectors of the Ontario economy.

### 2.2 Updates to Resources

Since the previous Outlook report was published, four wind facilities with the total installed capacity of about 300 MW is now contributing to the Ontario market. These wind facilities are:

- Amaranth Wind Generating Station (formerly Melancthon Grey Wind Project), 67.5 MW
- Kingsbridge Wind Power Project, 39.6 MW
- Port Burwell Wind Generating Station (formerly Erie Shores Wind Farm), 99 MW
- Prince Wind Farm, 99 MW

The Hamilton Community Digester Energy cogeneration facility with the capacity of 1.6 MW, also became available in the last three months. An upgrade to an existing nuclear unit resulted in a capacity increase of 17 MW.

There have been updates to the generator and transmission equipment outages submitted by market participants.

### 2.3 Updates to Transmission Outlook

The list of transmission projects and planned and forced transmission outages has been updated from the previous 18-Month Outlook.

This outlook also presents a discussion of some of the transmission enhancements that are forecast to be in service within the outlook period.

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## 3.0 Historical Review

This section provides a review of past power systems operation, including the most recent months of operation, to identify noteworthy observations, emerging problems and variations from forecast.

### 3.1 Summer 2006 Reliability Program Improvements

The IESO implemented three major reliability initiatives in preparation for the summer of 2006, including the Day-Ahead Commitment Process (DACP), Day Ahead and Real-time Inertie Failure Charges and the Emergency Load Reduction Program (ELRP). These initiatives contributed favourably to the reliable operation of Ontario's power system during the record setting days of late July and early August. Overall, these initiatives resulted in greater certainty of generator availability, fewer transaction failures and additional flexibility for the IESO in managing the reliability of the system.

#### 3.1.1 Day-Ahead Commitment Process

The DACP was introduced to commit internal resources and import transactions in advance of real-time in an effort to reduce transaction failures and provide certainty for internal and import resources. For the forecasted peak hour on August 1, the IESO economically committed 98.6 percent of its internal resources one day in advance. Although actual peak demand was approximately 700 megawatts (MW) heavier than forecast, the market responded by economically scheduling additional imports to compensate for the difference.

Last summer, prior to the implementation of the DACP, the import transaction failure rate during the peak demand week was much greater. For example, during the week of July 11 to July 15, 2005, the failure rate was 14 percent. During this year's peak week of July 28 to August 3, only three of 218 import transactions scheduled in the DACP failed, resulting in a 1.44 per cent failure rate.

The following table indicates the percentage of import transactions scheduled in the DACP (in MWh) during the peak period (hour ending 15 to 19).

**Table 3.1 Import Transactions during Peak Period**

	July 28	July 31	August 1	August 2	August 3
Total Imports (MWh)	3,639	7,242	8,227	8,407	5,142
Day Ahead Imports (MWh)	1,539	550	1,931	3,323	400
Percentage	42	8	23	40	8

### 3.1.2 Day Ahead and Real-time Failure Charges

The following tables compare all intertie transactions for the peak periods (hour ending 15 to 19) from July 11 to July 18, 2005, and July 28 to August 3, 2006. There were fewer import transactions scheduled in 2006 due to an improved internal resource availability including additional installed capacity. The tables illustrate the reduction in failures that has been witnessed with the implementation of the intertie transactions failure charges.

**Table 3.2 Total Import Transactions during Peak Periods, July 11 – July 15, 2005 vs. July 28 – August 3, 2006**

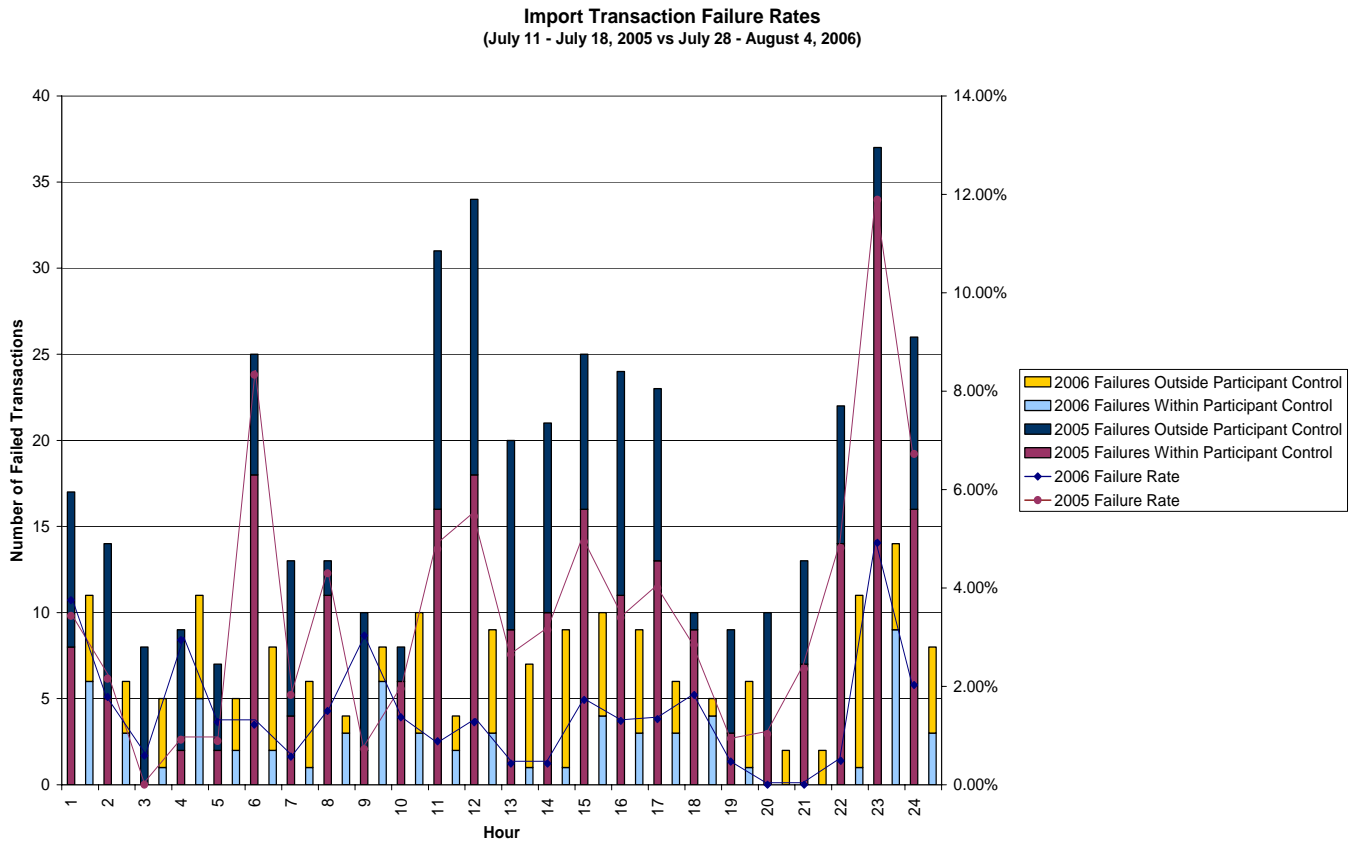
	Number of Transactions	Volume (MWh)	Failures within Participants' Control		Failures Outside Participants' Control	
			Number of Transactions	Volume (MWh)	Number of Transactions	Volume (MWh)
2005	514	58,391	40 or 8%	3,244	30 or 6%	1,591
2006	350	40,330	13 or 4%	1,654	21 or 6%	1,365

**Table 3.3 Total Export Transactions during Peak Periods, July 11 – July 15, 2005 vs. July 28 – August 3, 2006**

	Number of Transactions	Volume (MWh)	Failures within Participants' Control		Failures Outside Participants' Control	
			Number of Transactions	Volume (MWh)	Number of Transactions	Volume (MWh)
2005	96	7,948	18 or 19%	1,821	1 or 1%	25
2006	314	28,625	12 or 4%	1,210	41 or 13%	3,752

Note: The intertie transactions reported above include those scheduled in the DACP and in the real-time market.

Figure 3.1 Import Transaction Failure Rates



### 3.1.3 Emergency Load Reduction Program

The ELRP participants were notified on Monday July 31 for potential activation on August 1 and notified on August 2 for potential day-at-hand activation. The timeline for the day-ahead notification was for hour ending nine until hour ending 20 on August 1. The maximum amount of energy offered was 69.1 MW in hour ending 16. The day at hand notification on August 2 was for hour ending 13 until hour ending 20 and the maximum amount of energy offered was 42.8 MW for hour ending 15. Four of the seven ELRP participants submitted offers to participate.

This was the first opportunity for Market Participants and the IESO to utilize the program and it was good experience for all involved.

On the first day of notifications, the participants experienced a few complications in the offer process but the second day was seamless. Although the ELRP participants were not actually activated during these periods, the availability of their capacity provides another less impactful control action for the IESO to manage reliability.

As of the end of August, 316.8 MW of ELRP load provided by 14 facilities have been registered by 10 market participants.

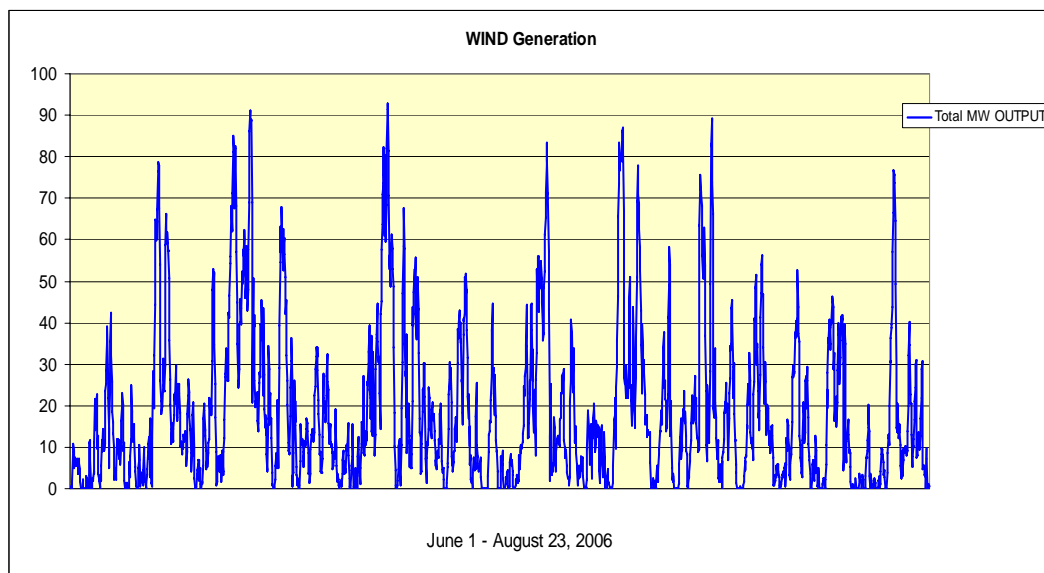
### 3.2 Summer 2006 Reliability Improvements – Material and Condition Changes (summer 2005 vs 2006)

#### 3.2.1 Material Changes

The following is a list of the material changes and how they improved reliability.

- Michigan phase shifters in by-pass mode of operation  
Provided additional import capability on the Michigan interface
- New capacity from Wind  
The following graph shows the total wind energy output from Amaranth located at Shelburne, Port Burwell located on the shore of lake Erie and Kingsbridge located at Goderich

**Figure 3.2 Wind Generation**



- For the months of January through August, available generation capacity from all sources was on average 76% of total installed capacity supply for 2005, and 78% for 2006. On average, this 2% increase in availability represents a capacity of over 600 MW.
- An additional 710 MW of capacity was installed between the summer of 2005 and the summer of 2006.

#### Energy Limited Resources:

The following river systems become energy limited throughout the summer periods: the Madawaska, Ottawa, Moose and Mississauga rivers. During the period between June 1<sup>st</sup> and August 3<sup>rd</sup> 2005, 140,977.8 MWh of energy was produced from these river systems. During the same period in 2006, 201,900.2 MWh of energy was produced. This is a reflection of the improved water conditions of these areas.



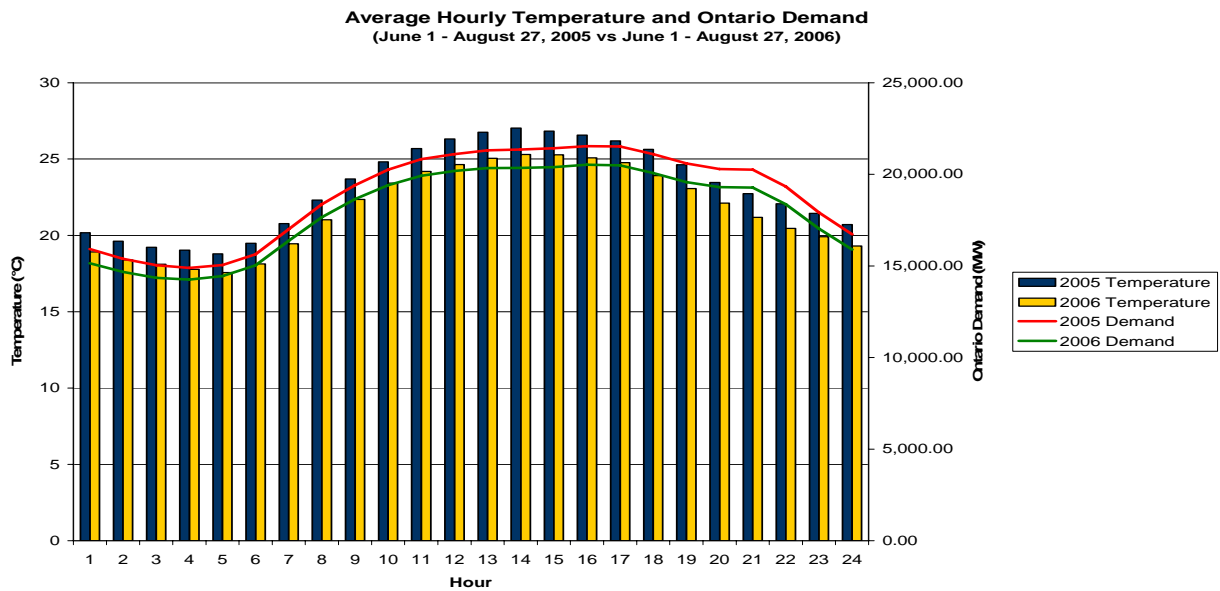
During the heat wave, the performance of Market Participants and generation and transmission resources was excellent. In addition to the specific reliability initiatives discussed, other initiatives and ongoing programs also contributed to the successful management of the record setting demand during the week of July 28 to August 3, 2006. Previous transmission enhancements, generation development and process improvements such as those targeting dispatch issues all helped make this year's "peak week" more manageable for both the Market Participants and the IESO. The collection of initiatives implemented prior to this summer have met most, if not all, of their intended outcomes.

3.2.2 Conditions:

**Weather:**

The following graph compares the weather and its effects on demand for both 2005 and 2006. The average temperature was 6.7% higher in 2005 than in 2006 resulting in an average demand that was 4.8% higher in 2005 than in 2006.

**Figure 3.3 Average Hourly Temperature and Ontario Demand, June 1 to August 27, 2005 and 2006**



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## 4.0 Demand Forecast

The forecast of demand has been updated to reflect the most recent information. As part of the regular updating process, the forecasting models' equations are re-estimated based on recent economic, weather and demand data. The IESO has also updated the Weather scenarios for the most recent weather data. The economic outlook has been updated and the main themes of past outlooks continue to prevail.

- A high dollar and higher energy prices negatively impact Ontario's industries. Lower commodity prices are impacting energy-intensive primary industries.
- Low interest rates continue to fuel consumption, business investment and construction.
- Overall, the outlook is for modest economic growth.

The demand forecast methodology is unchanged from the previous forecast. The demand forecasts are based on Monthly Normal weather.

Annual energy demand is expected to shrink by 0.2% in 2006 before rebounding due to the loss of energy-intensive industrial demand. A stronger economy in 2007 with better performance across all sectors of the economy will lead to a rebound in electricity demand growth of 1.5% over 2006. The winter 2006-07 Monthly Normal peak demand is expected to be 24,677 MW. The Monthly Normal summer 2007 peak is expected to be 25,615 MW. The growth in energy and peak demands varies across the zones due to local demographic and economic factors that influence demand.

### Demand Forecast Assumptions

The adequacy assessments contained in this Outlook take into consideration a range of peak demands that can occur under various weather conditions with varying probability of occurrence. The IESO focuses on two demand forecast scenarios, which are based on:

- Monthly Normal weather; and
- Extreme weather.

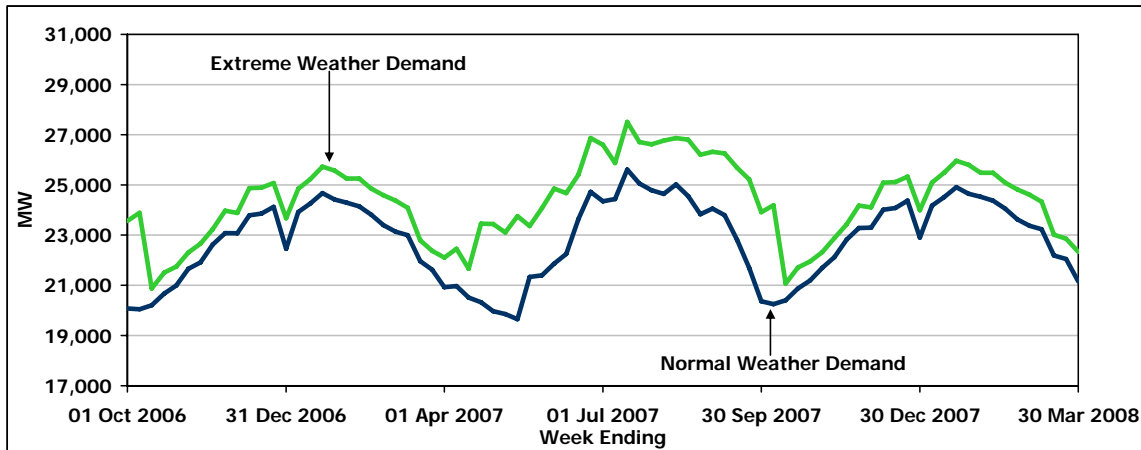
The occurrence and timing of extreme weather is impossible to accurately forecast far in advance. As a result, the impact of extreme weather is modeled probabilistically in the calculation of the required resources for each week of the study period.

Over time, there is a certain amount of natural conservation that occurs. Examples include less efficient appliances being replaced by more efficient ones, homes and buildings with better insulation replacing older structures and businesses altering their operations to reduce their exposure to higher electricity prices. These types of reductions are reflected in the IESO's demand forecast.

Higher levels of conservation or demand management require more direct intervention in the form of incentives, standards or other mechanisms. The results of these initiatives can be substantial and will be included in future Outlooks as conservation and demand management programs are developed and implemented.

Figure 3.1 shows the Monthly Normal and Extreme weather demands assumed for each week in the study period.

Figure 4.1 Demand Forecast Range



For purposes of identifying the peak demand that would be expected over a given season, the IESO produces a forecast based on Seasonal Normal weather. Daily, weekly and monthly peak demands are best represented by a demand forecast based on Monthly Normal weather. Therefore, the Monthly Normal weather demand forecast, combined with a measure of uncertainty due to variations in weather, is used for operational planning decisions. The peak demand forecast and the uncertainty surrounding it influence the amount of reserves required to maintain reliability on the system.

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## 5.0 Resource Adequacy Assessment

This section provides an assessment of the adequacy of resources to meet the forecast demand. In recognition of the uncertainty which exists regarding the future availability of resources, two resource scenarios are described in this section: the Planned Resource Scenario and the Existing Resource Scenario.

The Planned Resource Scenario assumes quantities of price-responsive demand and generation capacity based on existing resources and estimates of in-service dates for new projects.

The Existing Resource Scenario considers the potential for delays to the in-service dates of additional new generation capacity and of price-responsive demand by being based on current levels only. However, this scenario does assume small generation capacity increases to some existing nuclear generation facilities.

Results of the adequacy assessment, as well as an analysis of risk factors, are described in Sections 5.1 through 5.5. Observations, findings and conclusions are provided in Section 7, and detailed tables of results can be found in Appendix A of this document.

### 5.1 Planned Resource Scenario with Normal and Extreme Weather

#### Resource Assumptions

The Planned Resource Scenario assumes quantities of price-responsive demand and generation capacity based on existing resources plus significant new generation facilities that are scheduled to come into service within the 18-month study period. These include:

- Existing Installed Resources: total capacity of 31,094 MW (refer to Table 5.1)
  - Assumed to be in-service for the entire duration of the study period, except for periods of time that the generator owner/operator has submitted planned outages for their generating units.
- Changes to generation facilities and capacity changes to the existing facilities expected to be effective within the 18-month study period (refer to Table 5.2)
  - Includes generation projects in the IESO's Connection Assessment and Approval Process (CAA)<sup>1</sup> that are under construction, embedded generators that are registered to participate in the market, and projects selected under the Ontario Power Authority's RFP process.
  - The estimated effective date shown in Table 5.2 indicates the date on which additional capacity is assumed to be available to meet Ontario demand. For projects that are under RFP contract, the estimate effective date is the best estimate of the date when the contract requires the additional capacity to be available. In the event that an RFP project is delayed, such that the commercial in-service date is expected to be later than the RFP contract date, the estimated

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<sup>1</sup> Details regarding the IESO's CAA process and the status of all projects in the CAA queue, including copies of available Preliminary Assessment and System Impact Assessment Reports, can be found on the IESO's web site [www.ieso.ca](http://www.ieso.ca) under the "Services - Connection Assessments" link.

effective date will be the best estimate of the commercial in-service date for the project.

- Price-responsive demand forecast:
  - Table 5.3 summarizes the changes to the capacity equivalent from price-responsive demand over the course of the forecast.
  - Both dispatchable demand and price-responsive demand under contract are considered in dependable demand response capability.
  - price-responsive demand is forecast based on market participant information and actual market experience.
  - Based on historical data, it is assumed that 56.4% of price responsive demand is available at the time of the weekly peak.
  - The Transitional Demand Response Program is assumed to end March 2007.

**Table 5.1 Existing Installed Generation Resources**

Fuel Type	Total Capacity (MW)	Number of Stations
Nuclear	11,414	5
Coal	6,434	4
Oil / Gas	5,103	22
Hydroelectric	7,768	68
Wind	305	4
Miscellaneous	70	4
<b>Total</b>	<b>31,094</b>	<b>107</b>

**Table 5.2 Committed and Contracted Generation Resources**

Proponent/Project Name	Zone	Fuel Type	Capacity MW	Estimated Effective Date
Prince II Wind Power Project	Northeast	Wind	90	2006
Nuclear Uprate	N/A	Uranium	5	2006-Q4
Trail Road Landfill Gas	Ottawa	Landfill Gas	5	Early 2007
Goreway Station Phase I	Toronto	Gas	485	Summer 2007
Underwood WGS (formerly Leader Wind Power Projects A & B)	Southwest	Wind	200	2007
Nuclear Uprate	N/A	Uranium	27	2007-Q3
Ripley Wind Power Project	Southwest	Wind	76	2007-Q4
<b>Total</b>			<b>888</b>	

**Table 5.3 Demand Side Projects**

Project	Type	Zone	Capacity MW	Estimated In-Service Date
Demand Response	Dispatchable Demand	Southwest	30	2006-Q4
Demand Response	Dispatchable Demand	Northeast	25	2006-Q4
Demand Response	Dispatchable Demand	Northeast	100	2006-Q4
Demand Response	Dispatchable Demand	Northeast	10	2007-Q4
Transitional Demand Response Program	Dispatchable Demand	Distributed	-31	2007-Q2
<b>Total</b>			<b>134</b>	

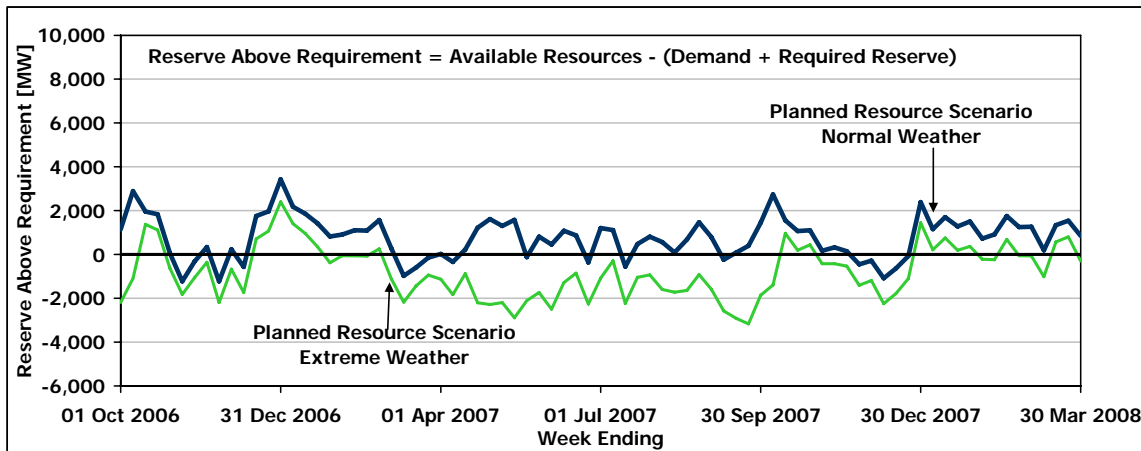
With respect to forecasts of generation capabilities, the assumptions are as follows:

- Hydroelectric capability based on median historical values of hydroelectric production and contribution to operating reserve during weekday peak demand hours
- Capacity and energy contributions from thermal generators based on market participants submissions, including planned outages, expected forced outage rates and seasonal deratings
- Capacity at the time of peak and total energy contributions from wind-powered generation assumed to be 10% and 30%, respectively

**Weekly Adequacy Assessments**

Reserve Above Requirement levels, which represent the difference between Available Resources and Required Resources, are shown in Figure 5.1.

**Figure 5.1 Reserve Above Requirement: Planned Resource Scenario – Normal vs. Extreme Weather**



## 5.2 Existing Resource Scenarios with Normal and Extreme Weather

### Resource Assumptions

The Existing Resource Scenario assumes quantities of price-responsive demand and generation capacity based on existing resources and capacity increases to the existing generation facilities. This includes:

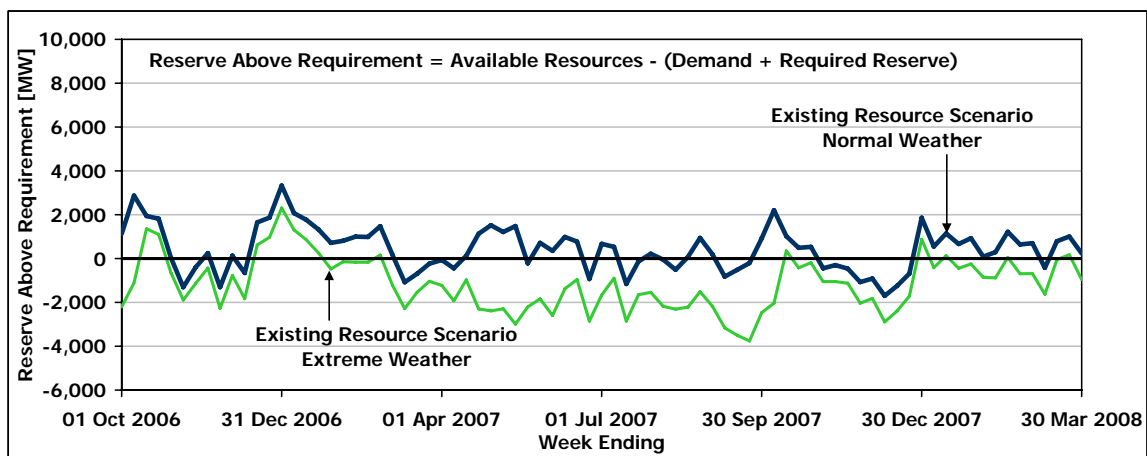
- Existing Installed Resources: total capacity of 31,094 MW(refer to Table 5.1)
  - Assumed to be in-service for the entire duration of the study period, except for periods of time that the generator owner/operator has submitted planned outages for their generating units.
- Capacity increases to the existing facilities expected to be in-service within the 18-month study period (refer to Table 5.2, items which indicate “uprate”)
- Price-responsive demand forecast:
  - 338 MW of price-responsive demand capability for the entire period.

With respect to forecasts of generation capabilities, the existing resource scenario is based on the same assumptions as the planned resource scenario.

### Weekly Adequacy Assessments

Reserve Above Requirement levels, which represent the difference between Available Resources and Required Resources, are shown in Figure 5.2.

**Figure 5.2 Reserve Above Requirement: Existing Resource Scenario – Normal vs. Extreme Weather**



## 4.3 Comparison of Resource Scenarios

Table 5.4 shows a snapshot of the forecast available resources, under the two scenarios, at the time of the seasonal peak demands over the study period. The installed resources in Table 5.4 start with the values listed in Table 5.1. The installed resources in Table 5.4 increase over the study timeframe, due to some uprates to the forecast net installed capacity of existing generation



facilities. For the Planned Resource Scenario only, resources are also increased by the generation additions listed in Table 5.2. The total reductions to resources include generator deratings, generator planned outages under each resource scenario, capacity limitations due to transmission interface constraints and allowances for hydroelectric generation production below rated capacity. The total reductions were subtracted and the price-responsive demand was added to the total resources, to obtain the available resources. In this Outlook, price-responsive demand ranges from 355 MW to a maximum of 433 MW under the Planned Resource Scenario, as shown in Table 5.4.

The monthly forecast of energy production capability, as provided by market participants, is included in Appendix A, Table A6.

**Table 5.4 Summary of Available Resources**

Notes	Description \ Year	Winter Peak 2007		Summer Peak 2007		Winter Peak 2008	
		Existing Resource Scenario	Planned Resource Scenario	Existing Resource Scenario	Planned Resource Scenario	Existing Resource Scenario	Planned Resource Scenario
1	Installed Resources (MW)	31,099	31,189	31,099	31,879	31,126	31,982
2	Imports (MW)	0	0	0	0	0	0
3	Total Resources (MW)	31,099	31,189	31,099	31,879	31,126	31,982
4	Total Reductions in Resources (MW)	2,043	2,124	2,917	3,183	2,549	2,884
5	Price-responsive Demand (MW)	338	427	338	427	338	433
6	Available Resources (MW)	29,394	29,492	28,520	29,123	28,915	29,531

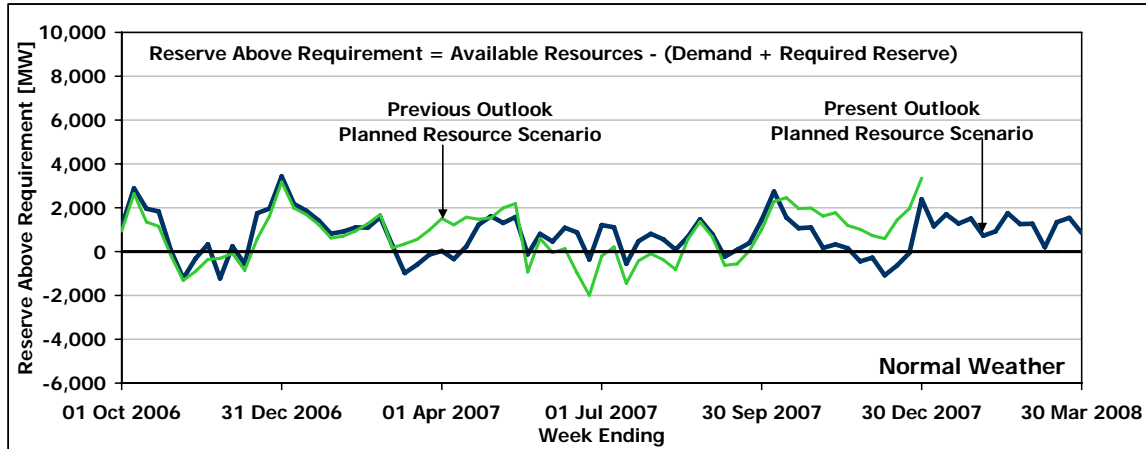
**Notes to Table 5.4:**

1. Installed Resources (MW): This is the total capacity of the generation resources in Ontario assumed to be installed at the time of the summer and winter peaks in the 18 month time span. Initially, this value includes all generators registered to participate in the IESO-administered markets at the beginning of the 18 month study period. It also reflects any minor unit re-ratings resulting from equipment changes that may have been completed prior to the publication of this Outlook. Additional generation capacity that was assumed under the applicable resource scenario is progressively included, according to the estimated in-service dates.
2. Imports (MW): Represents the amount of external capacity considered to be delivered to Ontario.
3. Total Resources (MW): This is the sum of Installed Resources (line 1) and Imports (line 2).
4. Total Reductions in Resources (MW): These reductions represent the sum of generator deratings, generator planned outages, generation limitations due to transmission interface constraints, generation constraints due to transmission outages/limitations and allowance for generation capability levels below rated installed capacity. In the case of wind generation, it is assumed that 10% of the installed capacity is available at the time of peak, so 90% of the installed capacity is counted in the total reduction in resources. Hydroelectric capability is based on historic levels of production and contributions to operating reserve.
5. Price-responsive Demand: This is the amount of demand which is assumed to respond to changes in the market clearing price by reducing consumption, under each resource scenario.
6. Available Resources (MW): This equals Total Resources (line 3) minus Total Reductions in Resources (line 4) plus Price-responsive Demand (line 5).

## Weekly Adequacy Assessments

Figure 5.3 provides a comparison between the forecast Reserve Above Requirement values in the present Outlook and the forecast Reserve Above Requirement values in the previous Outlook published on June 23, 2006.

**Figure 5.3 Reserve Above Requirement: Planned Resource Scenario vs. Previous Planned Resource Scenario**



## 5.4 Resource Adequacy Risks

The forecast reserve levels for both the Planned Resource Scenario and the Existing Resource Scenario should be assessed bearing in mind the risks discussed below.

### 5.4.1 Extreme Weather

The Existing Resource Scenario and the Planned Resource Scenario are based on the assumption of normal (average) weather. However, peak demands in both summer and winter typically occur during periods of extreme weather. Unfortunately, the occurrence and timing of extreme weather is impossible to accurately forecast far in advance. As a result, the impact of extreme weather is modeled probabilistically in the calculation of the required resources for each week of the study period. The impact of extreme weather was demonstrated in the first week of August 2006, when Ontario established an all-time record demand of 27,005 MW. Over 3,000 MW of this demand was due to the higher than average heat and humidity.

In order to illustrate the impact of extreme weather on forecast reserve levels during the Outlook period, both the Existing Resource Scenario and the Planned Resource Scenario were re-calculated assuming extreme weather in each week instead of normal weather. The probability of this occurring in every week is very small; however the probability of an occurrence in any given week is greater (about 2.5 percent). Over the course of the Outlook period (18-Months) you will observe at least one day of extreme weather. When one looks at the entire summer or winter periods, the expectation of at least one period of extreme weather becomes very likely.

The magnitude of resource deficiencies, under extreme weather, clearly illustrates there are circumstances under which reliance on interconnected supply is likely. This emphasizes the continued need for reliable supply and demand response within Ontario.

#### 5.4.2 New Resource Risks

For the 18 month period under study, the improved demand-supply situation for the Planned Resource Scenario is dependent on the additional generation and price-responsive demand coming into service as forecast. Given the amount of new supply and transmission enhancements required in such a short period of time, timely regulatory approvals processes are required. Serious consideration needs to be given to developing expedited, but thorough, approvals processes to ensure timely completion of the new facilities.

#### 5.4.3 Extensions to Generator Planned Outages

A number of large generating units are scheduled to return to service from outage prior to winters 2006/2007 and 2007/2008 and summer 2007. Meeting these schedules is critical to maintaining adequate reserve levels. Delays in returning generators to service from maintenance outages could lead to reliance on imports and/or cancellation of planned generator outages.

In the event that generator outages must be delayed due to reliability concerns, it will be necessary for outages to be rescheduled to a more suitable time period. However outage rescheduling could stretch the ability of generator owners/operators to accommodate larger amounts of outages over shorter time periods and may increase forced outage occurrences. Operational experience so far indicates generator owners are usually able to adapt their outage plans. However, the dual peaking nature of the Ontario system (roughly equivalent peaks in winter and summer) means that outages must be scheduled in shorter spring and fall periods. Inevitably this means that some long duration outages have to be scheduled into the start of the peak seasons, creating the potential that any extensions of these outages occur when the generation is most needed.

#### 5.4.4 Higher than Forecast Generator Unavailability

IESO resource adequacy assessments include a probabilistic allowance for random generator forced outages based on generator reliability information provided by market participants, or on industry-wide data for similar facilities. Along with weather-related demand impacts, the impact of generator forced outages is included in the determination of required resources.

#### 5.4.5 Lower than Forecast Hydroelectric Resources

IESO resource adequacy assessments include hydroelectric generation outputs based on median historical values of hydroelectric production plus operating reserve during weekday peak demand hours and energy capability provided by market participants. The amount of available hydroelectric generation is greatly influenced both by water-flow conditions on the respective river systems and by the way in which water is utilized.

Water-flow conditions are primarily influenced by the amount of precipitation received. To accurately forecast precipitation amounts far in advance is little better than chance. Drought conditions over some or all of the study period would lower the amount of generation available from hydroelectric resources. Low water conditions can result in significant challenges to maintaining reliability, such as the reliability challenges of the summer of 2005.

#### 5.4.6 Wind Resource Risks

Wind generator output varies on a continuous basis due to the variability of wind. This Outlook assumes that 10% of the installed capacity of wind power generators is available at the time of the weekly peak. There is a risk that wind power output could be less than 10% at the time of the weekly peak if:

- the wind isn't blowing, or
- extreme cold weather or wind speeds necessitate that wind generator output be curtailed to prevent equipment damage.

The geographic diversity of Ontario wind resources would mitigate some of the risk associated with wind speed variability. Studies are underway to determine appropriate assumptions for wind power capacity values at the time of peak demands in Ontario.

#### 5.4.7 Capacity Limitations

There is a risk that any given generator may not be capable of producing the maximum capacity that the market participant has forecast to be available at the time of peak demand. There may be several reasons for these differences.

Forecast models include an equivalent forced outage rate, that is intended to capture the random nature of generator capacity limitations, deratings, and forced outages. There is a risk that actual outages and deratings may be higher than forecast, and there is also a risk that certain types of deratings or outages may not be completely random. Some outages and deratings, such as environmental limitations, may be more likely to occur at roughly the same time as the extreme weather conditions which drive peaks in demand.

In addition, the forecast models assume that the maximum capacity of any given generator may be utilized fully at the time of the Ontario peak demand, although there are risks that the maximum capability of all generating resources may not be available in the same peak hour, due to interrelationships between generating resource fuel availability.

#### 5.4.8 Transmission Constraining Resource Utilization

There is a risk that transmission constraints occur more often than expected, or have greater impact than expected on the ability to deliver generation to load centres. A limited number of transmission limitations are modeled without all probabilities of failure included. There is a risk that certain transmission limitations, which are not modeled, may have a greater impact than forecast and/or failures could occur to significantly impact the utilization of resources, until such equipment is repaired or replaced. There is also a risk that these limitations may not be due to completely random outages but can occur under the same conditions which create high demand. For example during periods of time when there is little wind, hot weather results in reduced transmission limits. This can affect the utilization of internal generation and imports from neighbouring systems.

#### 5.4.9 Failure of Import Transactions

There is a risk that import transactions scheduled with neighbouring markets fail to be delivered. These failures represent expected supply that is suddenly not available in real-time. The failures are especially problematic due to the timing and size of the failures. The implementation of the

Day Ahead Commitment Process since June 2006 provides more certainty that these imports will be delivered in real-time.

**- End of Section -**

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## 6.0 Transmission Reliability Assessment

This section provides an assessment of the reliability of the Ontario transmission system.

### 6.1 Transmission Projects

Planned transmission projects, that are identified by transmitters and that have a significant impact and that have an estimated in-service date within the 18 month period under study are listed in Appendix B by transmission zone. These transmission projects do not include all transmission projects submitted to the IESO for Connection Assessments and Approval. Only those projects that are considered significant are included. To make cross referencing easier, the CAA-ID number of each project has been included where available. In general, the work listed represents some or all of the work associated with the CAA-ID.

Additional information regarding each of the transmission projects in the CAA queue can be found at the IESO's [Connection Assessments](http://www.ieso.ca/imoweb/connAssess/ca.asp) web-page, at the following location:  
<http://www.ieso.ca/imoweb/connAssess/ca.asp>.

### 6.2 Planned Transmission Outages

A principal purpose of the transmission reliability assessment is to forecast any reduction in transmission capacity brought about by specific transmission outages. For a major transmission interface or interconnection, the reduction in transmission capacity due to an outage condition can be expressed as a change in the base flow limit associated with the interface or interconnection. Another purpose of the transmission reliability assessment is to identify the possibility of any security-related events on the IESO-controlled grid that could require contingency planning by market participants or by the IESO. As a result, the transmission outages are reviewed to identify transmission system reliability concerns and to highlight those outages that should be rescheduled or changed. As an example, a change to an outage may include reducing the scheduled duration or recall time.

The assessment of transmission outages will also identify any resources that have potential or are forecast to be constrained due to transmission outage conditions. The identification of a constrained resource is generally not reflected in the assessment of weekly resource adequacy, which is detailed in Section 5.1, since there is typically sufficient outage scheduling flexibility to avoid constraining off resources when such resources are needed for reliability. Transmitters and generators are expected to have a mutual interest in developing an ongoing arrangement to coordinate their outage planning activities. Transmission outages that may affect generation access to the IESO-controlled grid should be coordinated with the generator operators involved, especially at times when the forecast of reserve is deficient. Under the Market Rules, where the scheduling of planned outages by different market participants conflicts such that both or all outages cannot be approved by the IESO, the IESO will inform the affected market participants and request that they resolve the conflict. If the conflict remains unresolved, the IESO will determine which of the planned outages can be approved according to the priority of each planned outage as determined by the Market Rules detailed in Chapter 5, Sections 6.4.13 to 6.4.18.

For this Outlook, transmission outage plans submitted to the IESO's Integrated Outage Management System (IOMS) as of the third week in August 2006 were used.

The IESO's assessment of the impact of the transmission outage plans is shown in Appendix C, Tables C1 to C10. In these tables, each element is assessed individually by indicating the possible impacts and the reduction in transmission interface and/or interconnection limits. The methodology used to assess the transmission outage plans is described in the IESO document titled "Methodology to Perform Long Term Assessments" (IESO\_REP\_0266).

A few of the transmission outages planned within the timeframe of this Outlook are judged to have a material impact on the overall reliability of the IESO-controlled grid as indicated in Appendix C.

The assessment of transmission outages for this Outlook has been limited to those outages with a scheduled duration of greater than five days or to those outages associated with a project where there is a significant collection of outages which have a combined scheduled duration of greater than five days. The IESO recognizes that there are expected to be additional outage requirements and/or changes as time approaches the Outlook study period and that transmission capacity will be impacted by outages with a scheduled duration of five days or less. Prior to approving and releasing an outage, the IESO will reassess the outage for potential system impacts, taking into account all current and forecasted conditions.

The large number of system changes identified to be completed in the Ontario Reliability Outlook and this 18-Month assessment will require a substantial number of planned outages to incorporate the new facilities.

### **6.3 Adequacy of the Existing Transmission System**

The Ontario transmission system is expected to be adequate to supply the coming summer's demand under the forecast conditions.

Previous IESO Outlooks identified various areas of the IESO-controlled grid where the projected extreme weather loading is expected to approach or exceed the capability of the transmission facilities in the planning period. This could result in congestion of low-priced resources that must be replaced by higher priced resources, and would increase costs to market loads. Where the loading was projected to exceed the capability of the transmission facilities, there is an increased risk of load interruptions.

IESO continues to work with Hydro One, to identify the highest priority transmission needs, and to ensure that those projects whose in-service dates are at risk are given as much priority as is practical, especially those addressing reliability needs for summer 2007. IESO has also been working closely with the Ontario Power Authority to specify the locations, timing and minimum generation requirements to satisfy reliability standards.

For summer 2007, the following areas of the grid are expected to be improved over last summer, and to provide an increased level of reliability.

#### **6.3.1 City of Toronto and Western GTA**

The transmission capability into the GTA has been enhanced with the completion of Parkway TS. The restoration of the normal rating on a 500/230 kV 750 MVA autotransformer at Trafalgar is expected to provide sufficient capability at the station for the forecast conditions.



An autotransformer at Cherrywood TS, which currently has a significant derating, is scheduled to be replaced in the fall of 2006 and will further enhance the load supply to central Toronto well before the summer 2007 peak period.

For some hours in summer 2006, although less frequently than 2005, the Claireville TS autotransformers were loaded above their continuous ratings, relying on their long-term emergency ratings to supply the demand in the western GTA. Timely completion of the Goreway Station Phase One will reduce the loading on these autotransformers in summer 2007, and reduce the risk of overloading in the event of a long-term failure of one of these autotransformers

To connect the Portlands Energy Centre into the Hearn switching station will require extensive equipment outages in the period before summer 2008. In the fall of 2006, two cables supplying the downtown Toronto area will be required out of service as part of this work. An analysis of the demand forecast shows that the expected demand can be supplied reliably for the period of the planned maintenance. However, the available "window" to perform this work is very limited, as there are few periods of sufficiently low demand to reliably perform the work, and the project timeline depends on a large volume of equipment outages proceeding as scheduled or risk delays to the in-service date of the Portlands Energy Centre.

Completion by Hydro One of the John Transformer Station (TS) to Esplanade TS link by the fall of 2007 will also enhance reliability to central Toronto by increasing the capability to transfer some loads from their normal supply east of the city, to an alternate supply from the west, and vice versa.

### 6.3.2 Beck-Middleport-Hamilton/Burlington circuits (QFW)

The Niagara transmission expansion project will add a new 230 kV double-circuit line between Allanburg TS, in the Niagara peninsula, and Middleport TS southwest of Hamilton. The project, originally scheduled for June 2006, continues to be delayed due to unforeseen circumstances. Once in service it will increase the capability of the transmission system connecting the Niagara River generation at Queenston to the grid in the Hamilton area by about 800 MW. This enhancement will also permit increased imports from New York of at least 350 MW, and up to 800 MW depending on the load and generation dispatch in Ontario.

### 6.3.3 St. Lawrence to Hinchinbrooke

Summer 2005 operation exhibited very heavy loading on the 230 kV circuits westward from St. Lawrence TS to Hinchinbrooke TS. An existing Special Protection System at St. Lawrence was modified for summer 2006, allowing increased westward transfers, and is planned to be enhanced further before summer 2007, to increase its functionality and to make it more reliable under peak load conditions, to maximize simultaneous import capability from Hydro Quebec and New York.

### 6.3.4 Lambton-Sarnia Generation

To prepare the power system to reliably incorporate additional generation facilities around the Lambton area, including the St. Clair Power and Greenfield Energy Centre, extensive work needs to be completed at the Lambton switchyard to connect the new generation facilities, and to

manage the expected short circuit levels when new generation facilities at St. Clair Power and Greenfield Energy Centre begin their commissioning activities, at the same time that generating units at Lambton continue to operate. To complete the work on time, a large volume of equipment outages must proceed as scheduled, or risk delays to the replacement generation for Lambton coal capacity.

Examination of outages in this area have revealed several days when transmission work requires specific Lambton generating units to be off line, thus reducing the available generation to supply Ontario demand. Specific transmission outages that are expected to materially restrict Lambton generation have been reflected in lower availability of Lambton generation. The Reserve Above Requirement values will also be lower, as a result.

#### 6.3.4 Michigan Phase Angle Regulators

Phase angle regulators (PARs) are installed on the Michigan-Ontario interconnection but are not available to regulate flows except in emergencies, pending agreement by the International Transmission Company in Michigan to permit full regulation.

The inability to regulate flows combined with limiting ratings on the PAR equipment can result in significant congestion of imports from the Michigan direction. This was experienced in summer 2005. Before summer 2006, the IESO, the Midwest ISO, Hydro One and International Transmission Company, agreed to temporarily bypass the phase angle regulators for normal operation until an agreement is reached to make full use of their regulating capability. Bypassing the PARs increases Ontario's transfer capability to and from Michigan by 300 to 350 MW in the summer and by about 400 MW in the winter.

Full regulating capability on the Michigan interface combined with increased import capability from the Niagara direction following completion of the Niagara expansion project, will provide a significant increase in the combined import capability from New York and Michigan.

#### 6.3.5 Great Lakes Power Transmission Expansion

In June of 2006, GLP's Wawa to Third Line 230 kV circuit was completed. The addition of this circuit has increased the transfer capability eastward from Wawa, has unrestricted Brookfield generation in the vicinity of Wawa TS, and has increased the reliability of supply to Sault St. Marie by providing a third 230 kV transmission circuit into the city. The new circuit also serves as the connection point for both phases of the Prince Wind Project. The increase in available generation resources resulting from these transmission enhancements has led to congestion on the transmission system east of Sault St. Marie. The IESO will be reviewing the existing operating limits in that area, to reduce congestion to the extent possible.

**- End of Section -**

## 7.0 Conclusions

The following conclusions are based on the results of the assessment carried out for this Outlook.

### Resource Adequacy

- Under the Planned Resource-Normal Weather Scenario, forecast reserves within Ontario are sufficient to meet requirements for 62 of 79 Weeks in the study period. Reserves are forecast to be below requirements for 17 weeks of the Outlook timeframe. Where this situation occurs, Ontario may need to rely on external supplies. During other periods where planned maintenance is the most significant contributor to lower reserves, some planned generator outages are at risk of cancellation by the IESO, for reliability reasons, depending on their priority and the resource adequacy situation at the time their approval is being sought. Opportunities will exist for additional planned generator maintenance and exports in the other weeks of the Outlook period where reserves exceed requirements.
- Under the Existing Resource-Normal Weather Scenario, the reserves are forecast to be below requirements for 27 weeks of the Outlook timeframe. Extreme weather during the peak periods will result in significantly increased reliance on imports to supplement Ontario generation and higher potential for use of emergency operating procedures.
- Results of the resource adequacy assessment are summarized in the matrix below. The different shadings are intended to suggest the degree of concern regarding the supply/demand situation under each resource-weather scenario combination.

	Normal Weather Scenario	Extreme Weather Scenario
Planned Resource Scenario	<ul style="list-style-type: none"> <li>- there are 17 weeks when reserves are lower than required (planned outages at risk or imports potentially required)</li> <li>- opportunities for additional outages/exports exist in most other weeks</li> </ul>	<ul style="list-style-type: none"> <li>- many planned outages at risk</li> <li>- imports required during some peak periods</li> <li>- higher risk of requiring emergency operating procedures up to and including rotational load shedding</li> </ul>
Existing Resource Scenario	<ul style="list-style-type: none"> <li>- there are 27 weeks when reserves are lower than required (planned outages at risk or imports potentially required)</li> <li>- opportunities for additional outages/exports exist in many other weeks</li> </ul>	<ul style="list-style-type: none"> <li>- many planned outages at risk</li> <li>- imports required during some peak periods</li> <li>- higher risk of requiring emergency operating procedures up to and including rotational load shedding</li> </ul>

- The magnitude of resource deficiencies under both normal and extreme weather emphasizes the continued need for additions of reliable supply and demand response within Ontario.
- For the 18 month period under study, the improved demand-supply situation for the Planned Resource Scenario is dependent on the additional generation and price-responsive demand coming into the market as forecast.

- A number of large generating units are scheduled to return to service from outage prior to the winters 2006/2007 and 2007/2008 and summer 2007. Meeting these planned outage schedules is critical to maintaining adequate reserve levels over the peak seasons.
- High generator unavailability, whether caused by higher forced outage rates or delays in returning generators to service, could lead to greater reliance on imports. Under these circumstances, opportunities for planned outages, especially during the peak summer period, would be limited.
- Over the 18 month period under study, the Northeast Power Coordinating Council resource adequacy criterion is expected to be met. As permitted, to meet the criterion, the IESO forecast considers periodic reliance on interconnection benefits and potential use of other operating actions including outage rescheduling and emergency operating procedures.
- Extreme weather during peak periods places increased emphasis on reliable Ontario resources and energy imported from neighbouring systems. To maximize the ability to respond to these peak period requirements the following actions have been implemented:
  - Day Ahead Commitment Process, to allow imports to be scheduled and to commit units day ahead, facilitating better planning with the markets surrounding Ontario
  - Emergency Load Reduction Program, to give consumers incentives to reduce their loads, like the markets surrounding Ontario

### **Transmission Adequacy**

- The Ontario transmission system is expected to be adequate to supply the coming summer's demand under the forecast conditions.
- The transmission capability into the GTA has been enhanced with the completion of Parkway TS and the restoration of the normal rating on a 500/230 kV 750 MVA autotransformer at Trafalgar. The planned replacement of an autotransformer at Cherrywood TS, scheduled for the fall of 2006 will further enhance the load supply to central Toronto well before the summer 2007 peak period.
- Timely completion of the Goreway Station Phase One will reduce the loading on the Claireville TS autotransformers in summer 2007, and reduce the risk of overloading in the event of a long-term failure of one of these autotransformers
- To connect the Portlands Energy Centre into the Hearn switching station will require extensive equipment outages that can be scheduled only during limited periods but must proceed on schedule or risk delays to the in-service date of the project.
- Completion by Hydro One of the John Transformer Station (TS) to Esplanade TS link by the fall of 2007 will also enhance reliability to central Toronto by increasing the capability to transfer some loads from their normal supply east of the city, to an alternate supply from the west, and vice versa.
- The Niagara transmission expansion project, originally scheduled for June 2006, continues to be delayed due to unforeseen circumstances. Once in service it will increase the capability of the transmission system connecting the Niagara River generation at Queenston to the grid in the Hamilton area by about 800 MW, and will permit increased imports from New York of at up to 800 MW depending on the load and generation dispatch in Ontario.

- An existing Special Protection System at St. Lawrence TS was modified for summer 2006, allowing increased westward transfers, and is planned to be enhanced further before summer 2007, to increase its functionality and to make it more reliable under peak load conditions, to maximize simultaneous import capability from Hydro Quebec and New York.
- Extensive work needs to be completed at the Lambton switchyard to connect the new St. Clair Power and Greenfield Energy Centre generation projects. To complete the work on time, a large volume of equipment outages must proceed as scheduled, or risk delays to the replacement generation for Lambton coal capacity. Some of these outages will restrict the output of the existing Lambton generation, reducing the resources available to supply Ontario demand during those periods.
- Phase angle regulators (PARs) are installed on the Michigan-Ontario interconnection but are temporarily bypassed until an agreement is reached to make full use of their regulating capability.
- In June of 2006, GLP's Wawa to Third Line 230 kV circuit was completed. The addition of this circuit has increased the transfer capability eastward from Wawa, has unrestricted Brookfield generation in the vicinity of Wawa TS, and has increased the reliability of supply to Sault St. Marie by providing a third 230 kV transmission circuit into the city. The new circuit also serves as the connection point for both phases of the Prince Wind Project. The increase in available generation resources resulting from these transmission enhancements has led to congestion on the transmission system east of Sault St. Marie. The IESO will be reviewing the existing operating limits in that area, to reduce congestion to the extent possible.

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# Appendix A Resource Adequacy Assessment Details

Table A1 Assessment of Resource Adequacy: Normal Weather,  
Existing Resource Scenario

Week Ending Day	Total Resources MW	Total Reductions in Resources MW	Price-responsive Demand MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
01-Oct-06	31,094	6,769	338	24,663	23,537	22.8	4,586	17.2	3,460	1,126
08-Oct-06	31,094	5,187	338	26,245	23,373	30.9	6,200	16.6	3,328	2,872
15-Oct-06	31,094	6,263	338	25,169	23,232	24.6	4,969	15.0	3,032	1,937
22-Oct-06	31,094	5,768	338	25,664	23,846	24.2	4,992	15.4	3,174	1,818
29-Oct-06	31,094	7,187	338	24,245	24,208	15.5	3,253	15.3	3,216	37
05-Nov-06	31,099	7,834	338	23,603	24,903	9.0	1,948	15.0	3,248	-1,300
12-Nov-06	31,099	6,689	338	24,748	25,150	12.9	2,835	14.8	3,237	-402
19-Nov-06	31,099	5,384	338	26,053	25,807	15.2	3,431	14.1	3,185	246
26-Nov-06	31,099	6,339	338	25,098	26,406	8.7	2,017	14.4	3,325	-1,308
03-Dec-06	31,099	5,179	338	26,258	26,122	13.8	3,186	13.2	3,050	136
10-Dec-06	31,099	5,054	338	26,383	27,042	10.9	2,593	13.7	3,252	-659
17-Dec-06	31,099	2,644	338	28,793	27,142	20.7	4,937	13.8	3,286	1,651
24-Dec-06	31,099	2,112	338	29,325	27,457	21.6	5,201	13.8	3,333	1,868
31-Dec-06	31,099	2,291	338	29,146	25,814	29.8	6,687	14.9	3,355	3,332
07-Jan-07	31,099	2,054	338	29,383	27,309	22.8	5,462	14.2	3,388	2,074
14-Jan-07	31,099	2,043	338	29,394	27,631	21.2	5,137	13.9	3,374	1,763
21-Jan-07	31,099	2,043	338	29,394	28,073	19.1	4,717	13.8	3,396	1,321
28-Jan-07	31,099	2,875	338	28,562	27,844	17.0	4,142	14.0	3,424	718
04-Feb-07	31,099	2,935	338	28,502	27,690	17.4	4,213	14.0	3,401	812
11-Feb-07	31,099	2,950	338	28,487	27,487	18.0	4,344	13.9	3,344	1,000
18-Feb-07	31,099	3,408	338	28,029	27,038	17.7	4,214	13.5	3,223	991
25-Feb-07	31,099	3,425	338	28,012	26,545	19.8	4,620	13.5	3,153	1,467
04-Mar-07	31,099	4,819	338	26,618	26,442	15.1	3,487	14.3	3,311	176
11-Mar-07	31,099	6,192	338	25,245	26,326	9.8	2,253	14.5	3,334	-1,081
18-Mar-07	31,099	6,947	338	24,490	25,185	11.5	2,529	14.7	3,224	-695
25-Mar-07	31,099	6,947	338	24,490	24,730	13.3	2,871	14.4	3,111	-240
01-Apr-07	31,099	7,452	338	23,985	24,057	14.6	3,059	15.0	3,131	-72
08-Apr-07	31,099	7,652	338	23,785	24,231	13.4	2,811	15.5	3,257	-446
15-Apr-07	31,099	7,652	338	23,785	23,657	16.0	3,279	15.4	3,151	128
22-Apr-07	31,099	6,900	338	24,537	23,408	20.7	4,213	15.2	3,084	1,129
29-Apr-07	31,099	6,996	338	24,441	22,927	22.4	4,472	14.8	2,958	1,514
06-May-07	31,099	7,275	338	24,162	22,952	21.7	4,304	15.6	3,094	1,210
13-May-07	31,099	7,197	338	24,240	22,762	23.4	4,589	15.8	3,111	1,478
20-May-07	31,099	7,129	338	24,308	24,527	14.0	2,978	15.0	3,197	-219
27-May-07	31,099	5,685	338	25,752	25,041	20.4	4,358	17.1	3,647	711
03-Jun-07	31,099	5,736	338	25,701	25,346	17.5	3,835	15.9	3,480	355
10-Jun-07	31,099	4,759	338	26,678	25,688	19.9	4,426	15.4	3,436	990
17-Jun-07	31,099	3,513	338	27,924	27,150	18.1	4,282	14.8	3,508	774
24-Jun-07	31,099	3,665	338	27,772	28,703	12.3	3,045	16.1	3,976	-931

Note: The reader should be aware that [Security and Adequacy Assessments](#) are published on the IESO web site on a weekly and daily basis that progressively supersedes information presented in this report.

(Table A1 continued)

Week Ending Day	Total Resources MW	Total Reductions in Resources MW	Price-responsive Demand MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
01-Jul-07	31,099	2,844	338	28,593	27,927	17.4	4,241	14.7	3,575	666
08-Jul-07	31,099	2,917	338	28,520	27,988	16.7	4,084	14.5	3,552	532
15-Jul-07	31,099	2,917	338	28,520	29,680	11.3	2,905	15.9	4,065	-1,160
22-Jul-07	31,099	2,706	338	28,731	28,866	14.7	3,676	15.2	3,811	-135
29-Jul-07	31,099	2,706	338	28,731	28,515	15.9	3,941	15.0	3,725	216
05-Aug-07	31,126	3,152	338	28,312	28,362	14.9	3,667	15.1	3,717	-50
12-Aug-07	31,126	3,152	338	28,312	28,820	13.2	3,291	15.2	3,799	-508
19-Aug-07	31,126	3,152	338	28,312	28,238	15.3	3,761	15.0	3,687	74
26-Aug-07	31,126	3,152	338	28,312	27,369	18.8	4,475	14.8	3,532	943
02-Sep-07	31,126	3,687	338	27,777	27,585	15.5	3,717	14.7	3,525	192
09-Sep-07	31,126	4,678	338	26,786	27,617	12.6	2,992	16.1	3,823	-831
16-Sep-07	31,126	5,669	338	25,795	26,318	13.0	2,973	15.3	3,496	-523
23-Sep-07	31,126	6,415	338	25,049	25,249	15.5	3,356	16.4	3,556	-200
30-Sep-07	31,126	6,671	338	24,793	23,876	21.8	4,431	17.3	3,514	917
07-Oct-07	31,126	5,836	338	25,628	23,422	26.6	5,381	15.7	3,175	2,206
14-Oct-07	31,126	7,189	338	24,275	23,251	19.0	3,873	14.0	2,849	1,024
21-Oct-07	31,126	7,189	338	24,275	23,792	16.3	3,405	14.0	2,922	483
28-Oct-07	31,126	6,673	338	24,791	24,260	17.0	3,597	14.5	3,066	531
04-Nov-07	31,126	7,111	338	24,353	24,799	12.3	2,658	14.3	3,104	-446
11-Nov-07	31,126	6,541	338	24,923	25,220	12.7	2,799	14.0	3,096	-297
18-Nov-07	31,126	6,025	338	25,439	25,896	11.5	2,621	13.5	3,078	-457
25-Nov-07	31,126	6,025	338	25,439	26,512	9.3	2,162	13.9	3,235	-1,073
02-Dec-07	31,126	5,912	338	25,552	26,466	9.7	2,256	13.6	3,170	-914
09-Dec-07	31,126	5,820	338	25,644	27,345	6.8	1,633	13.9	3,334	-1,701
16-Dec-07	31,126	5,287	338	26,177	27,424	8.7	2,099	13.9	3,346	-1,247
23-Dec-07	31,126	4,315	338	27,149	27,833	11.4	2,776	14.2	3,460	-684
30-Dec-07	31,126	3,441	338	28,023	26,165	22.3	5,117	14.2	3,259	1,858
06-Jan-08	31,126	3,455	338	28,009	27,467	15.9	3,836	13.6	3,294	542
13-Jan-08	31,126	2,556	338	28,908	27,764	17.9	4,395	13.3	3,251	1,144
20-Jan-08	31,126	2,549	338	28,915	28,250	16.1	4,005	13.4	3,340	665
27-Jan-08	31,126	2,568	338	28,896	27,967	17.2	4,243	13.4	3,314	929
03-Feb-08	31,126	3,454	338	28,010	27,924	14.2	3,483	13.9	3,397	86
10-Feb-08	31,126	3,468	338	27,996	27,705	14.9	3,620	13.7	3,329	291
17-Feb-08	31,126	2,938	338	28,526	27,314	18.6	4,470	13.5	3,258	1,212
24-Feb-08	31,126	4,069	338	27,395	26,754	16.0	3,771	13.3	3,130	641
02-Mar-08	31,126	4,069	338	27,395	26,697	17.2	4,021	14.2	3,323	698
09-Mar-08	31,126	5,327	338	26,137	26,561	12.5	2,901	14.3	3,325	-424
16-Mar-08	31,126	5,330	338	26,134	25,347	17.8	3,945	14.2	3,158	787
23-Mar-08	31,126	5,322	338	26,142	25,140	18.6	4,095	14.0	3,093	1,002
30-Mar-08	31,126	7,101	338	24,363	24,137	15.2	3,205	14.1	2,979	226



**Table A2 Assessment of Resource Adequacy: Normal Weather,  
Planned Resource Scenario**

Week Ending Day	Total Resources MW	Total Reductions in Resources MW	Price-responsive Demand MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
01-Oct-06	31,094	6,769	355	24,680	23,537	22.9	4,603	17.2	3,460	1,143
08-Oct-06	31,094	5,187	355	26,262	23,373	31.0	6,217	16.6	3,328	2,889
15-Oct-06	31,094	6,263	355	25,186	23,232	24.7	4,986	15.0	3,032	1,954
22-Oct-06	31,094	5,768	355	25,681	23,846	24.2	5,009	15.4	3,174	1,835
29-Oct-06	31,094	7,187	355	24,262	24,208	15.6	3,270	15.3	3,216	54
05-Nov-06	31,189	7,924	413	23,678	24,903	9.3	2,023	15.0	3,248	-1,225
12-Nov-06	31,189	6,770	413	24,832	25,149	13.3	2,919	14.8	3,236	-317
19-Nov-06	31,189	5,465	413	26,137	25,805	15.5	3,515	14.1	3,183	332
26-Nov-06	31,189	6,420	413	25,182	26,405	9.1	2,101	14.4	3,324	-1,223
03-Dec-06	31,189	5,260	427	26,356	26,121	14.2	3,284	13.2	3,049	235
10-Dec-06	31,189	5,135	427	26,481	27,041	11.3	2,691	13.7	3,251	-560
17-Dec-06	31,189	2,725	427	28,891	27,142	21.1	5,035	13.8	3,286	1,749
24-Dec-06	31,189	2,193	427	29,423	27,457	22.0	5,299	13.8	3,333	1,966
31-Dec-06	31,189	2,372	427	29,244	25,814	30.2	6,785	14.9	3,355	3,430
07-Jan-07	31,189	2,135	427	29,481	27,309	23.2	5,560	14.2	3,388	2,172
14-Jan-07	31,189	2,124	427	29,492	27,631	21.6	5,235	13.9	3,374	1,861
21-Jan-07	31,189	2,124	427	29,492	28,073	19.5	4,815	13.8	3,396	1,419
28-Jan-07	31,189	2,956	427	28,660	27,842	17.4	4,240	14.0	3,422	818
04-Feb-07	31,189	3,016	427	28,600	27,689	17.8	4,311	14.0	3,400	911
11-Feb-07	31,194	3,036	427	28,585	27,486	18.4	4,442	13.9	3,343	1,099
18-Feb-07	31,194	3,494	427	28,127	27,037	18.1	4,312	13.5	3,222	1,090
25-Feb-07	31,194	3,511	427	28,110	26,545	20.2	4,718	13.5	3,153	1,565
04-Mar-07	31,194	4,905	427	26,716	26,441	15.5	3,585	14.3	3,310	275
11-Mar-07	31,194	6,278	427	25,343	26,324	10.2	2,351	14.5	3,332	-981
18-Mar-07	31,194	7,033	427	24,588	25,184	12.0	2,627	14.7	3,223	-596
25-Mar-07	31,194	7,033	427	24,588	24,729	13.7	2,969	14.4	3,110	-141
01-Apr-07	31,194	7,538	427	24,083	24,055	15.1	3,157	15.0	3,129	28
08-Apr-07	31,194	7,738	427	23,883	24,230	13.9	2,909	15.5	3,256	-347
15-Apr-07	31,194	7,738	427	23,883	23,655	16.5	3,377	15.4	3,149	228
22-Apr-07	31,194	6,986	427	24,635	23,408	21.2	4,311	15.2	3,084	1,227
29-Apr-07	31,194	7,082	427	24,539	22,927	22.9	4,570	14.8	2,958	1,612
06-May-07	31,194	7,361	427	24,260	22,952	22.2	4,402	15.6	3,094	1,308
13-May-07	31,194	7,283	427	24,338	22,762	23.9	4,687	15.8	3,111	1,576
20-May-07	31,194	7,215	427	24,406	24,525	14.4	3,076	15.0	3,195	-119
27-May-07	31,194	5,771	427	25,850	25,041	20.8	4,456	17.1	3,647	809
03-Jun-07	31,194	5,822	427	25,799	25,345	18.0	3,933	15.9	3,479	454
10-Jun-07	31,194	4,845	427	26,776	25,688	20.3	4,524	15.4	3,436	1,088
17-Jun-07	31,194	3,599	427	28,022	27,149	18.5	4,380	14.8	3,507	873
24-Jun-07	31,679	3,752	427	28,354	28,717	14.7	3,627	16.1	3,990	-363

Note: The reader should be aware that [Security and Adequacy Assessments](#) are published on the IESO web site on a weekly and daily basis that progressively supersedes information presented in this report.

(Table A2 continued)

Week Ending Day	Total Resources MW	Total Reductions in Resources MW	Price-responsive Demand MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
01-Jul-07	31,679	2,931	427	29,175	27,972	19.8	4,823	14.9	3,620	1,203
08-Jul-07	31,879	3,183	427	29,123	28,010	19.2	4,687	14.6	3,574	1,113
15-Jul-07	31,879	3,183	427	29,123	29,677	13.7	3,508	15.9	4,062	-554
22-Jul-07	31,879	2,972	427	29,334	28,855	17.1	4,279	15.2	3,800	479
29-Jul-07	31,879	2,972	427	29,334	28,520	18.3	4,544	15.1	3,730	814
05-Aug-07	31,906	3,418	427	28,915	28,353	17.3	4,270	15.1	3,708	562
12-Aug-07	31,906	3,418	427	28,915	28,824	15.6	3,894	15.2	3,803	91
19-Aug-07	31,906	3,418	427	28,915	28,236	17.8	4,364	15.0	3,685	679
26-Aug-07	31,906	3,418	427	28,915	27,444	21.3	5,078	15.1	3,607	1,471
02-Sep-07	31,906	3,953	427	28,380	27,584	18.0	4,320	14.7	3,524	796
09-Sep-07	31,906	4,944	427	27,389	27,624	15.1	3,595	16.1	3,830	-235
16-Sep-07	31,906	5,935	427	26,398	26,315	15.7	3,576	15.3	3,493	83
23-Sep-07	31,906	6,681	427	25,652	25,257	18.3	3,959	16.4	3,564	395
30-Sep-07	31,906	6,937	427	25,396	23,951	24.7	5,034	17.6	3,589	1,445
07-Oct-07	31,982	6,171	427	26,238	23,498	29.6	5,991	16.1	3,251	2,740
14-Oct-07	31,982	7,524	427	24,885	23,328	22.0	4,483	14.3	2,926	1,557
21-Oct-07	31,982	7,524	427	24,885	23,818	19.2	4,015	14.1	2,948	1,067
28-Oct-07	31,982	7,008	427	25,401	24,304	19.9	4,207	14.7	3,110	1,097
04-Nov-07	31,982	7,445	427	24,964	24,794	15.1	3,269	14.3	3,099	170
11-Nov-07	31,982	6,875	427	25,534	25,211	15.4	3,410	14.0	3,087	323
18-Nov-07	31,982	6,359	427	26,050	25,901	14.2	3,232	13.5	3,083	149
25-Nov-07	31,982	6,359	427	26,050	26,496	11.9	2,773	13.8	3,219	-446
02-Dec-07	31,982	6,246	427	26,163	26,444	12.3	2,867	13.5	3,148	-281
09-Dec-07	31,982	6,154	427	26,255	27,337	9.4	2,244	13.9	3,326	-1,082
16-Dec-07	31,982	5,622	427	26,787	27,422	11.3	2,709	13.9	3,344	-635
23-Dec-07	31,982	4,649	427	27,760	27,829	13.9	3,387	14.2	3,456	-69
30-Dec-07	31,982	3,776	427	28,633	26,241	25.0	5,727	14.6	3,335	2,392
06-Jan-08	31,982	3,790	433	28,625	27,470	18.4	4,452	13.6	3,297	1,155
13-Jan-08	31,982	2,890	433	29,525	27,825	20.5	5,012	13.5	3,312	1,700
20-Jan-08	31,982	2,884	433	29,531	28,254	18.6	4,621	13.4	3,344	1,277
27-Jan-08	31,982	2,902	433	29,513	28,008	19.7	4,860	13.6	3,355	1,505
03-Feb-08	31,982	3,788	433	28,627	27,905	16.7	4,100	13.8	3,378	722
10-Feb-08	31,982	3,803	433	28,612	27,693	17.4	4,236	13.6	3,317	919
17-Feb-08	31,982	3,272	433	29,143	27,390	21.2	5,087	13.9	3,334	1,753
24-Feb-08	31,982	4,403	433	28,012	26,758	18.6	4,388	13.3	3,134	1,254
02-Mar-08	31,982	4,403	433	28,012	26,739	19.8	4,638	14.4	3,365	1,273
09-Mar-08	31,982	5,661	433	26,754	26,561	15.1	3,518	14.3	3,325	193
16-Mar-08	31,982	5,664	433	26,751	25,410	20.6	4,562	14.5	3,221	1,341
23-Mar-08	31,982	5,656	433	26,759	25,216	21.4	4,712	14.4	3,169	1,543
30-Mar-08	31,982	7,435	433	24,980	24,137	18.1	3,822	14.1	2,979	843

Table A3 Demand Forecast Range For Required Resources Calculation

Week Ending Day	Ontario Demand Normal Weather MW	Ontario Demand Extreme Weather MW	Week Ending Day	Ontario Demand Normal Weather MW	Ontario Demand Extreme Weather MW
01-Oct-06	20,077	23,564	01-Jul-07	24,352	26,596
08-Oct-06	20,045	23,888	08-Jul-07	24,436	25,874
15-Oct-06	20,200	20,869	15-Jul-07	25,615	27,513
22-Oct-06	20,672	21,503	22-Jul-07	25,055	26,708
29-Oct-06	20,992	21,748	29-Jul-07	24,790	26,620
05-Nov-06	21,655	22,313	05-Aug-07	24,645	26,769
12-Nov-06	21,913	22,654	12-Aug-07	25,021	26,870
19-Nov-06	22,622	23,232	19-Aug-07	24,551	26,802
26-Nov-06	23,081	23,976	26-Aug-07	23,837	26,205
03-Dec-06	23,072	23,883	02-Sep-07	24,060	26,319
10-Dec-06	23,790	24,870	09-Sep-07	23,794	26,252
17-Dec-06	23,856	24,891	16-Sep-07	22,822	25,690
24-Dec-06	24,124	25,075	23-Sep-07	21,693	25,222
31-Dec-06	22,459	23,675	30-Sep-07	20,362	23,915
07-Jan-07	23,921	24,841	07-Oct-07	20,247	24,186
14-Jan-07	24,257	25,231	14-Oct-07	20,402	21,071
21-Jan-07	24,677	25,725	21-Oct-07	20,870	21,710
28-Jan-07	24,420	25,571	28-Oct-07	21,194	21,950
04-Feb-07	24,289	25,247	04-Nov-07	21,695	22,319
11-Feb-07	24,143	25,252	11-Nov-07	22,124	22,877
18-Feb-07	23,815	24,851	18-Nov-07	22,818	23,428
25-Feb-07	23,392	24,586	25-Nov-07	23,277	24,172
04-Mar-07	23,131	24,371	02-Dec-07	23,296	24,106
11-Mar-07	22,992	24,086	09-Dec-07	24,011	25,091
18-Mar-07	21,961	22,794	16-Dec-07	24,078	25,113
25-Mar-07	21,619	22,369	23-Dec-07	24,373	25,324
01-Apr-07	20,926	22,105	30-Dec-07	22,906	23,987
08-Apr-07	20,974	22,455	06-Jan-08	24,173	25,093
15-Apr-07	20,506	21,659	13-Jan-08	24,513	25,488
22-Apr-07	20,324	23,455	20-Jan-08	24,910	25,958
29-Apr-07	19,969	23,440	27-Jan-08	24,653	25,804
06-May-07	19,858	23,104	03-Feb-08	24,527	25,484
13-May-07	19,651	23,760	10-Feb-08	24,376	25,485
20-May-07	21,330	23,358	17-Feb-08	24,056	25,092
27-May-07	21,394	24,073	24-Feb-08	23,624	24,818
03-Jun-07	21,866	24,848	02-Mar-08	23,374	24,614
10-Jun-07	22,252	24,672	09-Mar-08	23,236	24,330
17-Jun-07	23,642	25,402	16-Mar-08	22,189	23,022
24-Jun-07	24,727	26,864	23-Mar-08	22,047	22,860
			30-Mar-08	21,158	22,337

**Table A4 Assessment of Resource Adequacy: Extreme Weather,  
Existing Resource Scenario**

Week Ending Day	Total Resources MW	Total Reductions in Resources MW	Price-responsive Demand MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
01-Oct-06	31,094	6,769	338	24,663	26,868	4.7	1,099	14.0	3,304	-2,205
08-Oct-06	31,094	5,187	338	26,245	27,353	9.9	2,357	14.5	3,465	-1,108
15-Oct-06	31,094	6,263	338	25,169	23,811	20.6	4,300	14.1	2,942	1,358
22-Oct-06	31,094	5,768	338	25,664	24,559	19.4	4,161	14.2	3,056	1,105
29-Oct-06	31,094	7,187	338	24,245	24,899	11.5	2,497	14.5	3,151	-654
05-Nov-06	31,099	7,834	338	23,603	25,500	5.8	1,290	14.3	3,187	-1,897
12-Nov-06	31,099	6,689	338	24,748	25,886	9.2	2,094	14.3	3,232	-1,138
19-Nov-06	31,099	5,384	338	26,053	26,489	12.1	2,821	14.0	3,257	-436
26-Nov-06	31,099	6,330	338	25,107	27,383	4.7	1,131	14.2	3,407	-2,276
03-Dec-06	31,099	5,180	338	26,257	27,023	9.9	2,374	13.2	3,140	-766
10-Dec-06	31,099	5,050	338	26,387	28,219	6.1	1,517	13.5	3,349	-1,832
17-Dec-06	31,099	2,668	338	28,769	28,153	15.6	3,878	13.1	3,262	616
24-Dec-06	31,099	2,131	338	29,306	28,340	16.9	4,231	13.0	3,265	966
31-Dec-06	31,099	2,251	338	29,186	26,881	23.3	5,511	13.5	3,206	2,305
07-Jan-07	31,099	2,061	338	29,376	28,074	18.3	4,535	13.0	3,233	1,302
14-Jan-07	31,099	2,043	338	29,394	28,537	16.5	4,163	13.1	3,306	857
21-Jan-07	31,099	2,043	338	29,394	29,144	14.3	3,669	13.3	3,419	250
28-Jan-07	31,099	2,870	338	28,567	29,046	11.7	2,996	13.6	3,475	-479
04-Feb-07	31,099	2,924	338	28,513	28,663	12.9	3,266	13.5	3,416	-150
11-Feb-07	31,099	2,931	338	28,506	28,669	12.9	3,254	13.5	3,417	-163
18-Feb-07	31,099	3,491	338	27,946	28,117	12.5	3,095	13.1	3,266	-171
25-Feb-07	31,099	3,479	338	27,958	27,803	13.7	3,372	13.1	3,217	155
04-Mar-07	31,099	4,819	338	26,618	27,834	9.2	2,247	14.2	3,463	-1,216
11-Mar-07	31,099	6,192	338	25,245	27,524	4.8	1,159	14.3	3,438	-2,279
18-Mar-07	31,099	6,947	338	24,490	26,030	7.4	1,696	14.2	3,236	-1,540
25-Mar-07	31,099	6,947	338	24,490	25,529	9.5	2,121	14.1	3,160	-1,039
01-Apr-07	31,099	7,452	338	23,985	25,209	8.5	1,880	14.0	3,104	-1,224
08-Apr-07	31,099	7,652	338	23,785	25,717	5.9	1,330	14.5	3,262	-1,932
15-Apr-07	31,099	7,652	338	23,785	24,752	9.8	2,126	14.3	3,093	-967
22-Apr-07	31,099	6,897	338	24,540	26,838	4.6	1,085	14.4	3,383	-2,298
29-Apr-07	31,099	6,996	338	24,441	26,826	4.3	1,001	14.5	3,386	-2,385
06-May-07	31,099	7,275	338	24,162	26,454	4.6	1,058	14.5	3,350	-2,292
13-May-07	31,099	7,197	338	24,240	27,235	2.0	480	14.6	3,475	-2,995
20-May-07	31,099	7,129	338	24,308	26,510	4.1	950	13.5	3,152	-2,202
27-May-07	31,099	5,685	338	25,752	27,591	7.0	1,679	14.6	3,518	-1,839
03-Jun-07	31,099	5,736	338	25,701	28,298	3.4	853	13.9	3,450	-2,597
10-Jun-07	31,099	4,759	338	26,678	28,064	8.1	2,006	13.8	3,392	-1,386
17-Jun-07	31,099	3,513	338	27,924	28,881	9.9	2,522	13.7	3,479	-957
24-Jun-07	31,099	3,665	338	27,772	30,624	3.4	908	14.0	3,760	-2,852

(Table A4 continued)

Week Ending Day	Total Resources MW	Total Reductions in Resources MW	Price-responsive Demand MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
01-Jul-07	31,099	2,844	338	28,593	30,254	7.5	1,997	13.8	3,658	-1,661
08-Jul-07	31,099	2,917	338	28,520	29,423	10.2	2,646	13.7	3,549	-903
15-Jul-07	31,099	2,917	338	28,520	31,371	3.7	1,007	14.0	3,858	-2,851
22-Jul-07	31,099	2,706	338	28,731	30,377	7.6	2,023	13.7	3,669	-1,646
29-Jul-07	31,099	2,706	338	28,731	30,270	7.9	2,111	13.7	3,650	-1,539
05-Aug-07	31,126	3,152	338	28,312	30,498	5.8	1,543	13.9	3,729	-2,186
12-Aug-07	31,126	3,152	338	28,312	30,617	5.4	1,442	13.9	3,747	-2,305
19-Aug-07	31,126	3,152	338	28,312	30,536	5.6	1,510	13.9	3,734	-2,224
26-Aug-07	31,126	3,152	338	28,312	29,831	8.0	2,107	13.8	3,626	-1,519
02-Sep-07	31,126	3,687	338	27,777	29,949	5.5	1,458	13.8	3,630	-2,172
09-Sep-07	31,126	4,678	338	26,786	29,953	2.0	534	14.1	3,701	-3,167
16-Sep-07	31,126	5,669	338	25,795	29,294	0.4	105	14.0	3,604	-3,499
23-Sep-07	31,126	6,415	338	25,049	28,811	-0.7	-173	14.2	3,589	-3,762
30-Sep-07	31,126	6,671	338	24,793	27,258	3.7	878	14.0	3,343	-2,465
07-Oct-07	31,126	5,836	338	25,628	27,663	6.0	1,442	14.4	3,477	-2,035
14-Oct-07	31,126	7,189	338	24,275	23,921	15.2	3,204	13.5	2,850	354
21-Oct-07	31,126	7,189	338	24,275	24,698	11.8	2,565	13.8	2,988	-423
28-Oct-07	31,126	6,673	338	24,791	24,982	12.9	2,841	13.8	3,032	-191
04-Nov-07	31,126	7,111	338	24,353	25,402	9.1	2,034	13.8	3,083	-1,049
11-Nov-07	31,126	6,541	338	24,923	25,968	8.9	2,046	13.5	3,091	-1,045
18-Nov-07	31,126	6,025	338	25,439	26,568	8.6	2,011	13.4	3,140	-1,129
25-Nov-07	31,126	6,025	338	25,439	27,475	5.2	1,267	13.7	3,303	-2,036
02-Dec-07	31,126	5,912	338	25,552	27,370	6.0	1,446	13.5	3,264	-1,818
09-Dec-07	31,126	5,820	338	25,644	28,532	2.2	553	13.7	3,441	-2,888
16-Dec-07	31,126	5,311	338	26,153	28,550	4.1	1,040	13.7	3,437	-2,397
23-Dec-07	31,126	4,318	338	27,146	28,866	7.2	1,822	14.0	3,542	-1,720
30-Dec-07	31,126	3,437	338	28,027	27,157	16.8	4,040	13.2	3,170	870
06-Jan-08	31,126	3,462	338	28,002	28,417	11.6	2,909	13.3	3,324	-415
13-Jan-08	31,126	2,549	338	28,915	28,787	13.5	3,427	12.9	3,299	128
20-Jan-08	31,126	2,549	338	28,915	29,363	11.4	2,957	13.1	3,405	-448
27-Jan-08	31,126	2,549	338	28,915	29,163	12.1	3,111	13.0	3,359	-248
03-Feb-08	31,126	3,430	338	28,034	28,891	10.0	2,550	13.4	3,407	-857
10-Feb-08	31,126	3,450	338	28,014	28,894	9.9	2,529	13.4	3,409	-880
17-Feb-08	31,126	3,027	338	28,437	28,384	13.3	3,345	13.1	3,292	53
24-Feb-08	31,126	4,069	338	27,395	28,092	10.4	2,577	13.2	3,274	-697
02-Mar-08	31,126	4,069	338	27,395	28,086	11.3	2,781	14.1	3,472	-691
09-Mar-08	31,126	5,327	338	26,137	27,770	7.4	1,807	14.1	3,440	-1,633
16-Mar-08	31,126	5,327	338	26,137	26,189	13.5	3,115	13.8	3,167	-52
23-Mar-08	31,126	5,317	338	26,147	25,970	14.4	3,287	13.6	3,110	177
30-Mar-08	31,126	7,096	338	24,368	25,326	9.1	2,031	13.4	2,989	-958

**Table A5 Assessment of Resource Adequacy: Extreme Weather,  
Planned Resource Scenario**

Week Ending Day	Total Resources MW	Total Reductions in Resources MW	Price-responsive Demand MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
01-Oct-06	31,094	6,769	355	24,680	26,868	4.7	1,116	14.0	3,304	-2,188
08-Oct-06	31,094	5,187	355	26,262	27,353	9.9	2,374	14.5	3,465	-1,091
15-Oct-06	31,094	6,263	355	25,186	23,811	20.7	4,317	14.1	2,942	1,375
22-Oct-06	31,094	5,768	355	25,681	24,559	19.4	4,178	14.2	3,056	1,122
29-Oct-06	31,094	7,187	355	24,262	24,899	11.6	2,514	14.5	3,151	-637
05-Nov-06	31,189	7,924	413	23,678	25,500	6.1	1,365	14.3	3,187	-1,822
12-Nov-06	31,189	6,770	413	24,832	25,885	9.6	2,178	14.3	3,231	-1,053
19-Nov-06	31,189	5,465	413	26,137	26,487	12.5	2,905	14.0	3,255	-350
26-Nov-06	31,189	6,411	413	25,191	27,382	5.1	1,215	14.2	3,406	-2,191
03-Dec-06	31,189	5,261	427	26,355	27,022	10.4	2,472	13.1	3,139	-667
10-Dec-06	31,189	5,131	427	26,485	28,218	6.5	1,615	13.5	3,348	-1,733
17-Dec-06	31,189	2,749	427	28,867	28,150	16.0	3,976	13.1	3,259	717
24-Dec-06	31,189	2,212	427	29,404	28,339	17.3	4,329	13.0	3,264	1,065
31-Dec-06	31,189	2,332	427	29,284	26,881	23.7	5,609	13.5	3,206	2,403
07-Jan-07	31,189	2,142	427	29,474	28,073	18.7	4,633	13.0	3,232	1,401
14-Jan-07	31,189	2,124	427	29,492	28,536	16.9	4,261	13.1	3,305	956
21-Jan-07	31,189	2,124	427	29,492	29,144	14.6	3,767	13.3	3,419	348
28-Jan-07	31,189	2,951	427	28,665	29,045	12.1	3,094	13.6	3,474	-380
04-Feb-07	31,189	3,005	427	28,611	28,662	13.3	3,364	13.5	3,415	-51
11-Feb-07	31,194	3,017	427	28,604	28,668	13.3	3,352	13.5	3,416	-64
18-Feb-07	31,194	3,577	427	28,044	28,116	12.9	3,193	13.1	3,265	-72
25-Feb-07	31,194	3,565	427	28,056	27,801	14.1	3,470	13.1	3,215	255
04-Mar-07	31,194	4,905	427	26,716	27,833	9.6	2,345	14.2	3,462	-1,117
11-Mar-07	31,194	6,278	427	25,343	27,523	5.2	1,257	14.3	3,437	-2,180
18-Mar-07	31,194	7,033	427	24,588	26,028	7.9	1,794	14.2	3,234	-1,440
25-Mar-07	31,194	7,033	427	24,588	25,527	9.9	2,219	14.1	3,158	-939
01-Apr-07	31,194	7,538	427	24,083	25,208	9.0	1,978	14.0	3,103	-1,125
08-Apr-07	31,194	7,738	427	23,883	25,715	6.4	1,428	14.5	3,260	-1,832
15-Apr-07	31,194	7,738	427	23,883	24,751	10.3	2,224	14.3	3,092	-868
22-Apr-07	31,194	6,983	427	24,638	26,837	5.0	1,183	14.4	3,382	-2,199
29-Apr-07	31,194	7,082	427	24,539	26,824	4.7	1,099	14.4	3,384	-2,285
06-May-07	31,194	7,361	427	24,260	26,453	5.0	1,156	14.5	3,349	-2,193
13-May-07	31,194	7,283	427	24,338	27,232	2.4	578	14.6	3,472	-2,894
20-May-07	31,194	7,215	427	24,406	26,509	4.5	1,048	13.5	3,151	-2,103
27-May-07	31,194	5,771	427	25,850	27,590	7.4	1,777	14.6	3,517	-1,740
03-Jun-07	31,194	5,822	427	25,799	28,296	3.8	951	13.9	3,448	-2,497
10-Jun-07	31,194	4,845	427	26,776	28,063	8.5	2,104	13.7	3,391	-1,287
17-Jun-07	31,194	3,599	427	28,022	28,880	10.3	2,620	13.7	3,478	-858
24-Jun-07	31,679	3,752	427	28,354	30,616	5.6	1,490	14.0	3,752	-2,262

(Table A5 continued)

Week Ending Day	Total Resources MW	Total Reductions in Resources MW	Price-responsive Demand MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
01-Jul-07	31,679	2,931	427	29,175	30,254	9.7	2,579	13.8	3,658	-1,079
08-Jul-07	31,879	3,183	427	29,123	29,410	12.6	3,249	13.7	3,536	-287
15-Jul-07	31,879	3,183	427	29,123	31,351	5.9	1,610	14.0	3,838	-2,228
22-Jul-07	31,879	2,972	427	29,334	30,372	9.8	2,626	13.7	3,664	-1,038
29-Jul-07	31,879	2,972	427	29,334	30,269	10.2	2,714	13.7	3,649	-935
05-Aug-07	31,906	3,418	427	28,915	30,509	8.0	2,146	14.0	3,740	-1,594
12-Aug-07	31,906	3,418	427	28,915	30,629	7.6	2,045	14.0	3,759	-1,714
19-Aug-07	31,906	3,418	427	28,915	30,550	7.9	2,113	14.0	3,748	-1,635
26-Aug-07	31,906	3,418	427	28,915	29,833	10.3	2,710	13.8	3,628	-918
02-Sep-07	31,906	3,953	427	28,380	29,969	7.8	2,061	13.9	3,650	-1,589
09-Sep-07	31,906	4,944	427	27,389	29,962	4.3	1,137	14.1	3,710	-2,573
16-Sep-07	31,906	5,935	427	26,398	29,303	2.8	708	14.1	3,613	-2,905
23-Sep-07	31,906	6,681	427	25,652	28,815	1.7	430	14.3	3,593	-3,163
30-Sep-07	31,906	6,937	427	25,396	27,257	6.2	1,481	14.0	3,342	-1,861
07-Oct-07	31,982	6,171	427	26,238	27,631	8.5	2,052	14.2	3,445	-1,393
14-Oct-07	31,982	7,524	427	24,885	23,914	18.1	3,814	13.5	2,843	971
21-Oct-07	31,982	7,524	427	24,885	24,689	14.6	3,175	13.7	2,979	196
28-Oct-07	31,982	7,008	427	25,401	24,957	15.7	3,451	13.7	3,007	444
04-Nov-07	31,982	7,445	427	24,964	25,387	11.9	2,645	13.8	3,068	-423
11-Nov-07	31,982	6,875	427	25,534	25,959	11.6	2,657	13.5	3,082	-425
18-Nov-07	31,982	6,359	427	26,050	26,575	11.2	2,622	13.4	3,147	-525
25-Nov-07	31,982	6,359	427	26,050	27,460	7.8	1,878	13.6	3,288	-1,410
02-Dec-07	31,982	6,246	427	26,163	27,349	8.5	2,057	13.5	3,243	-1,186
09-Dec-07	31,982	6,154	427	26,255	28,503	4.6	1,164	13.6	3,412	-2,248
16-Dec-07	31,982	5,645	427	26,764	28,547	6.6	1,651	13.7	3,434	-1,783
23-Dec-07	31,982	4,653	427	27,756	28,856	9.6	2,432	14.0	3,532	-1,100
30-Dec-07	31,982	3,771	427	28,638	27,195	19.4	4,651	13.4	3,208	1,443
06-Jan-08	31,982	3,797	433	28,618	28,408	14.1	3,525	13.2	3,315	210
13-Jan-08	31,982	2,883	433	29,532	28,778	15.9	4,044	12.9	3,290	754
20-Jan-08	31,982	2,883	433	29,532	29,339	13.8	3,574	13.0	3,381	193
27-Jan-08	31,982	2,883	433	29,532	29,158	14.5	3,728	13.0	3,354	374
03-Feb-08	31,982	3,764	433	28,651	28,870	12.4	3,167	13.3	3,386	-219
10-Feb-08	31,982	3,784	433	28,631	28,873	12.3	3,146	13.3	3,388	-242
17-Feb-08	31,982	3,361	433	29,054	28,370	15.8	3,962	13.1	3,278	684
24-Feb-08	31,982	4,403	433	28,012	28,069	12.9	3,194	13.1	3,251	-57
02-Mar-08	31,982	4,403	433	28,012	28,076	13.8	3,398	14.1	3,462	-64
09-Mar-08	31,982	5,661	433	26,754	27,763	10.0	2,424	14.1	3,433	-1,009
16-Mar-08	31,982	5,661	433	26,754	26,183	16.2	3,732	13.7	3,161	571
23-Mar-08	31,982	5,651	433	26,764	25,962	17.1	3,904	13.6	3,102	802
30-Mar-08	31,982	7,430	433	24,985	25,286	11.9	2,648	13.2	2,949	-301

**Table A6 Energy Production Capability Forecast**

<b>Month</b>	<b>Existing Resource Scenario Forecast Energy Production Capability (GWh)</b>	<b>Planned Resource Scenario Forecast Energy Production Capability (GWh)</b>
Oct 2006	15,672	15,672
Nov 2006	15,932	15,951
Dec 2006	15,326	15,346
Jan 2007	14,800	14,820
Feb 2007	12,691	12,712
Mar 2007	15,068	15,091
Apr 2007	15,026	15,047
May 2007	15,820	15,842
Jun 2007	13,495	13,517
Jul 2007	13,394	13,461
Aug 2007	13,661	13,728
Sep 2007	14,599	14,664
Oct 2007	15,816	15,900
Nov 2007	15,521	15,602
Dec 2007	15,277	15,362
Jan 2008	15,185	15,269
Feb 2008	13,644	13,723
Mar 2008	14,670	14,754

- End of Section -



## Appendix B Transmission Projects

Zone	CAA-ID#	Transmitter	Description	Proposed I/S Date
East	2005-198	Hydro One Networks Inc.	Whitby TS new transformer station	2007-Q2
Essa	N/A	Hydro One Networks Inc.	Orangeville TS Shunt Capacitor	2007-Q2
Essa	2006-227	Hydro One Networks Inc.	Everett TS new transformer station	2007-Q2
Niagara	2002-085	Hydro One Networks Inc.	Queenston Flow West	To be determined
Northeast	2004-EX211	Great Lakes Power Ltd.	Patrick St. TS - 8 oil circuit breakers replaced with SF6 breakers	2006-Q4
Northeast	2003-EX173	Great Lakes Power Ltd.	New Gartshore TS - 5x115 kV breaker ring-bus to replace existing Gartshore TS	2006-Q4
Northeast	2004-EX208	Great Lakes Power Ltd.	115 kV Thirdline Tie Breaker Installation - Between Breakers 445 and 455	2006-Q4
Northeast	2002-EX070	Great Lakes Power Ltd.	P21G 230 kV cct Upgraded to 374 MVA continuous rating	2006-Q4
Northeast	N/A	Great Lakes Power Ltd.	Replacement of 250 MVA Autotransformer @ Third Line TS	2007-Q4
Northeast	N/A	Great Lakes Power Ltd.	Third Line TS 250 MVA Autotransformer tap changer replacement	2007-Q4
Northeast	2002-086	Hydro One Networks Inc.	Modify Moosonee SS	2007-Q3
Northeast	2002-086	Hydro One Networks Inc.	Modify Otter Rapids SS	2007-Q3
Northwest	2005-195	Hydro One Networks Inc.	Fort Frances TS reactive compensation	2007-Q3
Southwest	N/A	Hydro One Networks Inc.	DetweilerTS Shunt Capacitor	2007-Q2
Southwest	2006-225	Hydro One Networks Inc.	Toyota Woodstock TS new transformer station	2007-Q2
Southwest	N/A	Hydro One Networks Inc.	Install Preston 230-115 kV auto-transformer	2007-Q3
Toronto	2002-057	Hydro One Networks Inc.	John x Esplanade 115 kV cable	2007-Q4
West	N/A	Hydro One Networks Inc.	L25/27N inline breakers	2006-Q4
West	2006-212	Hydro One Networks Inc.	London Talbot TS new transformer station	2007-Q2

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## Appendix C Planned Transmission Outages

The following tables list the planned transmission outages by transmission zone, for transmission outages with an expected duration greater than five days, and/or for those transmission outages associated with a major project.

**Table C1 Bruce Zone**

Start Date/Time	End Date/Time	Equipment	Outage Type	Recall	Impact	Reduction in Limit
No Transmission Outages To Report						

**Table C2 East Zone**

Start Date/Time	End Date/Time	Equipment	Outage Type	Recall	Impact	Reduction in Limit
Nov 01 2006 7:00 AM	Nov 11 2006 6:00 PM	St.Lawrence TS: L24A::HAWTHORNE_TS::ST.LAWRENCE_TS, HT4L24, HL24, DL24, L24A::HAWTHORNE_TS::ST.LAWRENCE_TS, L22L24	CWW	8 Hour	FIO	FIO Limit reduced by 100MW from 1900MW to 1800MW
Sep 25 2006 7:00 AM	Oct 06 2006 6:00 PM	Dobbin TS: C27P::DOBBIN_TS::GALETTA_JCT, HL27, AL27, DL33, C27P::GALETTA_JCT::CHATS_FALLS_SS, DL3, D_BUS, C27P::DOBBIN_TS::GALETTA_JCT, C27P::GALETTA_JCT::CHATS_FALLS_SS	CWW	12 Hour	FIO, FID	FIO Limit reduced by 100MW from 1900MW to 1800MW FID reduced 350MW to 90MW
Aug 09 2006 7:00 AM	Aug 09 2007 3:00 PM	Lennox TS: KL522	CWW	2 Hour	none	
Oct 02 2006 7:00 AM	Oct 13 2006 4:00 PM	Hinchinbrooke SS: AL27	CWW	6 Hour	none	
Oct 11 2007 6:00 AM	Oct 26 2007 3:30 PM	Bowmanville SS: R56-X520B, L20L42, X520B::LENNOX_TS::BOWMANVILLE_SS, H2L520, R56-X520B, X520B::LENNOX_TS::BOWMANVILLE_SS, 12-X520B	CWW	6 Hour	none	
Sep 13 2006 6:00 AM	Dec 14 2006 4:00 PM	Vernonville JCT: P4S-A3, A3P4S-3C	CWW	4 Hour	FID, DAL	FID reduced from 300MW to 275MW, DAL limited to 150MW

Table C3 Essay Zone

Start Date/Time	End Date/Time	Equipment	Outage Type	Recall	Impact	Reduction in Limit
Nov 06 2006 5:00 AM	Nov 24 2006 6:00 PM	Des Joachims TS: 5-D5H, D5H::DES_JOACHIMS_TS::OTTO_HOLDE N_TS, 6-D5H, D5H::DES_JOACHIMS_TS::OTTO_HOLDE N_TS	CNW	2 Hour	FN FS	350 MW 400 MW
Sep 25 2006 7:00 AM	Oct 27 2006 4:00 PM	Des Joachims TS: R7-T, T7, R7-L, TR7, T7-HL, R7-T	CWW	76 Hour		none
Oct 11 2006 6:00 AM	Oct 26 2006 4:00 PM	Essa TS: T4-SS4	CWW	Non-Recallable		none
Oct 16 2006 12:00 PM	Nov 03 2006 6:00 PM	Minden TS: AL4, D4M::DES_JOACHIMS_TS::OTTER_CREE K_JCT, D4M::DES_JOACHIMS_TS::OTTER_CREE K_JCT, HL4, D4M::MINDEN_TS::OTTER_CREEK_JCT, L4L81, D4M::MINDEN_TS::OTTER_CREEK_JCT, AL4	CWW	4 Hour		none
Mar 24 2007 6:00 PM	Apr 14 2007 5:00 AM	Essa TS: AT3	CWW	Non-Recallable		none
Apr 14 2007 5:00 AM	Apr 22 2007 5:00 AM	Muskoka TS: 30T2-M6E, T1-M6E, HL7, 80M6E-87, 18-M6E, 80M6E-18, T3, 87- M6E, HT4, HL9, 92T1-M6E, T1-M6E, M6E::COOPER'S_FALLS_JCT::BRACEBRI DGE_JCT, M6E::MIDHURST_TS::MIDHURST_JCT, M6E::COOPER'S_FALLS_JCT::ORILLIA_T S, M6E::MINDEN_TS::COOPER'S_FALLS_JC T, M6E::MINDEN_TS::COOPER'S_FALLS_JC T, M6E::COOPER'S_FALLS_JCT::BRACEBRI DGE_JCT, M6E::ESSA_TS::MIDHURST_JCT, M6E::MIDHURST_TS::MIDHURST_JCT, M6E::MIDHURST_JCT::ORILLIA_TS, M6E::MIDHURST_JCT::ORILLIA_TS, M6E::ESSA_TS::MIDHURST_JCT, M6E::BRACEBRIDGE_JCT::BRACEBRIDGE _TS, M6E::COOPER'S_FALLS_JCT::ORILLIA_T S, M6E::BRACEBRIDGE_JCT::MUSKOKA_TS, M6E::BRACEBRIDGE_JCT::MUSKOKA_TS, AT3, M6E::BRACEBRIDGE_JCT::BRACEBRIDGE _TS	CWW	2 Day		none
Apr 30 2007 5:00 AM	May 07 2007 5:00 AM	Essa TS: E27::ESSA_TS::WAUBAUSHENE_JCT, E27::ESSA_TS::WAUBAUSHENE_JCT, 18T2-A, E27::PARRY_SOUND_TS::WAUBAUSHEN E_JCT, SC21, AT3, A_BUS, 98-E27, E27::WAUBAUSHENE_JCT::WAUBAUSHE NE_TS, AL8, E27::PARRY_SOUND_TS::WAUBAUSHEN E_JCT, SC21A, E27::WAUBAUSHENE_JCT::WAUBAUSHE NE_TS, 18-E27, SC21SC, AL26, 77T1-	CWW	4 Hour		none

Table C4 Niagara Zone

Start Date/Time	End Date/Time	Equipment	Outage Type	Recall	Impact	Reduction in Limit
Nov 13 2006 6:00 AM	Nov 24 2006 6:00 PM	Murray TS: T11Y1, T11B1, T11, T11-L	DNW	4 Hour		none
Nov 27 2006 6:00 AM	Dec 08 2006 6:00 PM	Murray TS: T12, T12Y2, T12B2, T12-L	CWW	8 Hour		none
Oct 15 2006 6:00 AM	Nov 04 2006 6:00 PM	Carlton TS: T3-A, T3Y, T3K, T3	CWW	Non-Recallable		none
Oct 18 2006 6:00 AM	Oct 23 2006 6:00 PM	Carlton TS: A2-A3, A3_BUS, T4-A, 40-D10S, T3-A	CWW	4 Hour		none
Mar 13 2006 12:00 PM	Dec 31 2006 11:59 PM	Oxy Vinyls CTS: EL6	CWW	Non-Recallable		none
Mar 10 2006 10:30 AM	Dec 31 2006 11:59 PM	Cytec Welland CTS: 93-A7C	CWW	Non-Recallable		none
Nov 20 2006 8:00 AM	Dec 01 2006 4:00 PM	Beamsville TS: 18Q2AH-17, Q2AH::ST.JOHNS_VALLEY_JCT::LOUTH_JCT, 45-Q2AH, 4500Q2AH-18, 69-Q2AH, 20Q2AH, 69Q2AH-D10S, Q2AH::CHERRY_JCT::BEAMSVILLE_TS, T1-L, Q2AH::HOLLAND_ROAD_JCT::ALLANBURG_TS, Q2AH::HOLLAND_ROAD_JCT::ALLANBURG_TS, Q2AH::WINONA_JCT::SALTFLLEET_JCT, 4500Q2AH-69, 17-Q2AH, Q2AH::WINONA_JCT::SALTFLLEET_JCT, Q2AH::LOUTH_JCT::CHERRY_JCT, Q2AH::PELHAM_JCT::ST.JOHNS_VALLEY_JCT, 91-Q2AH, Q2AH::LOUTH_JCT::CHERRY_JCT, Q2AH::HOLLAND_ROAD_JCT::ST.JOHNS_VALLEY_JCT, Q2AH::CHERRY_JCT::VINELAND_DS, Q2AH::BECK_#1_Q2AH_JCT::BECK_#1_SS, Q2AH::CHERRY_JCT::VINELAND_DS, Q2AH::PELHAM_JCT::ROSEDENE_JCT, Q2AH::BECK_#1_Q2AH_JCT::BECK_#1_SS, Q2AH::SALTFLLEET_JCT::BEACH_TS, Q2AH::SALTFLLEET_JCT::BEACH_TS, Q2AH::ST.JOHNS_VALLEY_JCT::LOUTH_JCT, Q2AH::CHERRY_JCT::BEAMSVILLE_TS, Q2AH::PELHAM_JCT::ST.JOHNS_VALLEY_JCT	CWW	4 Hour		none
Sep 25 2006 5:00 AM	Oct 06 2006 3:00 PM	Beck #2 TS: DL30	CWW	4 Hour		none
Oct 10 2006 3:00 PM	Oct 23 2006 4:00 AM	Cherry JCT: 4500Q2AH-18, 69-Q2AH, 4500Q2AH-MSQ	CWW	4 Hour		none
Sep 25 2006 4:00 AM	Dec 21 2006 7:00 PM	Holland Road JCT: Q5G::HOLLAND_ROAD_JCT::BEAMSVILLE_TS, Q5G::HOLLAND_ROAD_JCT::BEAMSVILLE_TS, Q5G::BECK_#1_SS::HOLLAND_ROAD_JCT, 24Q5G, Q5G::BEAMSVILLE_TS::BEACH_TS, 20Q5G, Q5G::BEACH_TS::GAGE_TS, Q5G::BEACH_TS::GAGE_TS, Q5G::BECK_#1_SS::HOLLAND_ROAD_JCT, Q5G::BEAMSVILLE_TS::BEACH_TS	CWW	4 Hour		none

Table C5 Northeast Zone

Start Date/Time	End Date/Time	Equipment	Outage Type	Recall	Impact	Reduction in Limit
Nov 22 2005 12:00 AM	Jun 14 2030 11:59 PM	Anjigami TS: ANJIGAMI LINE #1, ANJIGAMI LINE #1	CWW	Non-Recallable	none	N/A
Nov 06 2006 6:00 AM	Nov 16 2006 6:00 PM	Dymond TS: 32-D2L, 35D2L-32	CWW	4 Hour	Quebec North Winter Flow In	19
Dec 23 2005 7:00 AM	Dec 31 2006 11:59 PM	Third Line TS: 492, 488	CWW	Non-Recallable	none	N/A
Nov 06 2006 8:01 AM	Nov 24 2006 2:01 PM	Wells GS: T27	CWW	48 Hour	none	N/A
Oct 02 2006 8:30 AM	Oct 08 2006 2:01 PM	Red Rock GS: T2	CWW	48 Hour	none	N/A
Oct 19 2005 12:00 PM	Dec 31 2006 11:59 PM	Third Line TS: 415	CWW	Non-Recallable	none	N/A
Aug 28 2006 5:00 AM	Mar 15 2007 6:00 PM	Hanmer TS: R6-T6, 33T6-W, T6, 33T6- T6, R6N, R6, 33T6-W, R6-T6, 33T6-T6	CWW	4 Hour		
Aug 28 2006 7:00 AM	Mar 15 2007 6:00 PM	Hanmer TS: R6N, R6	CWW	Non-Recallable		
May 07 2006 6:30 AM	Dec 31 2006 11:59 PM	Third Line TS: 482, SAULT2::MACKAY_TS::THIRD_LINE_TS, 635, 632, SAULT2::MACKAY_TS::THIRD_LINE_TS	CWW	Non-Recallable	none	N/A
Jul 11 2006 5:00 AM	Oct 12 2006 4:00 PM	Porcupine TS: H1L501	CWW	8 Week		
Dec 25 2006 5:00 AM	Jan 15 2007 5:00 PM	Porcupine TS: K1K2	CWW	3 Week		
Oct 25 2006 5:00 AM	Nov 02 2006 5:00 PM	Porcupine TS: K1K2	CWW	4 Day		
Nov 07 2006 6:00 AM	Dec 20 2006 6:00 PM	Porcupine TS: K3K4	CWW	4 Week		
Oct 16 2006 5:00 AM	Jan 31 2007 5:00 PM	Porcupine TS: H1L502	CWW	8 Week		
Oct 10 2006 7:00 AM	Oct 25 2006 5:00 PM	Dymond TS: 32-D3K, D3K::NINE_MILE_JCT::DANE_JCT, D3K::NINE_MILE_JCT::DANE_JCT, 68D3K-32, D3K::DYMOND_TS::NINE_MILE_JCT,	CWW	4 Hour		
Dec 11 2006 6:00 AM	Dec 18 2006 6:00 PM	Porcupine TS: K3K4	CWW	5 Hour		
May 24 2006 12:01 PM	Dec 31 2006 11:59 PM	Porcupine TS: TMPA	CWW	Non-Recallable		
Sep 11 2006 7:00 AM	Sep 15 2007 4:00 PM	Martindale TS: T21-P, T21-P, T21-D	CWW	8 Hour		
Dec 23 2005 7:00 AM	Dec 31 2006 11:59 PM	Third Line TS: 488	CWW	Non-Recallable	none	N/A
Aug 31 2006 5:01 AM	Dec 29 2006 6:30 PM	Mississagi TS: P21G::MISSISSAGI_TS::THIRD_LINE_TS, P21G::MISSISSAGI_TS::THIRD_LINE_TS, PT14, 545	CWW	48 Hour	none	N/A
Aug 08 2006 10:01 AM	Oct 16 2006 8:01 AM	MacKay TS: PT3, 766, GRTSH1::MACKAY_TS::GARTSHORE_GS, GRTSH1::MACKAY_TS::GARTSHORE_GS, 615, 618	CWW	Non-Recallable	none	N/A

Table C6 Northwest Zone

Start Date/Time	End Date/Time	Equipment	Outage Type	Recall	Impact	Reduction in Limit
Oct 10 2006 8:30 AM	Nov 16 2006 6:00 PM	Vermilion JCT: 3411-25, K23D::DRYDEN_TS::VERMILION_JCT, 25 K23D, K23D::DRYDEN_TS::VERMILION_JCT	CWW	4 Hour	OMTE, OMTW, EWTE, MPFN	OMTE - 50 MW OMTW - 250 MW EWTE - 75 MW MPFN - 25 MW
Sep 28 2006 8:00 AM	Oct 03 2006 6:00 PM	Mackenzie TS: F25A::FORT_FRANCES_TS::MACKENZIE_ TS, F25A::FORT_FRANCES_TS::MACKENZIE_ TS_22.E25A_20.E25A	CWW	4 Hour	OMTE, OMTW, EWTE, EWTW, MPFN, MPFS	OMTE - 70 MW OMTW - 250 MW EWTE - 75 MW EWTW - 50 MW MPFN - 50 MW MPFS - 140 MW
Nov 22 2006 6:30 AM	Dec 12 2006 5:30 PM	Whiteshell-MAN CTS: K21W::WHITESHELL- MAN_CTS::KENORA_TS, 34-K21W, K21W::WHITESHELL- MAN_CTS::KENORA_TS	CWW	4 Hour	OMTE, OMTW, EWTE	OMTE - 100 MW OMTW - 100 MW EWTE - 50 MW
Nov 27 2006 9:00 AM	Dec 08 2006 7:00 PM	Margach DS: K6F-9, 24T1-L, K6FT1-T2	CWW	4 Hour	none	N/A

Table C7 Ottawa Zone

Start Date/Time	End Date/Time	Equipment	Outage Type	Recall	Impact	Reduction in Limit
Oct 16 2006 6:00 AM	Oct 26 2006 4:00 PM	Bilberry Creek JCT: H9A::BILBERRY_CREEK_TS::BILBERRY_CREEK_JCT, T2-A, A1-A2, 42H9A-77, H9A::BILBERRY_CREEK_TS::BILBERRY_CREEK_JCT	CNW	4 Hour	none	
Nov 01 2006 5:00 AM	Nov 24 2006 6:00 PM	Hawthorne TS: DL24, L24A::HAWTHORNE_TS::ST.LAWRENCE_TS, L22L24, HL24, HT4L24, L24A::HAWTHORNE_TS::ST.LAWRENCE_TS	CWW	8 Hour	FIO	FIO Limit reduced by 100MW from 1900MW to 1800MW
Oct 02 2006 7:00 AM	Oct 28 2006 3:00 PM	St.Isidore TS: T4Y, T4, T4-A2	CWW	48 Hour	none	
Nov 01 2006 9:00 AM	Nov 24 2006 4:00 PM	Hawthorne TS: 48-L24A, L24A::HAWTHORNE_TS::ST.LAWRENCE_TS, 49-L24A, L24A::HAWTHORNE_TS::ST.LAWRENCE_TS	CNW	1 Hour	FIO	FIO Limit reduced by 100MW from 1900MW to 1800MW
Oct 10 2006 6:00 AM	Oct 20 2006 4:00 PM	Overbrook TS: T3, A5RK-63, A2_BUS, T3Q2, A1A2, T3-A2, A1A2, T3J2, T3-A2, A5RK-25	CWW	6 Hour	none	
Oct 24 2006 5:00 AM	Nov 03 2006 5:00 PM	Overbrook TS: T2O1, T2J1, T2-A1, A4K-48, A4K-48, A1_BUS, T2-A1, A4K-63, 8A4K-48, 63-A4K, A4K::OVERBROOK_TS::KING_EDWARD_TS, A4K-63, A4K::HAWTHORNE_TS::BLACKBURN_JCT, T2, A1A2, A4K::OVERBROOK_TS::KING_EDWARD_TS, A4K::BLACKBURN_JCT::CYRVILLE_JCT, A4K::BLACKBURN_JCT::CYRVILLE_JCT, 48-A4K, A4K::HAWTHORNE_TS::BLACKBURN_JCT	CNW	8 Hour	none	
Sep 21 2006 6:00 AM	Oct 04 2006 5:00 PM	Slater TS: A3RM::RIVERDALE_TS::SLATER_TS, A3RM-CA, 46-A3RM, A3RM::RIVERDALE_TS::SLATER_TS	CWW	4 Hour	none	

Table C8 Southwest Zone

Start Date/Time	End Date/Time	Equipment	Outage Type	Recall	Impact	Reduction in Limit
Nov 26 2004 8:00 AM	Dec 25 2006 3:00 PM	Campbell TS: SC4, SC4Q	CWW	30 Minute		none
Oct 16 2006 8:00 AM	Dec 22 2006 3:00 PM	Milton SS: KL570	CWW	5 Day		none
Sep 11 2006 8:01 AM	Oct 06 2006 3:01 PM	Scheifele CTS: T1-D6V, T4T, T4H, T4, T4 D6V, T1, T1B	CWW	24 Hour		none
Oct 12 2006 8:01 AM	Nov 10 2006 3:01 PM	Scheifele CTS: T4-D6V, T4T, T2-D7V, T4, T2, T4H, T2Y	CWW	24 Hour		none
Apr 25 2006 12:45 PM	Dec 31 2006 11:59 PM	Middleport TS: 25-Q26M	CWW	Non-Recallable	FETT	300 MW
Apr 25 2006 12:45 PM	Dec 31 2006 11:59 PM	Middleport TS: 25-Q35M	CWW	Non-Recallable		
May 19 2006 12:00 AM	Dec 31 2006 11:59 PM	Kitchener MTS#3: T3B, T4B	CWW	Non-Recallable		none
Oct 02 2006 8:00 AM	Oct 20 2006 4:00 PM	Trafalgar TS: T14L36	CWW	24 Hour		none
Sep 25 2006 7:00 AM	Oct 06 2006 4:00 PM	Claireville TS: AL571, HL573, M571V::MILTON_SS::CLAIREVILLE_TS, M571V::MILTON_SS::CLAIREVILLE_TS, HL585, L61L71, W4L571, H_BUS	CWW	4 Hour	FETT	200
Sep 25 2006 5:00 AM	Oct 06 2006 6:00 PM	Milton SS: HL573, 51-M571V, L61L71, M571V::MILTON_SS::CLAIREVILLE_TS, M571V::MILTON_SS::CLAIREVILLE_TS, HL585, 40-M571V, H_BUS, 40-M571V	CWW	4 Day	FETT	200
Jun 28 2006 4:00 PM	Dec 31 2006 11:59 PM	Cedar TS: T2E, T1Z	CWW	Non-Recallable		none
Sep 14 2006 7:01 AM	Oct 03 2006 3:01 PM	Scheifele CTS: T1B, BY	DWW	Non-Recallable		none
Oct 12 2006 7:01 AM	Oct 31 2006 3:01 PM	Scheifele CTS: T2Y, BY	CWW	Non-Recallable		none
Nov 02 2006 6:00 AM	Nov 02 2006 4:00 PM	Lambton TS #2.K1_BUS	CWW	4 Hour	Lambton G1 is bottled	
Nov 10 2006 6:00 AM	Nov 10 2006 5:00 PM	Lambton TS #2.K1_BUS	CWW	4 Hour	Lambton G1 is bottled	
Mar 09 2007 11:00 AM	Mar 23 2007 4:00 PM	Lambton TS #2.K1_BUS	CWW	4 Hour	Lambton G1 is bottled	
Mar 24 2007 6:00 AM	Mar 25 2007 4:00 PM	Lambton TS #2.K1_BUS	CWW	4 Hour	Lambton G1 is bottled	
Mar 28 2007 6:00 AM	Mar 29 2007 4:00 PM	Lambton TS #2.K1_BUS	CWW	4 Hour	Lambton G1 is bottled	
Apr 28 2007 6:00 AM	Apr 28 2007 4:00 PM	Lambton TS #2.K1_BUS	CWW	4 Hour	Lambton G1 is bottled	
May 04 2007 6:00 AM	May 04 2007 4:00 PM	Lambton TS #2.K1_BUS	CWW	4 Hour	Lambton G1 is bottled	
Nov 01 2006 6:00 AM	Nov 01 2006 4:00 PM	Lambton TS #2.P1_BUS	CWW	4 Hour	Lambton G2 is bottled	
Nov 11 2006 6:00 AM	Nov 11 2006 5:00 PM	Lambton TS #2.P1_BUS	CWW	4 Hour	Lambton G2 is bottled	
Nov 22 2006 6:00 AM	Dec 06 2006 5:00 PM	Lambton TS #2.P1_BUS	CWW	4 Hour	Lambton G2 is bottled	
Dec 07 2006 6:00 AM	Dec 07 2006 5:00 PM	Lambton TS #2.P1_BUS	CWW	4 Hour	Lambton G2 is bottled	
Dec 08 2006 6:00 AM	Dec 08 2006 5:00 PM	Lambton TS #2.P1_BUS	CWW	4 Hour	Lambton G2 is bottled	
Apr 09 2007 6:00 AM	Apr 09 2007 4:00 PM	Lambton TS #2.P1_BUS	CWW	4 Hour	Lambton G2 is bottled	
Apr 16 2007 6:00 AM	Apr 16 2007 4:00 PM	Lambton TS #2.P1_BUS	CWW	4 Hour	Lambton G2 is bottled	
Nov 20 2006 6:00 AM	Nov 21 2006 5:00 PM	Lambton TS #2.K1_BUS Lambton TS #2.P1_BUS	CWW	4 Hour	Lambton G1 & G2 are bottled	
Mar 07 2007 6:00 AM	Mar 08 2007 4:00 PM	Lambton TS #2.K1_BUS Lambton TS #2.P1_BUS	CWW	4 Hour	Lambton G1 & G2 are bottled	
Dec 09 2006 6:00 AM	Dec 10 2006 5:00 PM	Lambton TS #2.K1_BUS Lambton TS #2.P1_BUS	CWW	4 Hour	Lambton G1 & G2 are bottled	
Mar 26 2007 6:00 AM	Mar 27 2007 4:00 PM	Lambton TS #2.K1_BUS Lambton TS #2.P1_BUS	CWW	4 Hour	Lambton G1 & G2 are bottled	



Table C9 Toronto Zone

Start Date/Time	End Date/Time	Equipment	Outage Type	Recall	Impact	Reduction in Limit
Dec 25 2006 7:00 AM	Jan 19 2007 2:30 PM	Bermondsey TS: T4Y, T4, T4-C14L, T4B	CWW	36 Hour		none
Oct 02 2006 7:00 AM	Oct 12 2006 4:00 PM	Fairchild TS: BY	CWW	10 Hour		none
Dec 25 2006 7:00 AM	Jan 20 2007 6:00 PM	Pickering B SS: L27R, P27C::CHERRYWOOD_TS::PICKERING_B _SS, T5L27, L26L27, KL27, P27C::CHERRYWOOD_TS::PICKERING_B _SS	CWW	2 Day		none
Jan 02 2007 7:00 AM	Jan 23 2007 6:00 PM	Pickering A SS: T2L8, L8L24, KL8, P8C::PICKERING_A_SS::CHERRYWOOD_ _TS, L8D, P8C::PICKERING_A_SS::CHERRYWOOD_ _TS	CWW	2 Day		none
Nov 06 2006 7:00 AM	Nov 24 2006 3:00 PM	Bridgman TS: T14Y-B, T14-L14W, T14X- H, T14	CWW	10 Day		none
Dec 25 2006 7:00 AM	Dec 30 2006 6:00 PM	Cherrywood TS: P6C::CHERRYWOOD_TS::PICKERING_A_ _SS, L6K, DL6, P6C::CHERRYWOOD_TS::PICKERING_A_ _SS, T14-L, L14	CWW	2 Day		none
Jan 02 2007 7:00 AM	Jan 17 2007 6:00 PM	Pickering A SS: T3L7, L7L11, P7C::PICKERING_A_SS::CHERRYWOOD_ _TS, P7C::PICKERING_A_SS::CHERRYWOOD_ _TS, L7H, DL7	CWW	2 Day		none
Nov 07 2006 7:30 AM	Nov 17 2006 3:00 PM	Manby West TS: T14F	DWW	3 Hour		none
Sep 18 2006 7:00 AM	Sep 18 2007 2:00 PM	Tomken TS: SC1B, BY, B, BUS, T1B	DWW	1 Hour		none
Oct 09 2006 3:00 AM	Nov 17 2006 6:00 PM	Cherrywood TS: SS4-X, T14, T14-SS4, T14-J, T14-HT14	CWW	38 Day		none
Oct 11 2006 7:00 AM	Oct 26 2006 2:30 PM	Cherrywood TS: JL550	CWW	6 Hour		none
Oct 13 2006 7:00 AM	Oct 26 2006 2:30 PM	Cherrywood TS: L5T14	CWW	6 Hour		none
Oct 27 2006 7:00 AM	Nov 02 2006 3:30 PM	Cherrywood TS: DT14	CWW	6 Hour		none
Nov 06 2006 8:00 AM	Nov 12 2006 3:30 PM	Cherrywood TS: T14-SS4, T14, T14-SS4, T14-J, T14-HT14, SS4-X, T14-SS4	CWW	3 Hour		none
Oct 30 2006 8:00 AM	Nov 15 2006 3:30 PM	Cherrywood TS: JL543	CWW	6 Hour		none
Nov 07 2006 5:30 AM	Nov 07 2007 3:00 PM	Manby West TS: T2-H1, H1L21, T14-H1, T4-H1, H1L15, T14-H1, T14-H1, T14, T14F, H1H4, H1, BUS	CWW	8 Hour		none
May 24 2006 12:01 PM	Dec 31 2006 11:59 PM	Vaughan MTS #1: T3-V71RP, T4-V75P	CWW	Non-Recallable		none
Oct 16 2006 6:30 AM	Oct 27 2006 2:00 PM	Richview TS: H2L18	CWW	16 Hour		none
Oct 10 2006 7:30 AM	Oct 10 2007 3:00 PM	Manby West TS: T2-H1, C2R, C2M, T2- K3, T2, C2S, T2C2	CWW	2 Hour		none
Sep 25 2006 7:00 AM	Oct 06 2006 4:00 PM	Milton SS: HL585, L6L171, AL571, M571V::MILTON_SS::CLAIREVILLE_TS, M571V::MILTON_SS::CLAIREVILLE_TS, H_BUS, HL573, W4L571	CWW	4 Hour	FETT	200
Oct 23 2006 5:00 AM	Dec 08 2006 6:00 PM	Hearn SS: H7L::HEARN_SS::MAIN_TS, H11L-22, H7L::HEARN_SS::MAIN_TS, 22H7L-L, H7L-22, 22H11L-L, H11L::HEARN_SS::MAIN_TS, H11L::HEARN_SS::MAIN_TS	CWW	21 Day		none
Sep 10 2006 4:00 AM	Oct 25 2006 7:00 PM	Manby East TS: T6-A2, T6, T6-A2, T6Z, TR6-S, TR6-S, TR6-Z, TR6-T, T6Z, TR6-T	CWW	10 Day		none
Dec 18 2006 7:00 AM	Dec 23 2006 2:00 PM	Erindale TS: SC1Q, SC1Q, SC2, SC1, SC2E	CWW	8 Hour		none
Sep 13 2006 6:00 AM	Oct 21 2006 3:00 PM	Manby East TS: ZM16, T6-A2, T6, TR6-Z, TR6-S, R6, T6Z, TR6-T, TR6-T, T6Z, TR6- S, TR6-Z, TR6-T, TR6-T, TR6-Z, TR6-S	CWW	Non-Recallable		none

Table C10 West Zone

Start Date/Time	End Date/Time	Equipment	Outage Type	Recall	Impact	Reduction in Limit
Dec 25 2005 8:00 AM	Dec 25 2007 4:00 PM	Longwood TS: W52-B562L, HL562, 21-B562L, B562L::LONGWOOD_TS::BRUCE_A_TS, B562L::LONGWOOD_TS::BRUCE_A_TS, PL562, W52-B562L	CWW	3 Hour		
Nov 01 2006 6:00 AM	Nov 01 2006 4:00 PM	Lambton TS #2: P1_BUS	CWW	4 Hour		
Nov 02 2006 6:00 AM	Nov 02 2006 4:00 PM	Lambton TS #2: K1_BUS	CWW	4 Hour		
Nov 01 2006 6:00 AM	Nov 11 2006 7:00 AM	Lambton TS #2: P1P2	CWW	4 Hour	Michigan Export, Michigan Import	60, 90
Nov 02 2006 7:00 AM	Nov 10 2006 7:00 AM	Lambton TS #2: K1K2	CWW	4 Hour		
Nov 10 2006 6:00 AM	Nov 10 2006 5:00 PM	Lambton TS #2: K1_BUS	CWW	4 Hour		
Nov 11 2006 6:00 AM	Nov 11 2006 5:00 PM	Lambton TS #2: P1_BUS	CWW	4 Hour		
Nov 20 2006 6:00 AM	Nov 21 2006 5:00 PM	Lambton TS #2: P1_BUS, K1_BUS	CWW	4 Hour	Michigan Export, Michigan Import	50, 50
Nov 20 2006 6:00 AM	Dec 08 2006 5:00 PM	Lambton TS #2: L25L26, 27-L26L, L25L26, PL26, 27-L25N, KL25	CWW	4 Hour		
Dec 09 2006 6:00 AM	Dec 10 2006 5:00 PM	Lambton TS #2: K1_BUS, P1_BUS	CWW	4 Hour	Michigan Export, Michigan Import	50, 50
Mar 07 2007 6:00 AM	Mar 08 2007 4:00 PM	Lambton TS #2: P1_BUS, K1_BUS	CWW	4 Hour	Michigan Export, Michigan Import	50, 50
Mar 09 2007 11:00 AM	Mar 23 2007 4:00 PM	Lambton TS #2: T5-L23, 27-L23N, PL23, L23L24, KL24, L23L24, 27-L24L	CWW	4 Hour		
Mar 26 2007 6:00 AM	Mar 27 2007 4:00 PM	Lambton TS #2: P1_BUS, K1_BUS	CWW	4 Hour	Michigan Export, Michigan Import	50, 50
Mar 28 2007 6:00 AM	Mar 29 2007 4:00 PM	Lambton TS #2: K1_BUS	CWW	4 Hour		
Jan 22 2007 6:00 AM	Feb 04 2007 5:00 PM	Lambton TS #2: L25L26, L29C::LAMBTON_TS_#2::LYNWOOD_JCT  L26L::LAMBTON_TS_#2::LONGWOODJCT, L51L29, L26L::LONGWOOD_TS::LONGWOODJCT, L29C::LAMBTON_TS_#2::LYNWOOD_JCT  L26L::LONGWOOD_TS::LONGWOODJCT, KL29, T13, L26L::LAMBTON_TS_#2::LONGWOODJCT, T, T2B, L29C::LYNWOOD_JCT::CHATHAM_SS, T2, PL26, T5L26, T13J, DL26, T2Y, L29C::LYNWOOD_JCT::CHATHAM_SS, KL29, L23L29	DWW	12 Hour		
Nov 01 2007 7:00 AM	Nov 24 2007 5:00 PM	Lambton TS #2: PS4, PS4-1, PS4-2	CWW	36 Hour	Michigan Export, Michigan Import	600, 600
Oct 02 2006 7:00 AM	Dec 22 2006 4:00 PM	Longwood TS: SS7-T, R7-T, T7-K, T7-LT7, T7	CWW	72 Hour		
Apr 23 2007 6:00 AM	May 06 2007 6:00 PM	Sarnia Scott TS: L21L27	CWW	Non-Recallable		

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