18-MONTH OUTLOOK:

An Assessment of the Reliability of the Ontario Electricity System

From January 2009 to June 2010

ieso
Power to Ontario. On Demand.

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Executive Summary

The outlook for the reliability of Ontario's electricity system remains positive for the next 18 months. Nearly 4,000 megawatts (MW) of new and refurbished supply is scheduled to come into service with much of the new supply either well under construction or in commissioning stages. The Ontario transmission system is also expected to be adequate to reliably supply electricity demands over the next 18 months.

In addition to the new supply, Ontario's import capability is also planned to increase with the first stage of the new interconnection between Ontario and Québec, scheduled for completion by middle of 2009. Additional transmission reinforcements in Québec are scheduled to be in service in May 2010 which are expected to allow transfers up to 1,250 MW.

Reliability within the Greater Toronto Area (GTA) for summer 2009 is expected to be adequate as new facilities are incorporated. These facilities are the Goreway Station and the combined cycle operation of Portlands Energy Centre.

The capability to move energy away from the Bruce area will increase as transmission reinforcements are completed before the seventh Bruce unit is brought into operation.

The implementation of emission reductions for coal-powered generation in the province will commence in 2009. By 2011, these limitations will reduce coal plant emissions to two-thirds below 2003 levels. This Outlook, the first one to incorporate the emission reductions demonstrates that the limitations are achievable over the next 18 month period.

The IESO is continuing to see and forecast lower consumption over the next 18 months as a result of lower industrial demand and growing conservation. Energy demand is forecast to decrease by 1.3% for 2009 and a further 2.6% in 2010. Peak demands are expected to decline throughout the forecast as the conservation impacts gain momentum. Recent events have increased the risk of further negative demand impacts and will be closely monitored. The following table summarizes the planned scenario's peak demands for the upcoming seasons under the Normal and Extreme weather scenarios.

Season	Normal Weather Peak (MW)	Extreme Weather Peak (MW)
Winter 2008-09	23,813	24,825
Summer 2009	24,972	27,038
Winter 2009-10	22,829	23,904

The IESO regularly assesses the adequacy and reliability of Ontario's power system. This 18-Month Outlook provides the IESO's assessment of the reliability of the power system from January 2009 to June 2010. It reflects the most up-to-date forecast information as well as experience gained from past operations.

The 18-Month Outlook is intended for operational planning purposes, and for scheduling generator outage plans. To avoid unacceptably low reserves, it is important to the overall operational planning process that participants adjust their maintenance activities to periods where available resources exceed requirements.

- End of Section

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1.0 Introduction

This Outlook covers the 18-month period from January 2009 to June 2010. It supersedes the report titled "An Assessment of the Reliability of the Ontario Electricity System from October 2008 to March 2010", dated September 23, 2008.

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 January 2009 to June 2010" (IESO_REP_0485) (found on the IESO web site at http://www.ieso.ca/imoweb/pubs/marketReports/18Month_ODF_2008dec.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_2008dec.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_2008dec.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.

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 resource adequacy assessment tables contained in the document can be downloaded from the IESO web site in MS Excel format.

In addition to the comprehensive Outlook, the IESO periodically issues Interim Updates to the 18-Month Outlook between full Outlooks. These updates include a spreadsheet which reflects changes to Total Resources, Total Reductions in Resources, and Reserve Above Requirement values for the Planned 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 supersede information presented in this report.

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2.0 Updates to This Outlook

2.1 Changes to Demand Forecast

The demand forecast has been updated to include the actual demand, weather and economic experience through to the end of September 2008. The economic outlook has been updated based on the most recent data.

Overall, the updated Planned Demand forecast is similar to the previous forecast. Despite the economic turmoil over the past three months the demand forecast has not changed significantly as the forecast was already projecting lower growth in 2009 and 2010. The economic situation has rearranged the factors driving the Ontario economy but the net effect remains the same – demand will decline throughout the forecast.

2.2 Updates to Resources

Since the previous Outlook report was published, the following projects became operational:

- Greenfield Energy Centre (1,153 MW)
- The remaining turbines of Melancthon II Wind Project with the capacity of 99 MW
- Kruger Energy Port Alma Wind Power Project (101 MW)
- Umbata Falls Hydroelectric Project (24 MW)

The net installed capacity registered to participate in the IESO administered wholesale market has, thus, increased by 1,377 MW.

The IESO implemented a new methodology to forecast capacity contribution from the wind generators in this Outlook. This was developed with the stakeholder inputs at the Wind Power Standing Committee. The methodology assumes monthly Wind Capacity Contribution (WCC) values at the time of the weekday peak. WCC values (% of installed capacity) are determined by picking the lower value between the actual historic median wind generator contribution and the simulated 10 year wind historic median value at the top 5 demand hours of the day for each month.

There have been updates to the generator outages submitted by market participants. For this Outlook, generation outage plans submitted to the IESO's Integrated Outage Management System (IOMS) as of November 21, 2008 were used.

2.3 Updates to Transmission Outlook

The list of transmission projects, planned transmission outages and actual experience with forced transmission outages have been updated from the previous 18-Month Outlook. For this Outlook, transmission outage plans submitted to the IOMS as of October 21, 2008 were used.

This Outlook also presents discussions on the major transmission enhancements that are forecast to be in service or are under construction within the outlook period, and the effects of generation and transmission project delays on the system's ability to supply the forecast peak demand.

- End of Section -

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3.0 Historical Review

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

3.1 Weather and Demand Historical Review

The fall weather was pretty normal for September through November. The September peak was higher than August's but that is more a commentary about the end of summer than it is about September.

The financial crisis and ensuing market volatility experienced this fall has had a widespread impact across the global economy. Electricity demand has also been subject to the same volatility. September showed strong growth for industrial customers as demand surged ahead only to fall back again in October and November. This volatility will fade as financial markets return to equilibrium and exchange rates, commodity and fuel prices stabilize. Then the long-term structural drivers will be the main determinants in shaping demand.

Energy demand for the last three months was 2.3% lower (weather corrected) than the same three months last year. Conversely the first eight months were only down 1.4% compared to the previous year.

3.2 Hourly Resource Contributions at Time of Weekday Peak

The figures from 3.1 to 3.5 show the contributions made by wind generators, hydro generators, and net interchange at the time of weekday peak for the period from May 1, 2008 to October 31, 2008. Holiday data was not considered in the analysis since hydro peaking generation and interchange data during this timeframe is not typical of periods of time when Ontario may be challenged from a supply adequacy perspective.

Figure 3.1 indicates the amount of wind generation contributions to the wholesale market at the time of peak demand, compared to the forecast contributions. For the time period below, the IESO historically forecasted available wind generation as 10 percent of installed capacity, assuming a constant contribution over a yearly basis. The forecast methodology has since been improved and will now take into account seasonal variances in wind patterns, among other factors.

Figure 3.1 Wind Generation Contributions at the Time of Peak Demand

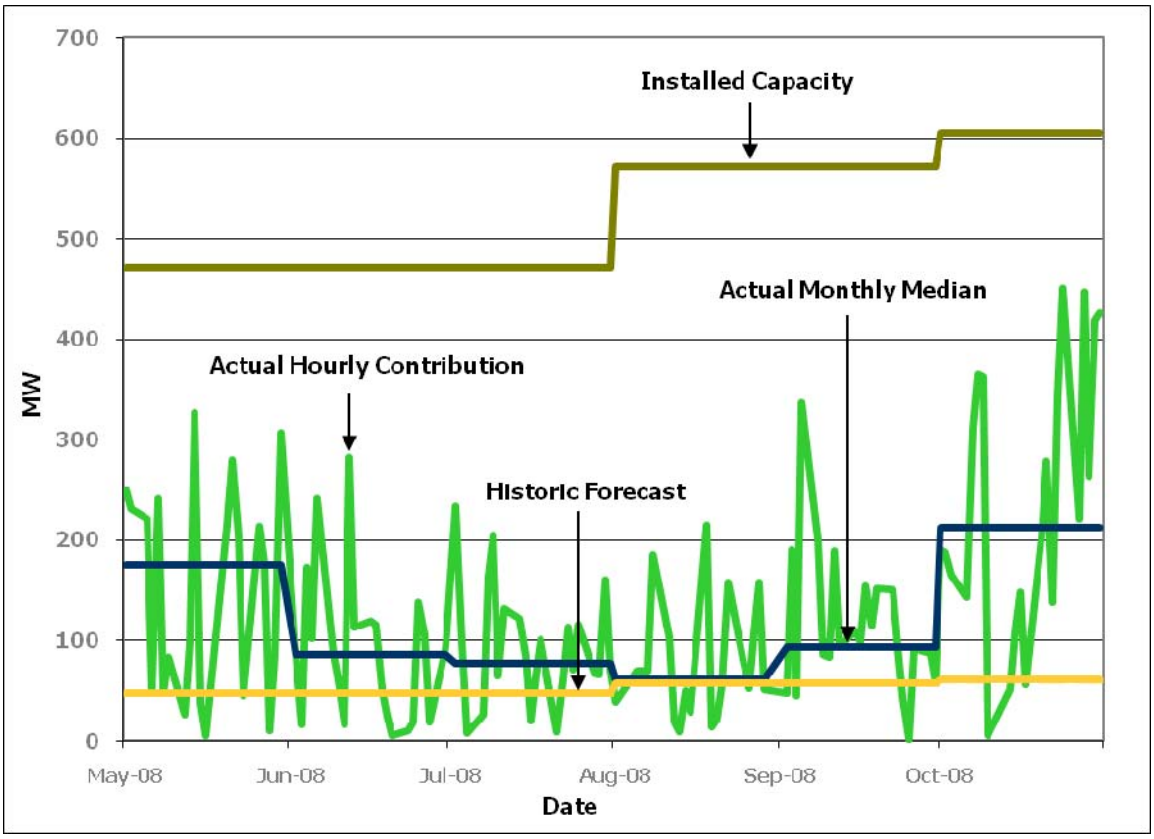
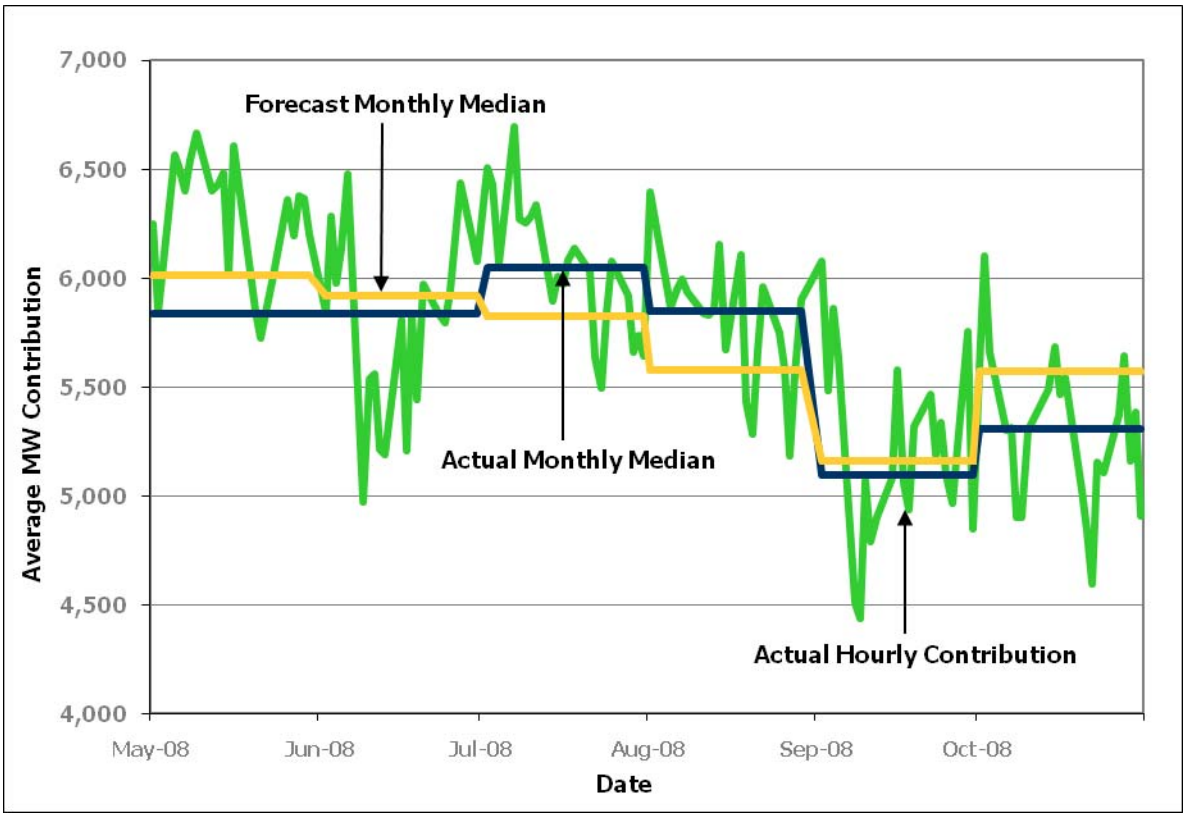


Figure 3.2 indicates the amount of hydro contributions to energy and operating reserve markets at the time of peak demand, excluding weekends and holidays, compared to the forecast contributions.

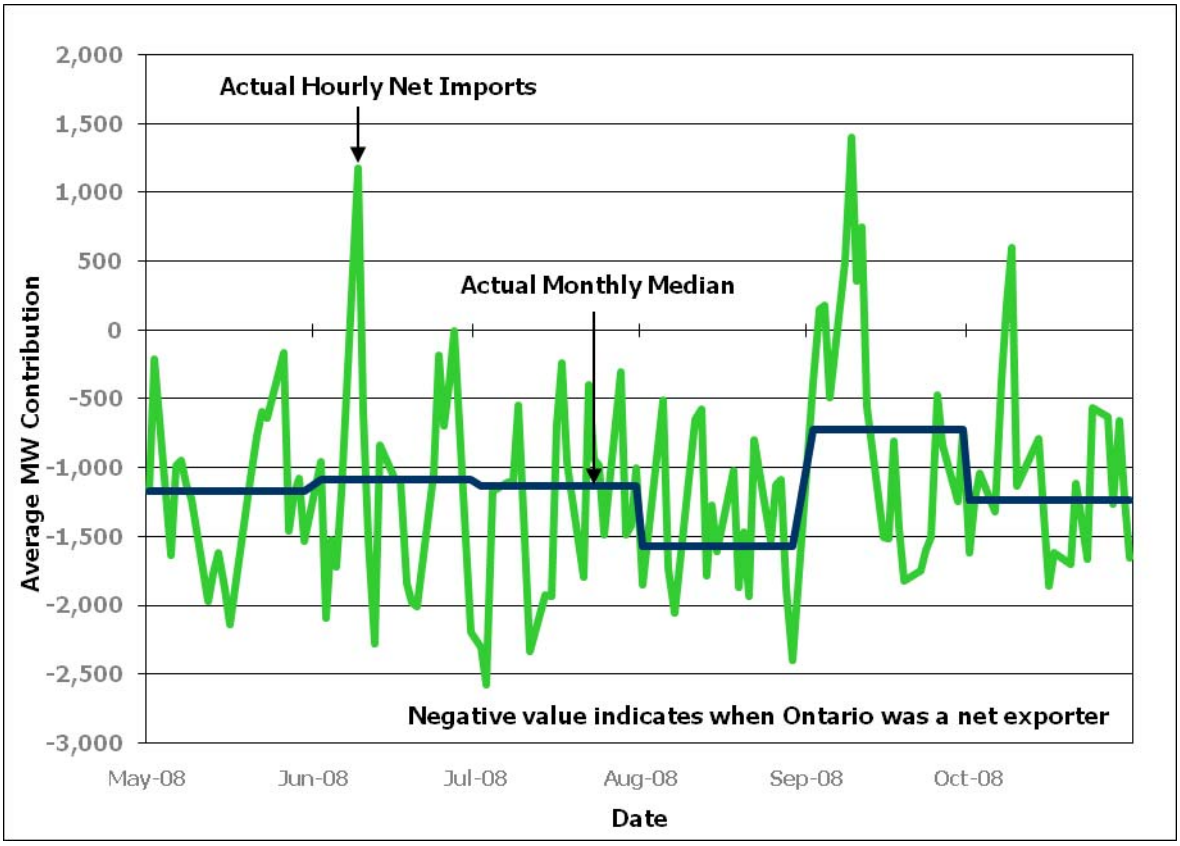
Figure 3.2 Hydro Contributions (Energy and Operating Reserve) at the Time of Weekday Peak



The hydroelectric and associated operating reserve generation follows the historical trend of high output in the spring and summer, decreasing slightly in the fall. Due to higher than normal precipitation levels in Ontario, the hydro contribution was consistently elevated over the previous year's contribution by an average of 450 MW during the summer. An exception occurs in June, when the loss of a major circuit restricted the ability to dispatch hydro resources in the Northeast resulting in a decreased aggregate hydro generation contribution for that month.

Figure 3.3 shows the amount of net imports into Ontario at the time of peak demand, excluding weekends and holidays. Net Interchange is the difference between total imports into Ontario and total exports out of Ontario.

Figure 3.3 Net Interchange into Ontario at the Time of Weekday Peak



The six month period in the graph above shows Ontario as a net exporter. Net interchange saw an average increase of 140 MW from the same time period last year, reaching an average value of 1,122 MW exported for the summer.

New wind and gas generation development during the first half of this year and increased hydroelectric generation in July and August due to above average precipitation levels combined with moderate demands, have increased the supply cushion and lowered Hourly Ontario Energy Price (HOEP) prices. These lower average HOEP prices contributed to Ontario's shift towards the increase in exports.

- End of Section -

4.0 Demand Forecast

The forecast of demand has been updated to reflect the most recent economic, weather and demand information. Though the factors driving the Ontario economy have changed with the recent volatility, the outlook for electricity demand is that it will continue to fall throughout the forecast. The economic factors are:

- Canadian dollar – the dollar has dropped increasing the competitiveness of Ontario exporters. However, a U.S. recession means that exporters are facing weaker demand.
-
- Low interest rates – should act to boost consumption and business investment. However, consumer and business confidence has been significantly eroded due to the financial crisis
- Consumer confidence – government stimulus packages and the central bank's market intervention will be aimed at restoring equilibrium to markets and shoring up consumer and business confidence. How consumers and businesses react to these initiatives will determine the severity and length of the recession.

Going forward, growth in demand from new households and increased penetration of end-use devices will be more than offset by economic and conservation impacts.

Demand for the eleven months of 2008 is tracking 1.7% lower (weather-corrected) than in 2007. The economic impacts and conservation are the cause for the decline. Demand from directly connected industry dropped by 2.5% for the eleven months of 2008 compared to the same time period for 2007.

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:

- Normal weather; and
- Extreme weather.

The impact of varying weather is modeled probabilistically in the calculation of the required resources for each week of the study period.

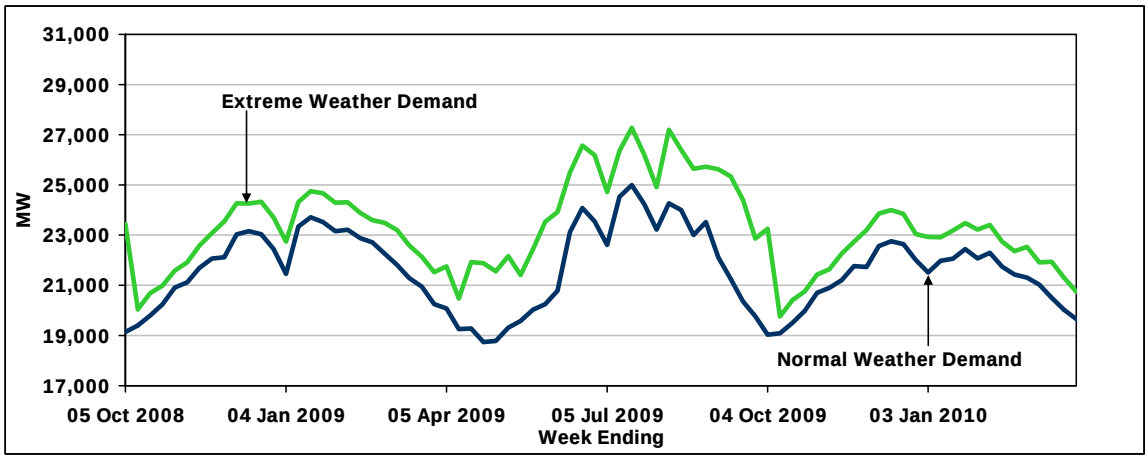
In addition to the weather scenarios, the demand forecast has two scenarios that differ in their treatment of conservation. The Planned Demand scenario includes the impacts of additional conservation programs and initiatives by the Ontario Power Authority (OPA) and electricity distributors. As well, this scenario includes the impact of planned additions to load-displacing generation. All these impacts are decremented from demand under the Firm scenario which only accounts for existing levels of conservation and existing load-displacing generation. Demand measures, such as dispatchable loads and price responsive demand, are treated as a resource and are further covered in the Resource Adequacy Sections 5.1 and 5.2. Table 4.1 shows the various conservation and demand management components and their treatment under the two scenarios.

Table 4.1 Conservation and Demand Management Scenarios

Conservation and Demand Management Components	Planned Scenario	Firm Scenario	Treatment
Conservation	Targeted levels included	Existing levels included	Decrement demand
OPA Demand Response 1	Targeted levels included	Existing levels included	Resource
OPA Demand Response 2	Targeted levels included	None	Resource
OPA Demand Response 3	Targeted levels included	Existing levels included	Resource
OPA Contracted Demand Response	Existing levels included	Existing levels included	Resource
RESOP Generation	Projected levels included	Existing levels included	Decrement demand
CESOP Generation	Projected levels included	Existing levels included	Decrement demand if non-MP
CHP Generation	Projected levels included	Existing levels included	Decrement demand if non-MP

Under the Planned Demand scenario, energy demand is expected to decrease by 1.3% in 2009 (147.5 TWh) and a further 2.6% in 2010 (143.6 TWh) as conservation initiatives further reduce electricity demand. Under this scenario, the Normal weather peak demand for the winter of 2008-09 is expected to be 23,813 MW, while the Extreme weather peak is projected at 24,825 MW. The summer Normal weather peak is expected to hit 24,972 MW while the Extreme peak reaches 27,038 MW.

Figure 4.1 Demand Forecast Range



For further discussion of how we identify peak demands and treat demand measures please refer to the Ontario Demand Forecast document, Section 3.0 *Forecasting Process and Assumptions*.

- End of Section -

5.0 Resource Adequacy Assessment

This section provides an assessment of the adequacy of resources to meet the forecast demand. From this assessment the generator owners receive guidance for planning outages. When planned outages would adversely affect the reliability of the grid, as indicated by reserves below required levels, the IESO has the authority to deny approval of outages based on their order of precedence.

In recognition of the uncertainty that exists regarding the future availability of resources, two resource scenarios are described in this section: the Firm Scenario and the Planned Scenario (See section 5.2 for a description of the scenarios).

As was reported in the previous Outlook, the supply picture is expected to change significantly over the next 18 months. Nearly 4,000 MW of new and refurbished supply is scheduled to come into service, including more than 2,600MW of gas-fired generation, 750 MW of refurbished nuclear generation, 100 MW of hydroelectric generation, 60 MW of generation from by-product fuels and approximately 400 MW of wind capacity. Most of the new supply projects have started their commissioning phase or are in the construction phase. In addition, the new interconnection with Québec will increase transfer capabilities by the middle of 2009.

The existing installed generating capacity within Ontario is summarized in Table 5.1. This capacity does not include generation that is commissioning.

Table 5.1 Existing Installed Generation Resources as of December 12, 2008

Fuel Type	Total Capacity (MW)	Number of Stations
Nuclear	11,426	5
Hydroelectric	7,754	69
Coal	6,434	4
Oil / Gas	6,652	24
Wind	704	6
Biomass / Landfill Gas	75	5
Total	33,045	113

5.1 Committed and Contracted Generation Resources

Table 5.2 summarizes the significant generation facilities that are scheduled to come into service, be upgraded or retired within the next 18 month study period. This includes generation projects in the IESO's Connection Assessment and Approval Process (CAA) that are under construction and projects contracted by the OPA. 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 at http://www.ieso.ca/imoweb/connassess/ca.asp. Generator owners or operators have provided the information regarding the status of their projects listed in Table 5.2.

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 contract, the

estimated effective date is the best estimate of the date when the contract requires the additional capacity to be available. In the event that a project is delayed, such that the commercial in-service date is expected to be later than the contract date, the estimated effective date will be the best estimate of the commercial in-service date for the project.

Table 5.2 Committed and Contracted Generation Resources

Proponent/Project Name	Zone	Fuel Type	Estimated Effective Date	Project Status	Capacity Considered in Scenario (MW)	
					Firm (MW)	Planned (MW)
Lac Seul Hydroelectric Project	Northwest	Water	2008-Q4	Commissioning	13	13
Enbridge Ontario Wind Farm (formerly Underwood WGS or Leader Wind Power Projects)	Southwest	Wind	2009-Q1 *	Commissioning	182	182
Portlands Energy Centre Combined Cycle Operation	Toronto	Gas	2009-Q1	Commissioning	245	245
St. Clair Energy Centre	West	Gas	2009-Q1	Commissioning	577	577
Goreway Station Project	Toronto	Gas	2009-Q1	Commissioning	839	839
Return of Unit 7 at Beck 1 as a 60 Hz unit	Niagara	Water	2009-Q1	Construction	59	59
Wolfe Island Wind Project	East	Wind	2009-Q2	Construction		198
Algoma Energy Cogeneration Facility	Northeast	By-Product Gas	2009-Q2	Construction		63
Nuclear Upgrade	N/A	Uranium	2009-Q3 *	Construction	27	27
East Windsor Cogeneration Centre	West	Gas	2009-Q3	Construction		84
Island Falls Hydroelectric Project	Northeast	Water	2009-Q4	Approvals & Permits		20
Retirement of Lower Wawaitin 25 Hz generation to convert to 60 Hz	Northeast	Water	2010-Q1	Connection Assessment	-11	-11
Halton Hills Generating Station	Southwest	Gas	2010-Q2	Construction		632
Bruce Unit 2	Bruce	Uranium	2010-Q2 *	Construction		750
Thorold Cogeneration Project	Niagara	Gas	2010-Q2	Construction		236
Total					**1,930**	**3,913**

Notes to Table 5.2:

1. * The estimated Effective Date or the Capacity for the project or both may have changed from the last Outlook.
2. The total may not add up due to rounding.
3. Project status provides a general indication of the project progress. The standard milestones used are: Connection Assessment, Approvals & Permits, Construction, and Commissioning.
4. "Connection Assessment" indicates that the project is undergoing a system impact assessment with the IESO.
5. "Approvals & Permits" indicates that the project proponent is in the process of acquiring major approvals and permits required to start construction (e.g. environmental assessment, municipal approvals etc).
6. "Construction" means that the project is under construction,
7. "Commissioning" indicates that the project is undergoing commissioning tests with the IESO.

5.2 Summary of Scenario Assumptions

In assessing future resource adequacy, it is necessary to make a number of assumptions regarding the magnitude of resources expected to be available for operation. Two scenarios were considered in this Outlook: a Firm Scenario and a Planned Scenario. Both scenarios were established starting from the existing installed resources shown in Table 5.1.

For both scenarios, all existing generating resources (excluding the units that are scheduled to retire) and resources that are scheduled to come into service are assumed to be available for the duration of the study period, except for periods of time when the generator owner or operator has submitted planned outages for their generating units.

The generation capability assumptions are as follows:

- Hydroelectric capability, which includes energy and operating reserve is based on median historical values of hydroelectric hourly energy production and capacity contribution to operating reserve during weekday peak demand hours from May 2002 to February 2008.
- Capacity and energy contributions from thermal generators are based on market participant submissions, including planned outages, expected forced outage rates and seasonal deratings.
- For wind generators, monthly Wind Capacity Contribution (WCC) values are used at the time of weekday peak and total energy contribution is assumed to be 30%. (refer to Methodology to Perform Long Term Assessments document to see how the WCC values are derived),

The Planned Scenario assumes quantities of demand measures and generation capacity based on existing resources plus significant resource changes that are scheduled to occur within the 18-month study period. These include:

A. Existing Installed Resources: total capacity of 33,045 MW (refer to Table 5.1)

B. All new generation facilities and capacity changes to the existing facilities (refer to Table 5.2)

C. Demand Forecast:

    - The demand forecast is reduced to account for the impacts of targeted conservation.
    - Demand measures of 542 MW which include dispatchable loads and loads contracted with the OPA (refer to column "Demand Measures" in Table A2 or A7 in Appendix A). Based on historical data, it is assumed that 55.5% of dispatchable demand is available at the time of the weekly peak.
    - Demand measures are forecast based on market participant information and actual market experience.

The Firm Scenario assumes quantities of demand measures and generation capacity based on the existing resources and a limited set of planned capacity changes or additions (refer to Table 5.2, column labeled "Firm" under heading "Capacity Considered in Scenario"). This scenario includes:

A. Existing Installed Resources: total capacity of 33,045 MW (refer to Table 5.1).

B. Capacity changes to existing facilities (refer to Table 5.2).

C. Additional generating resources that have started their commissioning activities with contributions beginning on the date that the facility is expected to be in-service.

D. Additional generating resources that are expected to become available in the first three months of the Outlook study period (regardless of commissioning status), with contributions beginning on the date that the facility is expected to be in-service.

E. Existing demand measures assumed at 378 MW for the entire period of the Outlook (refer to column "Demand Measures" in Table A1 or A6 in Appendix A). Demand values (Table A4 in Appendix A) exclude targeted conservation.

The resource and demand scenario assumptions are summarized in the Table 5.3

Table 5.3 Summary of Scenario Assumptions

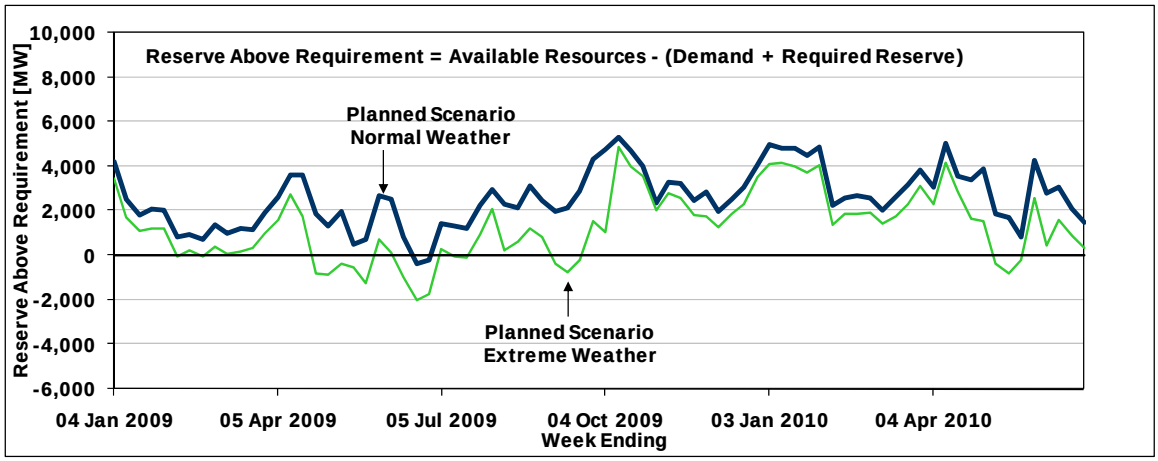
<table>
<tr><th>Firm Scenario</th><th>Planned Scenario</th></tr>
<tr><td colspan="2">Resource Assumptions</td></tr>
<tr><td>Existing Installed Resources (refer to Table 5.1)</td><td>Existing Installed Resources (refer to Table 5.1)</td></tr>
<tr><td>Capacity changes to existing facilities in Table 5.2</td><td rowspan="3">All projects listed in Table 5.2</td></tr>
<tr><td>Generating resources in Table 5.2 that have started their commissioning activities</td></tr>
<tr><td>Generating resources in Table 5.2 that are expected to become available in the first three months of the Outlook study period (regardless of commissioning status)</td></tr>
<tr><td colspan="2">Demand Assumptions</td></tr>
<tr><td rowspan="2">Existing conservation and demand measures</td><td>Existing and targeted conservation</td></tr>
<tr><td>Additional Demand measures that include dispatchable loads and loads contracted with the OPA</td></tr>
</table>

5.3 Planned Scenario with Normal and Extreme Weather

Weekly Adequacy Assessments for the Planned Scenario

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 Scenario with Normal vs. Extreme Weather

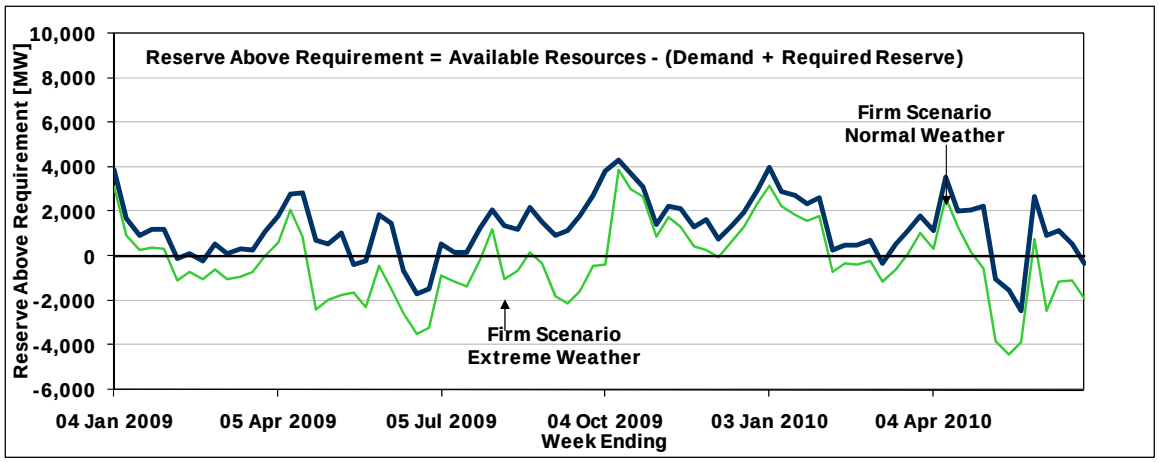


5.4 Firm Scenario with Normal and Extreme Weather

Weekly Adequacy Assessments for the Firm Scenario

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: Firm Scenario with Normal vs. Extreme Weather



5.5 Comparison of Resource Scenarios

Table 5.4 shows a snapshot of the forecast available resources, under the two scenarios, at the time of the summer and winter peak demands over the study period.

The monthly forecast of energy production capability, as provided by market participants, is included in Appendix A, Table A9.

Table 5.4 Summary of Available Resources

Notes	Description	Winter Peak 2009		Summer Peak 2009		Winter Peak 2010	
		Firm Scenario	Planned Scenario	Firm Scenario	Planned Scenario	Firm Scenario	Planned Scenario
1	Installed Resources (MW)	33,484	33,484	34,959	35,220	34,986	35,351
2	Imports (MW)	0	0	0	0	0	0
3	Total Resources (MW)	33,484	33,484	34,959	35,220	34,986	35,351
4	Total Reductions in Resources (MW)	5,427	5,354	5,799	5,914	5,520	5,764
5	Demand Measures (MW)	378	542	378	542	378	542
6	Available Resources (MW)	28,435	28,672	29,538	29,848	29,844	30,129

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. 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.

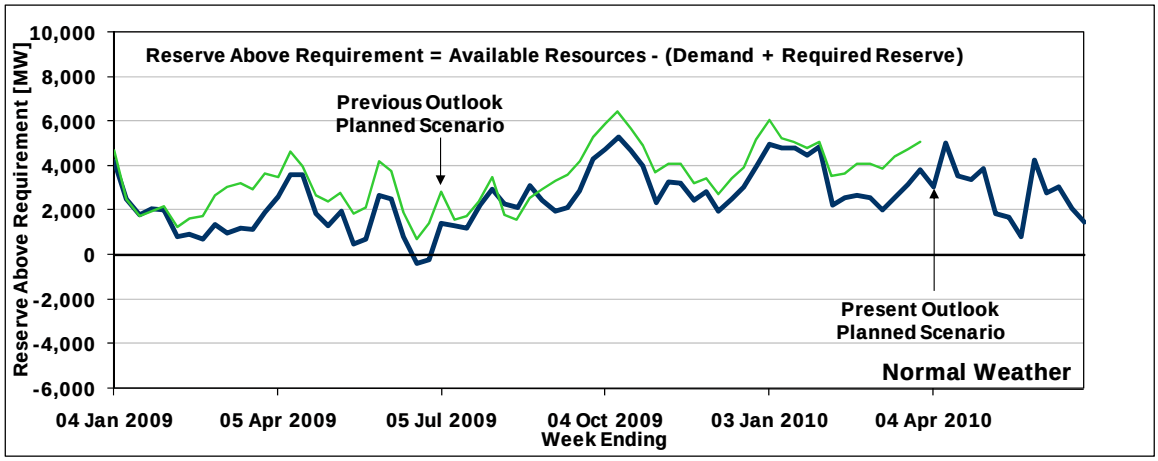
5. Demand Measures: This is the amount of demand assumed available to be reduced, under each resource scenario.

6. Available Resources (MW): This equals Total Resources (line 3) minus Total Reductions in Resources (line 4) plus Demand Measures (line 5).

Comparison of the Weekly Adequacy Assessments for the Planned Scenario

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 27, 2008. The difference is mainly due to the changes to generator outages and the change in the demand forecast.

Figure 5.3 Reserve Above Requirement: Planned Scenario with Present Outlook vs. Previous Outlook



5.6 Resource Adequacy Risks

The forecast reserve levels for both the Firm and the Planned Scenarios should be assessed bearing in mind the risks discussed below.

5.6.1 Extreme Weather

The Firm and Planned Scenarios 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 scenarios 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). 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 (as seen earlier in Figures 5.1 and 5.2), clearly illustrates circumstances could arise under which reliance on a combination of interconnected supply, rejection of planned generator maintenance or emergency actions may be

required. This emphasizes the continued need for a mix of resources that provides for a reliable supply, conservation programs and demand measures within Ontario.

5.6.2 New Facilities

For the 18 month period under study, the improving demand-supply situation, seen mainly in the Planned Scenario, is dependent on the additional generation, conservation programs and demand measures coming into service as forecast.

The OPA monitors and reports on the progress of the electricity supply contract projects on a quarterly basis at their web site found below:

http://www.powerauthority.on.ca/Page.asp?PageID=861&SiteNodeID=120&BL_ExpandID=93

5.6.3 Generator Planned Outages

A number of large generating units perform their maintenance in the shoulder seasons and are scheduled to return to service from outage prior to summers 2008 and 2009. 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 other planned generator outages.

With the transition from winter peaking to summer peaking over the last number of years Ontario has experienced several years where the dual peaking nature of the Ontario system (roughly equivalent peaks in winter and summer) meant that outages must be scheduled in shorter spring and fall periods. Inevitably this meant that some long duration outages had to be scheduled into the start of the peak seasons, creating the potential that any extensions of these outages would occur when the generation is most needed.

In the previous report, the IESO reported on a new opportunity for a limited amount of maintenance activities through the winter period. This opportunity continues to be available. Until recently, the IESO generally limited generators to scheduling their planned maintenance outages during the fall and spring "shoulder months" when demand tends to be lower. With more domestic resources becoming available, limited opportunities now exist for the IESO to accommodate planned generator outages in the winter months as well. These opportunities should provide generators with more flexibility to schedule their maintenance outages which should in turn provide greater assurances going forward that Ontario's generation fleet will be well prepared for the high demand summer months.

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 challenge the ability of generator owners/operators to accommodate larger number and magnitude 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.

5.6.4 Lower than Forecast Generator Availability

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.

5.6.5 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.

It is not possible to accurately forecast precipitation amounts far in advance. 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, as was experienced in the summer of 2005.

5.6.6 Wind Resource Risks

The Outlook assumes monthly WCC values to forecast the capacity contribution from wind generators. There is a risk that wind power output could be less than the WCC value at the time of the weekly peak if:

- the wind isn't blowing, or
- extreme cold weather or high wind speeds necessitate that wind generator output be curtailed to prevent equipment damage (these conditions are expected to be rare).

The geographic diversity of Ontario wind resources, as more sites are commissioned, should mitigate some of the risk associated with wind speed variability.

5.6.7 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. Independent of the best efforts of generator owners to maintain generator capability, there are sometimes external factors which may impact the capability to produce.

Some outages and deratings, such as environmental limitations and high ambient temperature deratings, may be more likely to occur at roughly the same time as the extreme weather conditions that drive peaks in demand.

For example, there are risks that gas-fired generators may not be capable of producing the maximum capacity that the market participant has forecast to be available at the time of peak. The natural gas and electricity sectors are converging as natural gas becomes one of the more common fuels in North America for electric power generation. The IESO is jointly working with the Ontario gas transportation industry to identify and address issues.

5.6.8 Transmission Constrained Resource Utilization

Transmission constraints may occur more often than expected due to multiple unplanned outages and may also have greater impact than expected on the ability to deliver generation to

load centres. This is particularly true for large transformers whose repair or replacement time can be much longer than for transmission lines. Although many transmission limitations are modeled in accordance with recognized reliability standards, limitations resulting from multiple forced transmission outages can have significant impacts on resource availability.

Constraints may also occur due to weather conditions that result in both high demands and higher than normal equipment limitations. For example periods of low wind combined with hot weather not only cause higher demands but also result in lower transmission capability. This can affect the utilization of internal generation and imports from neighbouring systems at critical times. Transmission constraints that result from loop flows can be particularly hard to predict because they result not only from the conditions within Ontario but from the dynamic patterns that are taking place within and between other areas. Depending on the direction of prevailing loop flows, this may improve or aggravate the ability to maintain reliability.

During high demand periods, the availability of high-voltage capacitors and the capability of generators to deliver their full reactive capability also become critically important for controlling voltage to permit the higher power transfers that are required. Outages or de-ratings to these reactive resources can restrict power transfer from generators and imports, and make it difficult to satisfy the peak demands.

In this Outlook the calculated values for transmission constrained generation presented in Appendices A3 and A8 corresponds to a generation dispatch that would maximize the possible reserve above requirements in Ontario. However, in real time operation, the actual amount of bottled generation will depend on many conditions prevailing at the time, including the local generation levels, overall generation dispatch and the direction and levels of flows into and out of Ontario.

5.7 Surplus Supply Scenarios

Previous reports have focused exclusively on peak demand periods. However, reliability risks can also occur when electricity demand is at its lowest such as during the overnight and weekend hours of temperate weather periods. Certain types of generation such as nuclear and some hydroelectric generators must maintain minimum output levels to ensure the generation is available in future high demand hours, or to respect environmental or other operational constraints. At the same time, wind generators can also be contributing, as they operate whenever they have the right conditions. Electricity supply from baseload generation including nuclear, hydroelectric and wind sources is expected to increase in the latter half of the Outlook period and may at times exceed demand. Through planning and coordination with market participants, the IESO will be addressing the expected periods of surplus generation to mitigate any potential impacts to reliability. Surplus baseload supply situations have occurred infrequently to date, and have always been accompanied by very low energy prices. The low prices not only serve to discourage additional supply in those hours, but also to encourage any market based pricing consumers to shift whatever consumption they can out of higher priced hours into these very low priced periods.

- End of Section -

6.0 Transmission Reliability Assessment

This section provides an assessment of the reliability of the Ontario transmission system for the 18 month study period of this Outlook.

A main objective of the transmission reliability assessment is to identify all major transmission and load supply projects that are planned for completion during the next 18 months and to present their reliability benefits.

A second objective 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.

A third objective of the transmission reliability assessment is to identify equipment outage events on the IESO controlled grid that could require contingency planning by market participants or by the IESO. As a result, planned transmission outages are reviewed in correlation with major planned resource outages and also the scheduled completion dates of new generation and transmission projects to identify transmission system reliability risks and to highlight those outages that should be rescheduled or changed.

6.1 Transmission Projects

The IESO requires transmitters to provide information on the transmission projects that are planned for completion within the 18 month period. The list of major transmission projects planned to be in service in the 18 month period is shown in Appendix B. Projects that are in service or whose completion has been deferred well beyond the period of this outlook are not shown. The list includes only the transmission projects that represent major modifications or are considered to provide significant improvement to system reliability. Minor transmission equipment replacements or refurbishments are excluded. For projects assessed or being assessed under the IESO's Connection Assessment and Approval process, the assigned identification number is included for cross referencing.

Additional information regarding the transmission projects that have been assessed by the IESO can be found at the IESO's Connection Assessments web page, at the following location: http://www.ieso.ca/imoweb/connAssess/ca.asp.

6.2 Load Supply Projects

The electricity demand growth experienced in Ontario in the last decade has resulted in some area loads reaching or exceeding the capability of the local transmission system. To address this problem and provide additional transmission capacity for future load growth, Ontario transmitters and distributors have initiated plans to build new or replace existing transformer stations and reinforce the transmission system where necessary. Nine projects relating to load supply improvements will be placed in service during the timeframe of this Outlook.

Connection assessments performed by the IESO concluded that these proposed projects will provide relief to existing transformer stations, some of which are presently overloaded, and will

improve the supply to various load areas. In some of these assessments the IESO found that the local transmission system may be reaching its maximum capability and identified the need for installation of local voltage support equipment. As a result, Hydro One initiated the installation of low voltage capacitor banks at a number of transformer stations in the system.

Transmission assessments performed by transmitters in collaboration with distributors also identified transmission reinforcements required to ensure load supply reliability. These needed reinforcements were confirmed by the IESO during related connection assessments. Several of these transmission reinforcements are currently under construction or are to start construction soon, and are planned for service during period of this Outlook. The proposed Essa to Stayner 230 kV transmission line and Venessa junction to Norfolk 115 kV transmission line are examples of new transmission reinforcements planned for in service in the second half of 2009 that will improve load supply reliability well beyond the timeframe of this Outlook.

6.3 Transmission Outages

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 that combine to create a scheduled duration of greater than five days. As time approaches actual equipment outage schedule, additional outage requirements and changes as well as outages with a scheduled duration of five days or less could impose further transmission capacity restrictions. 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 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 interconnection limits. Where multiple outages are scheduled during the same period, the combined effect of all outages on the reduction in transmission interface and interconnection limits is presented. Where multiple outages are scheduled during the same period and reliability is affected, the IESO will request the transmitter to reschedule some of the outages. 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).

The planned transmission outages are reviewed in correlation with major planned resource outages and scheduled completion dates of new generation and transmission projects. This allows the IESO to identify transmission system reliability concerns and to highlight those outages that should be adjusted. A change to an outage may include rescheduling the outage, reducing the scheduled duration or reducing recall time.

This assessment will also identify any resources that have potential or are forecast to be constrained due to transmission outage conditions. 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 deficiency in reserve is forecast. 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 October 21, 2008 were used.

There are a substantial number of planned outages identified during the period of this Outlook that are required to accommodate equipment maintenance or future changes. Their specific impact on reliability is identified in subsequent sections of this report.

6.4 Transmission System Adequacy

Generally, IESO Outlooks identify the areas of the IESO controlled grid where the projected extreme weather loading is expected to approach or exceed the capability of the transmission facilities for the conditions forecast in the planning period. Where the loading was projected to exceed the capability of the transmission facilities, there is also an increased risk of load interruptions.

IESO continues to work with Hydro One and other Ontario transmitters, 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 peak demand periods of this Outlook. IESO has also been working closely with the OPA to specify the transmission enhancements location, timing and minimum requirements to satisfy reliability standards.

The Ontario transmission system with the planned system enhancements and known transmission outages is expected to be adequate to supply the demand under the extreme and normal weather conditions forecast for the 18 month period of this Outlook.

6.4.1 Toronto and Surrounding Area

The Greater Toronto Area (GTA) electricity supply is mainly provided by the Trafalgar, Claireville, Parkway and Cherrywood 500/230 kV autotransformers, Pickering generation station (GS) and other local resources as depicted in Figure 6.1. The availability of these facilities is critical to ensure reliable electricity supply for Toronto and surrounding area.

Figure 6.1 Greater Toronto Area Electricity System

The reliable supply of demand in the GTA under extreme weather conditions forecasted for the Outlook period requires a minimum number of autotransformers at Trafalgar, Claireville, Parkway and Cherrywood and Pickering units in service at rated capabilities. For summer 2009, all autotransformers and Pickering units are expected to be in service. In addition, for summer 2009, Goreway Station and the combined cycle operation of Portlands Energy Centre are expected to be available. Towards the end of this Outlook period Halton Hills GS is also expected to be available.

Following the 2007 outages and deratings associated with the GTA 500/230 kV autotransformers, Hydro One implemented an extensive autotransformer remediation program. For the start of this Outlook period, Hydro One will have two spare autotransformers available.

Under summer 2009 extreme weather conditions with all transmission facilities and resources in the GTA in service, the projected loadings on the Trafalgar, Claireville, Parkway and Cherrywood autotransformers are expected to be within their continuous capability prior to any contingency. The presence of the Goreway Station will reduce the loadings of all GTA autotransformers and thereby, increase their spare capability. This relief will be mostly evident at Claireville with a reduction in transformer station loading equivalent to about half of the Goreway Station output.

Loadings on the autotransformers are not expected to exceed their long term emergency capability following the forced outages of any one autotransformer and two Pickering units. Loadings are also expected to be within their long term emergency capability following the forced outages of any two autotransformers except at Claireville. Subsequent autotransformer outages or deratings under any of these outage conditions could result in loadings of remaining GTA autotransformers exceeding their long term emergency limits.

The Claireville and Trafalgar autotransformers have the lowest spare capacities. Following the forced outage of a second Claireville autotransformer the loadings on the remaining two Claireville autotransformers would be above applicable limits and mitigating measures would be required. At Trafalgar with one autotransformer out of service the capability of the remaining one is sufficient to reliably supply loads if all local transmission facilities are in service.

The Cherrywood autotransformer loadings are strongly influenced by Pickering generation. In general, the spare capacity at Cherrywood is sufficient if four or more Pickering units are available.

The Parkway autotransformers are adequate to supply the extreme weather forecast within the timeframe of this Outlook. Under certain outage conditions their spare capability may be useful to provide temporary relief of the Claireville and/or Cherrywood autotransformers.

Under summer normal weather conditions, the projected loadings on the GTA autotransformers should not exceed their long term emergency capability following the forced outages of any two autotransformers and two Pickering units.

The supply reliability to central Toronto is expected to improve during the period of this Outlook as well. The completion of the Portlands Energy Centre will assist in reducing loadings on the Cherrywood autotransformers and in eliminating possible overloads of the Leaside autotransformers. The reduction in Leaside autotransformers loading is expected to be equivalent to Portlands Energy Centre output, while the reduction in Cherrywood autotransformers loading is expected to be equivalent to about half of Portlands Energy Centre output.

The supply reliability to west GTA under extreme weather conditions is also expected to improve with the availability of Halton Hills generating station (GS) starting in the second quarter of 2010. Like Goreway Station, the presence of Halton Hills GS will reduce loadings on all GTA autotransformers. The largest loading reduction will occur on the Trafalgar autotransformers.

To manage increasing fault levels at Claireville transmission station (TS) resulting from the connection of Goreway Station, the 230 kV bus at Claireville must be operated split. The reconfiguration work at Claireville, which is ongoing and expected to be completed by the end of 2009, will allow the 230 kV bus to be operated open and achieve an evenly distributed loading of the autotransformers on each half of the split. In addition, the reconfiguration work will improve

the supply reliability to transformer stations connected to the 230 kV transmission circuits leaving Claireville TS.

The 230 kV transmission corridor between Trafalgar and Richview which supplies Brampton, Mississauga and parts of Caledon and Halton Hills may become loaded above capability during summer 2009 under extreme weather conditions. The new Hurontario switching station and the expansion of the 230 kV lines from Cardiff TS are planned for service before summer 2010 and will relieve the loading of this corridor and alleviate this problem.

In the York Region, the transformer station capacity in the Newmarket and Aurora area has been exceeded due to load growth. A new transformer station is planned to be in service by mid 2009, followed by the addition of a new generation resource in 2011 that was recently announced by the OPA. Until then, the potential overload will be partially mitigated by temporary load transfers, by temporarily increasing the equipment operating ratings and via incentives for demand response programs in the area.

Outages for the Claireville TS enhancement work described above continue in the first half of 2009. Some outages coincident with an outage scheduled in the Southwest zone will reduce the limit on the Flow East to Toronto (FETT) transmission interface by up to 1,000 MW.

6.4.2 Bruce and Southwest Zones

Planned refurbishments at the Bruce generation station and new wind power resources in southwestern Ontario will increase generation capacity in the Bruce and Southwest zones. A number of enhancements are planned to avoid potential constrained generation of these resources. In the near term, transmission reinforcements that will increase the transfer capability out of Bruce include the up-rating of the Hanover to Orangeville 230 kV circuits and the installation of additional high voltage shunt capacitors at Buchanan, Middleport and Nanticoke. These projects are of a high priority and are staged for completion before the expected time when Bruce is operated with seven units.

In addition to the near-term reinforcements described above, interim measures are being planned for the time when Bruce is operated with eight units before the proposed 500 kV double-circuit line between Bruce and Milton is available. The interim measures would include the installation of additional voltage control facilities at Nanticoke and when necessary, maximizing the available reactive power from Nanticoke units. These measures together with the new shunt capacitors and the deployment of the existing Bruce special protection system will further reduce potential constrained generation. In the longer-term, the proposed 500 kV line from Bruce to Milton would provide the required transmission capability to deliver the full benefits of the Bruce refurbishment project and the development of new renewable resources in southwestern Ontario.

The proposed 500 kV line from Bruce to Milton received the OEB approval for leave to construct on September 15, 2008. Hydro One has prepared a construction plan and related equipment outages are expected to start in the second quarter of 2009. These outages may impact the availability of existing transmission facilities and reduce some transmission interface limits.

The new manufacturing development and load growth in the Woodstock area will result in low voltage conditions on the local 115 kV transmission system during summer extreme weather conditions. In addition to a second capacitor bank installed at Woodstock transformer station (TS), Hydro One plans to add a second supply point by extending the 230 kV transmission lines

from Ingersoll to Woodstock area and install a new 230/115 kV transformer station in the second quarter of 2010. Beyond the Outlook period, Hydro One also plans to install an additional load supply transformer station on the 115 kV system. These plans will provide an increased level of supply reliability, and support further load growth in the area.

Hydro One is currently undertaking major upgrade work at Burlington TS which will resolve limitations in the station's ability to supply the Burlington 115 kV area loads. The 230/115 kV autotransformer replacement will be completed in the first quarter of 2009. The remaining work which includes the replacement of all 115 kV breakers and the replacement of limiting bus sections will be completed by the end of the Outlook period. Hydro One has also recently identified deratings associated with some of their load supply transformer stations which have resulted in load transfers to the Burlington and Detweiler 115 kV areas which is further aggravating the load supply reliability to these areas. Hydro One, the affected distributors and the IESO are actively working on mitigating both the short-term issues and implementing a long term solution to the problems.

Certain transmission outages on the IESO-controlled grid may also cause additional constrained operation of resources in southwestern Ontario due to a reduction in the transfer capability out of the Bruce zone on the Flow Away from Bruce Complex (FABC) transmission interface. For this Outlook period, multiple and sometimes concurrent outages associated with equipment in the Bruce, Niagara, Southwest and West zones are scheduled and will result in a reduction in the FABC limit of up to 760 MW. These reductions contribute to the bottled generation amounts shown for the Bruce and West zones in Tables A3 and A8.

6.4.3 Niagara Zone and the New York Interconnection

The status of the Niagara Reinforcement project has not changed since the last Outlook. The completion date for transmission reinforcement from Niagara region into the Hamilton-Burlington area continues to be delayed. The limitations affect the use of both the available Ontario generation and imports into the province, particularly during hot weather and high demand periods.

Once in service, the reinforcement project will increase the transfer capability of the transmission interface connecting the grid in the Niagara zone to the grid in the Hamilton area by about 800 MW. This enhancement will 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.

A forced outage associated with one of the Ontario to New York interconnection circuits at Niagara has been extended to beyond the Outlook period. This outage results in a reduction of the summer import and export capability of 440 MW and 680 MW respectively, and a reduction of the winter import and export capability of 510 MW and 560 MW respectively. The resource adequacy assessment results show that under the Extreme Weather, Planned Scenario the Reserve Above Requirement levels (Table A7) are negative for some periods in the Outlook period. If high imports levels are required to supply demand during these periods, the import capability of the remaining interconnections may approach their limits. The IESO is monitoring this situation closely and will take the necessary mitigating control actions should this constraint become limiting although at this time the outage is not expected to negatively impact the reliable supply of Ontario's electricity demands.

Short outages to Ontario to New York interconnection circuits at Niagara, for dam inspections in New York, took place earlier this year. It is expected that additional outages will be required, however, at the time of this report, New York's outage plans were not known. When scheduled, these outages will impact the import and export capability across this interface.

6.4.4 East Zone and Ottawa Zone

The new interconnection between Hawthorne transformer station (TS) in Ontario and Outaouais station in Québec is scheduled for service by middle of 2009. The new interconnection is designed for an ultimate capacity of 1,250 MW but for most of the Outlook period the import and export capability could be limited to less than the nominal capacity depending on level of load and generation in the Outaouais region. After the completion of transmission reinforcement work in Québec, anticipated for May 2010, the interconnection will be able to operate up to its nominal capacity. The interconnection will be accompanied by the installation of a new Special Protection System (SPS) at Hawthorne TS and modifications to the existing SPS at St. Lawrence TS. The SPSs will allow simultaneous imports from Québec and New York to be maximized. The existing functionality of the St. Lawrence SPS will be maintained.

The Reliability Must Run (RMR) contract between the IESO and Ontario Power Generation for Lennox GS has been renewed to cover the period October 2008 to September 2009. Lennox GS is presently needed to maintain local area reliability in the Ottawa zone and the area of Ontario that is located east of the FETT transmission interface. As part of the interconnection work at Hawthorne, the addition of voltage support facilities may reduce reliance on Lennox for local Ottawa zone need. Similarly, supply improvements from new generation additions and conservation in and around Toronto through 2010 are expected to reduce the need for Lennox to control flows on the FETT interface. Therefore, the reliance on Lennox for local area reliability is expected to decrease starting with the second half of 2009. Allowing for this RMR to overlap the planned in-service date of the new facilities will ensure against potential delays and provide an opportunity to confirm the reliable operation of these new facilities.

The current firm resource and demand forecast (the Firm Scenario) also provides insufficient justification for extending the Lennox RMR contract beyond September 2009. The IESO will continue to monitor any material changes in the load forecast and resource availability, and if necessary, reassess the need for another RMR contract. However, Lennox GS is also required for provincial resource adequacy, and must be retained or replaced. This resource adequacy requirement cannot be achieved through an RMR under the current Market Rules. The Integrated Power System Plan filed by the OPA with the OEB in August, 2007 assumes that Lennox remains in service and is categorized as a planned gas resource starting in 2011.

6.4.5 West Zone and the Michigan Interconnection

In the first quarter of 2009, extensive refurbishment work continues to be completed at the Lambton transformer station 230 kV switchyard to reliably allow simultaneous connection of the new Greenfield Energy Centre and St. Clair Energy Centre generating resources. The modifications are required to manage the expected increase in short circuit levels when these resources are in service while Lambton generating units continue to operate.

With the availability of Greenfield, St Clair and Lambton resources in the first quarter of the 2009, transmission constraints in this zone may restrict resources in southwestern Ontario and imports from Michigan. This is evident in the bottled generation amounts shown for the Bruce and West

zones in Tables A3 and A8. The frequency and magnitude of congestion could be aggravated further by transmission outages and weather conditions.

Phase angle regulators (PARs) are installed on the Ontario-Michigan interconnection at Lambton TS, representing two of the four interconnections with Michigan, but are not currently operational until completion of agreements between the IESO, the Midwest ISO, Hydro One and International Transmission Company. The expected in service date is not known at the time of this Outlook. The operation of the these PARs along with the PAR on the Ontario-Michigan interconnection near Windsor will control flows to a limited extent, and assist in the management of system congestion.

The capability to control flows on the Ontario-Michigan interconnection between Scott TS and Bunce Creek is unavailable. The PAR installed at Bunce Creek in Michigan has failed and is scheduled for replacement in 2010.

Multiple outages scheduled in the Outlook period will result in a reduction of the Buchanan Longwood Input (BLIP) limit by 500 MW. However, these reductions do not contribute to the bottled generation amounts shown for the Bruce and West zones in Tables A3 and A8.

6.4.6 Northeast and Northwest Zones

The transmission corridor east of Mississagi TS has been experiencing increased congestion due to the addition of the 200 MW Prince Park (wind) generation station and the alleviation of constrained Brookfield resources following the completion of the Great Lakes Power (GLP) 230 kV transmission reinforcement project between Wawa TS and Third Line TS. It is expected that congestion will increase even further when the recently contracted Algoma Energy cogeneration project is complete in mid 2009.

For the near–term, the IESO has recommended that the existing Mississagi TS and Algoma TS generation rejection schemes be enhanced as soon as possible to alleviate constrained generation west of Mississagi and reduce congestion over the transmission corridors. Hydro One is planning to implement the required modifications by the fourth quarter of 2009.

In the first half of 2009, extensive line work on 230 kV transmission circuits west of Mackenzie transformer station continues. This series of outages can reduce the Ontario-Manitoba interconnection transfer capacity by up to 250 MW, the Ontario-Minnesota interconnection transfer capability by up to 140 MW and the East-West transmission interface capability by up to 120 MW. The reduction of the East-West Transfer East (EWTE) limit because of these outages contributes to the increased bottled generation amounts shown in Tables A3 and A8 for the Northwest zone.

6.4.7 Ontario 25 Hz System

The gradual retirement of the Niagara 25 Hz system is well underway. As mentioned in previous Outlooks, the IESO advised the 25 Hz customers in 2005 that the 25 Hz supply would be retired in April 2009, and in January 2007 National Grid, a transmission entity in the United States, informed the IESO that it had retired the US portion of the Niagara 25 Hz system. These activities pave the way for the deregistration of the remaining 25 Hz transmission and generating resources at the Sir Adam Beck 1 generation station. The IESO has approved the deregistration requests for the 60/25 Hz frequency changer and the remaining 25 Hz generation units at Beck No.1 effective April 30, 2009.

In northeastern Ontario, the 25 Hz system will also be retired. Most of the associated facilities have been deregistered. It is expected that the remaining facilities will deregistered by the end of this Outlook period. There is no longer any 25 Hz load in this area.

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7.0 Conclusions

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

Resource Adequacy

- Under the Normal Weather Planned Scenario, forecast reserves within Ontario are sufficient to meet requirements for all weeks but two in the study period. Opportunities will exist for additional planned generator maintenance and exports in most of the weeks of the Outlook period. It is expected that generator owners will consider any future outages only when reserve levels are larger than the generator capacity being considered for outage.
- Under the Firm-Normal Weather Scenario, the reserves are forecast to be below requirements for only 12 of 78 weeks of the Outlook timeframe.
- Extreme weather during the peak periods may result in reliance on imports to supplement Ontario generation and potential for the IESO to reject planned outages and use emergency operating procedures. However, Ontario's reliance on imports for reliability and potential rejection of planned outages are less likely compared to previous Outlooks.
- Results of the resource adequacy assessment are summarized in the matrix below. The different shadings present the supply/demand situation under each resource-weather scenario combination.

	Normal Weather Scenario	Extreme Weather Scenario
Planned Scenario	- the reserves are higher than required for all weeks except for the last two weeks in June 2009 - opportunities for additional outages/exports exist in most of the weeks	- some planned outages are at risk - imports required during some peak periods - some risk of requiring emergency operating procedures
Firm Scenario	- there are 12 weeks when reserves are lower than required (planned outages at risk or imports potentially required) - opportunities for additional outages/exports exist in many other weeks	- many planned outages are at risk - imports required during some peak periods - higher risk of requiring emergency operating procedures

- For the Normal Weather Planned Scenario to exhibit positive supply margins in all weeks covered by this Outlook, all of the planned resource additions must meet their stated in service targets and the conservation targets set by the OPA must be achieved. Even if that does occur, Ontario may need to rely on imports from neighbouring jurisdictions to maintain reliability if extreme weather occurs or if equipment performance is below normal.
- A number of large generating units are scheduled to return to service from outage by second week in June prior to the summer of 2009. Meeting these planned outage schedules is critical

to maintaining adequate reserve levels over the peak season. Any delay will have a negative impact to the reliability of the system.

- Reserves are higher during the winter under the Normal Weather Planned Scenario allowing opportunities for additional generator outages in these periods. Air conditioning load growth, combined with minimal growth in heating load has led to the transition from winter peaking to summer peaking over the last ten years. This gap continues to grow. The development of new capabilities and resources to meet the higher summer peaks increases the capability to accommodate planned generator maintenance over the winter months.
- 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.
- Lennox GS is presently needed to maintain local area reliability in the Ottawa zone and the area of Ontario that is located east of the Flow East To Toronto (FETT) interface. The Reliability Must Run (RMR) contract has been extended another year to September 2009. As part of the Ontario- Québec interconnection work at Hawthorne, the addition of voltage support facilities may reduce reliance on Lennox for local Ottawa zone needs. Similarly, supply improvements from new generation and conservation in and around Toronto through 2010 are expected to reduce the need for Lennox to control flows on the FETT interface.

  However, Lennox GS is also critical to provincial resource adequacy, and must be retained or replaced. This resource adequacy requirement cannot be achieved through an RMR contract under the current Market Rules. The Integrated Power System Plan filed by the OPA with the OEB in August 2007 assumes that Lennox remains in service and is categorized as a planned gas resource starting in 2011.
- The implementation of emission reductions for coal-powered generation in the province will commence in 2009. By 2011, these limitations will reduce coal plant emissions to two-thirds below 2003 levels. This Outlook, the first one to incorporate the emission reductions demonstrates that the limitations are achievable over the next 18 month period.
- Over the 18 month period under study, the Northeast Power Coordinating Council resource adequacy criterion is expected to be met. As permitted by 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.

Transmission Adequacy

- The Ontario transmission system with the planned system enhancements and transmission outages is expected to be adequate to supply the demand under the extreme and normal weather conditions forecast for the 18 month period of this Outlook.
- In the Greater Toronto Area (GTA) with all 500/230 kV autotransformers, six Pickering units and all other local transmission elements and resources in service, the projected summer 2009 extreme weather loadings on the autotransformers are not expected to exceed their long term emergency capabilities following the forced outages of one autotransformer at Trafalgar, Claireville, Parkway or Cherrywood and up to two Pickering units. Loadings are also expected to be within applicable capabilities following the subsequent forced outage of one additional autotransformer at Trafalgar, Parkway or Cherrywood.

- The supply reliability to the GTA and west GTA under extreme weather conditions will be improved with the availability of Goreway Station and Halton Hills generating station, respectively.
- The supply reliability to central Toronto will also be improved during the period of this Outlook with the scheduled combined cycle operation of Portlands Energy Centre.
- A forced outage associated with one of the Ontario to New York interconnection circuits at Niagara that is expected to last beyond the Outlook period, results in a reduction of the import and export capability of up to 680 MW. The IESO is monitoring this situation closely and will take the necessary mitigating control actions should this constraint become limiting although at this time the outage is not expected to negatively impact the reliability of the grid.
- The transfer capability of FABC will be increased by various transmission reinforcements that are expected to be completed by the third quarter of 2009, which will be before the expected time when Bruce is operated with seven units. Beyond the Outlook period, further measures are being planned to increase the FABC transfer capability as additional Bruce area resources come into service.
- Several projects relating to load supply improvements will be placed in service during the timeframe of this Outlook to help relieve loadings of existing transformer stations and provide additional transformer capacity for future load growth. Additional transmission reinforcements required to also ensure load supply reliability are currently under construction or beginning construction, and are planned for service during or just beyond this Outlook period.
- The new Ontario-Québec interconnection is scheduled for service by the middle of 2009. Additional transmission reinforcements in Québec are scheduled to be in service in May 2010 which may allow transfers up to 1,250 MW.
- Transmission outages scheduled in this Outlook period in the Bruce, Niagara, Southwest and West zones will result in reductions of the FABC limit for periods of time. The resulting FABC reductions contribute to the amount of bottled generation expected to occur in the Bruce and West zones.

  Outages in the Northeast and Northwest zones will cause a reduction of the EWTE limit that contribute to the amount of bottled generation expected to occur in these zones.
- With the availability of Greenfield, St Clair and Lambton resources in the first quarter of the 2009, transmission constraints may limit the ability to utilize resources in southwestern Ontario and imports from Michigan. The frequency and magnitude of congestion could be further increased by transmission outages and weather conditions.
- Hydro One will enhance the existing Mississagi TS and Algoma TS generation rejection schemes by the later part of 2009 to alleviate constrained generation west of Mississagi and reduce congestion over the transmission corridors east of Mississagi.
- The deregistration of facilities and subsequent retirement of the Niagara and Northeast 25 Hz systems is expected to be completed respectively by April 2009 and by 2010.

- End of Section -

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Appendix A Resource Adequacy Assessment Details

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

Week Ending Day	Total Resources MW	Total Reductions in Resources MW	Demand Measures MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
04-Jan-09	33,045	4,551	378	28,872	24,982	32.2	7,036	14.4	3,146	3,890
11-Jan-09	33,484	5,056	378	28,806	27,123	19.8	4,757	12.8	3,074	1,683
18-Jan-09	33,484	5,427	378	28,435	27,466	16.6	4,056	12.7	3,087	969
25-Jan-09	33,484	5,452	378	28,410	27,206	18.0	4,324	13.0	3,120	1,204
01-Feb-09	33,484	5,886	378	27,976	26,780	17.5	4,165	12.5	2,969	1,196
08-Feb-09	34,061	7,868	378	26,571	26,659	11.5	2,734	11.8	2,822	-88
15-Feb-09	34,061	7,984	378	26,455	26,350	12.5	2,930	12.0	2,825	105
22-Feb-09	34,061	8,471	378	25,968	26,152	10.9	2,552	11.7	2,736	-184
01-Mar-09	34,061	8,287	378	26,152	25,600	14.0	3,215	11.6	2,663	552
08-Mar-09	34,061	8,923	378	25,516	25,371	13.7	3,068	13.0	2,923	145
15-Mar-09	34,061	9,432	378	25,007	24,684	14.0	3,069	12.5	2,746	323
22-Mar-09	34,061	9,861	378	24,578	24,283	13.9	2,994	12.5	2,699	295
29-Mar-09	34,061	9,900	378	24,539	23,449	17.4	3,632	12.2	2,542	1,090
05-Apr-09	34,959	10,033	378	25,304	23,495	22.4	4,626	13.6	2,817	1,809
12-Apr-09	34,959	10,083	378	25,254	22,477	26.8	5,338	12.9	2,561	2,777
19-Apr-09	34,959	10,018	378	25,319	22,475	27.5	5,461	13.2	2,617	2,844
26-Apr-09	34,959	12,772	378	22,565	21,854	16.3	3,159	12.6	2,448	711
03-May-09	34,959	12,722	378	22,615	22,042	16.4	3,184	13.4	2,611	573
10-May-09	34,959	11,718	378	23,619	22,545	18.3	3,661	13.0	2,587	1,074
17-May-09	34,959	12,452	378	22,885	23,258	12.8	2,592	14.6	2,965	-373
24-May-09	34,959	12,099	378	23,238	23,432	12.6	2,601	13.5	2,795	-194
31-May-09	34,959	9,479	378	25,858	23,987	23.5	4,913	14.5	3,042	1,871
07-Jun-09	34,959	9,373	378	25,964	24,462	21.0	4,509	14.0	3,007	1,502
14-Jun-09	34,959	8,874	378	26,463	27,073	11.5	2,730	14.1	3,340	-610
21-Jun-09	34,959	8,749	378	26,588	28,230	8.0	1,962	14.6	3,604	-1,642
28-Jun-09	34,959	8,903	378	26,434	27,888	9.3	2,239	15.3	3,693	-1,454
05-Jul-09	34,959	8,164	378	27,173	26,586	16.1	3,771	13.6	3,184	587
12-Jul-09	34,959	6,553	378	28,784	28,625	14.7	3,677	14.0	3,518	159
19-Jul-09	34,959	5,799	378	29,538	29,335	15.2	3,896	14.4	3,693	203
26-Jul-09	34,959	5,929	378	29,408	28,138	18.8	4,643	13.6	3,373	1,270
02-Aug-09	34,959	6,051	378	29,286	27,182	22.8	5,434	14.0	3,330	2,104
09-Aug-09	34,959	5,651	378	29,686	28,315	19.8	4,897	14.2	3,526	1,371
16-Aug-09	34,959	6,181	378	29,156	27,946	19.0	4,653	14.1	3,443	1,210
23-Aug-09	34,959	6,239	378	29,098	26,902	23.2	5,488	13.9	3,292	2,196
30-Aug-09	34,959	6,689	378	28,648	27,115	19.5	4,683	13.1	3,150	1,533
06-Sep-09	34,986	8,212	378	27,152	26,195	19.8	4,485	15.6	3,528	957
13-Sep-09	34,986	8,853	378	26,511	25,366	20.7	4,551	15.5	3,406	1,145
20-Sep-09	34,986	9,093	378	26,271	24,445	24.0	5,086	15.4	3,260	1,826
27-Sep-09	34,986	9,615	378	25,749	22,999	25.1	5,164	11.7	2,414	2,750

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	Demand Measures MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
04-Oct-09	34,986	9,192	378	26,172	22,333	32.8	6,462	13.3	2,623	3,839
11-Oct-09	34,986	8,561	378	26,803	22,478	35.1	6,956	13.3	2,631	4,325
18-Oct-09	34,986	8,926	378	26,438	22,718	31.2	6,293	12.8	2,573	3,720
25-Oct-09	34,986	9,198	378	26,166	23,058	27.9	5,704	12.7	2,596	3,108
01-Nov-09	34,986	9,730	378	25,634	24,220	17.9	3,890	11.4	2,476	1,414
08-Nov-09	34,986	9,176	378	26,188	23,928	21.7	4,665	11.2	2,405	2,260
15-Nov-09	34,986	8,692	378	26,672	24,539	21.5	4,715	11.8	2,582	2,133
22-Nov-09	34,986	8,944	378	26,420	25,080	17.4	3,915	11.4	2,575	1,340
29-Nov-09	34,986	8,539	378	26,825	25,163	19.1	4,296	11.7	2,634	1,662
06-Dec-09	34,986	8,292	378	27,072	26,280	15.2	3,567	11.8	2,775	792
13-Dec-09	34,986	7,630	378	27,734	26,352	17.9	4,212	12.0	2,830	1,382
20-Dec-09	34,986	7,109	378	28,255	26,274	20.7	4,851	12.3	2,870	1,981
27-Dec-09	34,986	6,677	378	28,687	25,720	25.7	5,859	12.7	2,892	2,967
03-Jan-10	34,986	6,238	378	29,126	25,125	31.6	6,994	13.5	2,993	4,001
10-Jan-10	34,986	5,555	378	29,809	26,899	25.0	5,954	12.8	3,044	2,910
17-Jan-10	34,986	5,504	378	29,860	27,138	24.0	5,776	12.7	3,054	2,722
24-Jan-10	34,986	5,520	378	29,844	27,506	22.2	5,425	12.6	3,087	2,338
31-Jan-10	34,986	5,486	378	29,878	27,247	23.8	5,750	12.9	3,119	2,631
07-Feb-10	34,986	8,312	378	27,052	26,776	12.9	3,098	11.8	2,822	276
14-Feb-10	34,986	8,360	378	27,004	26,475	14.2	3,354	12.0	2,825	529
21-Feb-10	34,986	8,782	378	26,582	26,078	13.4	3,148	11.3	2,644	504
28-Feb-10	34,986	8,867	378	26,497	25,772	14.9	3,443	11.8	2,718	725
07-Mar-10	34,975	10,096	378	25,257	25,565	9.7	2,225	11.0	2,533	-308
14-Mar-10	34,975	9,645	378	25,708	25,134	14.8	3,322	12.3	2,748	574
21-Mar-10	34,975	9,737	378	25,616	24,447	17.1	3,742	11.8	2,573	1,169
28-Mar-10	34,975	9,331	378	26,022	24,219	20.8	4,482	12.4	2,679	1,803
04-Apr-10	34,975	10,859	378	24,494	23,309	17.5	3,651	11.8	2,466	1,185
11-Apr-10	34,975	8,496	378	26,857	23,302	30.7	6,308	13.4	2,753	3,555
18-Apr-10	34,975	10,819	378	24,534	22,488	22.8	4,548	12.5	2,502	2,046
25-Apr-10	34,975	10,863	378	24,490	22,383	22.9	4,557	12.3	2,450	2,107
02-May-10	34,975	11,354	378	23,999	21,761	23.2	4,514	11.7	2,276	2,238
09-May-10	34,975	14,301	378	21,052	22,051	7.9	1,532	13.0	2,531	-999
16-May-10	34,975	14,241	378	21,112	22,622	4.9	982	12.4	2,492	-1,510
23-May-10	34,975	14,311	378	21,042	23,474	2.8	568	14.7	3,000	-2,432
30-May-10	34,975	9,193	378	26,160	23,457	25.7	5,341	12.7	2,638	2,703
06-Jun-10	34,975	9,186	378	26,167	25,206	19.2	4,216	14.8	3,255	961
13-Jun-10	34,975	8,806	378	26,547	25,398	18.6	4,155	13.4	3,006	1,149
20-Jun-10	34,975	7,635	378	27,718	27,179	15.7	3,768	13.5	3,229	539
27-Jun-10	34,975	7,239	378	28,114	28,419	13.0	3,236	14.2	3,541	-305

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

Week Ending Day	Total Resources MW	Total Reductions in Resources MW	Demand Measures MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
04-Jan-09	33,045	4,730	542	28,857	24,672	34.1	7,331	14.6	3,146	4,185
11-Jan-09	33,484	4,960	542	29,066	26,580	23.7	5,565	13.1	3,079	2,486
18-Jan-09	33,484	5,354	542	28,672	26,905	20.4	4,859	13.0	3,092	1,767
25-Jan-09	33,484	5,322	542	28,704	26,666	21.9	5,163	13.3	3,125	2,038
01-Feb-09	33,484	5,796	542	28,230	26,232	21.4	4,973	12.8	2,975	1,998
08-Feb-09	34,061	7,772	542	26,831	26,043	15.6	3,610	12.2	2,822	788
15-Feb-09	34,061	7,934	542	26,669	25,761	16.3	3,733	12.3	2,825	908
22-Feb-09	34,061	8,361	542	26,242	25,568	14.9	3,410	12.0	2,736	674
01-Mar-09	34,061	8,183	542	26,420	25,084	18.0	4,027	12.0	2,691	1,336
08-Mar-09	34,061	8,778	542	25,825	24,865	17.8	3,910	13.5	2,950	960
15-Mar-09	34,061	9,328	542	25,275	24,076	18.2	3,889	12.6	2,690	1,199
22-Mar-09	34,061	9,739	542	24,864	23,728	18.0	3,785	12.6	2,649	1,136
29-Mar-09	34,061	9,799	542	24,804	22,917	21.9	4,456	12.6	2,569	1,887
05-Apr-09	34,959	9,938	542	25,563	22,956	27.1	5,450	14.1	2,843	2,607
12-Apr-09	34,959	9,977	542	25,524	21,962	31.7	6,150	13.4	2,588	3,562
19-Apr-09	35,157	10,112	542	25,587	21,993	32.2	6,238	13.7	2,644	3,594
26-Apr-09	35,157	12,542	542	23,157	21,334	22.6	4,272	13.0	2,449	1,823
03-May-09	35,157	12,872	542	22,827	21,541	20.7	3,917	13.9	2,631	1,286
10-May-09	35,157	11,755	542	23,944	21,981	23.6	4,577	13.5	2,614	1,963
17-May-09	35,157	12,625	542	23,074	22,612	17.2	3,393	14.9	2,931	462
24-May-09	35,157	12,200	542	23,499	22,785	16.9	3,396	13.3	2,682	714
31-May-09	35,157	9,625	542	26,074	23,405	28.2	5,736	15.1	3,067	2,669
07-Jun-09	35,220	9,365	542	26,397	23,903	26.5	5,536	14.6	3,042	2,494
14-Jun-09	35,220	8,637	542	27,125	26,319	17.2	3,976	13.7	3,170	806
21-Jun-09	35,220	8,719	542	27,043	27,439	12.5	3,011	14.2	3,407	-396
28-Jun-09	35,220	8,948	542	26,814	27,057	13.9	3,261	14.9	3,504	-243
05-Jul-09	35,220	8,373	542	27,389	25,980	20.3	4,628	14.1	3,219	1,409
12-Jul-09	35,220	6,745	542	29,017	27,710	18.5	4,532	13.2	3,225	1,307
19-Jul-09	35,220	5,914	542	29,848	28,673	19.5	4,876	14.8	3,701	1,175
26-Jul-09	35,220	5,979	542	29,783	27,551	23.4	5,640	14.1	3,408	2,232
02-Aug-09	35,220	6,254	542	29,508	26,567	27.2	6,306	14.5	3,365	2,941
09-Aug-09	35,220	5,770	542	29,992	27,717	24.2	5,835	14.7	3,560	2,275
16-Aug-09	35,220	6,257	542	29,505	27,391	23.4	5,592	14.5	3,478	2,114
23-Aug-09	35,220	6,355	542	29,407	26,330	27.8	6,404	14.5	3,327	3,077
30-Aug-09	35,220	6,786	542	28,976	26,546	24.0	5,615	13.6	3,185	2,430
06-Sep-09	35,247	8,232	542	27,557	25,603	25.0	5,516	16.2	3,562	1,954
13-Sep-09	35,247	8,862	542	26,927	24,797	26.1	5,571	16.1	3,441	2,130
20-Sep-09	35,247	9,037	542	26,752	23,875	30.0	6,172	16.0	3,295	2,877
27-Sep-09	35,247	9,089	542	26,700	22,390	33.9	6,761	12.3	2,451	4,310

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	Demand Measures MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
04-Oct-09	35,351	9,232	542	26,661	21,936	38.4	7,397	13.9	2,672	4,725
11-Oct-09	35,351	8,651	542	27,242	21,962	41.3	7,960	13.9	2,680	5,280
18-Oct-09	35,351	8,996	542	26,897	22,240	37.1	7,279	13.4	2,622	4,657
25-Oct-09	35,351	9,296	542	26,597	22,623	33.1	6,619	13.2	2,645	3,974
01-Nov-09	35,351	9,812	542	26,081	23,724	23.0	4,871	11.9	2,514	2,357
08-Nov-09	35,351	9,265	542	26,628	23,384	27.2	5,698	11.7	2,454	3,244
15-Nov-09	35,351	8,833	542	27,060	23,854	27.5	5,838	12.4	2,632	3,206
22-Nov-09	35,351	9,005	542	26,888	24,452	23.1	5,044	11.9	2,608	2,436
29-Nov-09	35,351	8,599	542	27,294	24,483	25.2	5,494	12.3	2,683	2,811
06-Dec-09	35,351	8,417	542	27,476	25,512	20.8	4,739	12.2	2,775	1,964
13-Dec-09	35,351	7,734	542	28,159	25,659	23.4	5,330	12.4	2,830	2,500
20-Dec-09	35,351	7,236	542	28,657	25,639	26.1	5,937	12.9	2,919	3,018
27-Dec-09	35,351	6,764	542	29,129	25,081	31.6	6,990	13.3	2,942	4,048
03-Jan-10	35,351	6,404	542	29,489	24,559	37.1	7,972	14.1	3,042	4,930
10-Jan-10	35,351	5,818	542	30,075	25,280	35.6	7,888	13.9	3,093	4,795
17-Jan-10	35,351	5,757	542	30,136	25,322	35.6	7,917	14.0	3,103	4,814
24-Jan-10	35,351	5,764	542	30,129	25,682	33.6	7,583	13.9	3,136	4,447
31-Jan-10	35,351	5,776	542	30,117	25,271	36.3	8,014	14.3	3,168	4,846
07-Feb-10	35,351	8,495	542	27,398	25,151	22.7	5,069	12.6	2,822	2,247
14-Feb-10	35,351	8,725	542	27,168	24,641	24.5	5,352	13.0	2,825	2,527
21-Feb-10	35,351	9,067	542	26,826	24,181	24.6	5,289	12.3	2,644	2,645
28-Feb-10	35,351	9,182	542	26,711	24,181	24.5	5,248	12.7	2,718	2,530
07-Mar-10	35,340	10,361	542	25,521	23,501	20.9	4,403	11.3	2,383	2,020
14-Mar-10	35,340	9,882	542	26,000	23,398	26.1	5,377	13.5	2,775	2,602
21-Mar-10	35,340	9,954	542	25,928	22,750	28.7	5,778	12.9	2,600	3,178
28-Mar-10	35,340	9,550	542	26,332	22,514	32.9	6,524	13.7	2,706	3,818
04-Apr-10	35,340	11,067	542	24,815	21,764	28.6	5,517	12.8	2,466	3,051
11-Apr-10	36,722	10,166	542	27,098	22,080	41.0	7,877	14.9	2,859	5,018
18-Apr-10	36,722	12,542	542	24,722	21,215	32.9	6,116	14.0	2,609	3,507
25-Apr-10	36,722	12,558	542	24,706	21,310	31.8	5,954	13.6	2,558	3,396
02-May-10	36,958	13,015	542	24,485	20,644	34.2	6,239	13.1	2,398	3,841
09-May-10	36,958	14,861	542	22,639	20,821	23.2	4,259	13.3	2,441	1,818
16-May-10	36,958	14,814	542	22,686	21,016	20.5	3,866	11.7	2,196	1,670
23-May-10	36,958	14,720	542	22,780	21,993	18.6	3,569	14.5	2,782	787
30-May-10	36,958	10,794	542	26,706	22,442	35.7	7,019	14.0	2,755	4,264
06-Jun-10	36,958	10,669	542	26,831	24,050	29.7	6,143	16.3	3,362	2,781
13-Jun-10	36,958	10,249	542	27,251	24,206	29.2	6,160	14.8	3,115	3,045
20-Jun-10	36,958	9,429	542	28,071	26,032	23.7	5,377	14.7	3,338	2,039
27-Jun-10	36,958	9,040	542	28,460	26,976	21.6	5,060	15.3	3,576	1,484

Table A3 Zonal Bottled Generation for Normal Weather, Scenario

Week Ending Day	Firm Scenario			Planned Scenario		
	Bruce & West MW	Northeast MW	Northwest MW	Bruce & West MW	Northeast MW	Northwest MW
04-Jan-09	975	0	265	1,118	0	301
11-Jan-09	1,131	0	190	1,221	0	227
18-Jan-09	1,464	0	210	1,576	0	249
25-Jan-09	1,463	0	235	1,523	0	270
01-Feb-09	1,489	0	269	1,588	0	305
08-Feb-09	1,503	0	295	2,203	0	342
15-Feb-09	1,540	0	289	2,290	0	332
22-Feb-09	1,544	0	257	2,234	0	300
01-Mar-09	1,098	0	313	1,801	0	350
08-Mar-09	1,109	0	289	1,766	0	325
15-Mar-09	79	0	316	772	0	356
22-Mar-09	96	0	333	778	0	366
29-Mar-09	114	0	356	809	0	398
05-Apr-09	107	0	157	800	0	199
12-Apr-09	142	0	172	824	0	215
19-Apr-09	173	0	173	862	0	211
26-Apr-09	0	0	172	364	0	210
03-May-09	149	0	164	884	9	203
10-May-09	123	0	117	722	36	168
17-May-09	477	42	138	1,206	84	192
24-May-09	158	0	150	862	3	195
31-May-09	203	73	57	905	116	109
07-Jun-09	0	0	51	591	0	97
14-Jun-09	0	0	220	364	0	263
21-Jun-09	222	0	209	787	8	251
28-Jun-09	327	28	230	938	67	270
05-Jul-09	718	9	257	1,488	48	302
12-Jul-09	578	0	244	1,353	11	287
19-Jul-09	426	0	240	1,130	4	283
26-Jul-09	568	0	227	1,191	22	269
02-Aug-09	680	0	238	1,476	2	280
09-Aug-09	495	0	198	1,209	0	239
16-Aug-09	534	0	209	1,206	0	248
23-Aug-09	593	0	207	1,308	0	245
30-Aug-09	601	0	209	1,296	0	248
06-Sep-09	344	0	0	995	0	27
13-Sep-09	371	0	0	1,016	0	35
20-Sep-09	453	0	0	1,068	0	0
27-Sep-09	0	0	0	145	0	0

Note: The bottled generation values indicated in the table are capacity values calculated at the hour of weekly peak. In real time operation, the actual amount of bottled generation will depend on many conditions prevailing at the time, including the local generation levels, overall generation dispatch and the direction and levels of flows into and out of Ontario.

Zonal information is found on page 6 of the Ontario Transmission System document.

(Table A3 continued)

Week Ending Day	Firm Scenario			Planned Scenario		
	Bruce & West MW	Northeast MW	Northwest MW	Bruce & West MW	Northeast MW	Northwest MW
04-Oct-09	174	0	0	859	0	0
11-Oct-09	124	0	0	883	0	0
18-Oct-09	115	0	0	853	0	0
25-Oct-09	100	0	0	868	0	0
01-Nov-09	31	0	0	782	0	0
08-Nov-09	88	0	0	857	0	0
15-Nov-09	43	0	0	865	0	0
22-Nov-09	0	0	111	699	0	154
29-Nov-09	0	0	82	692	0	130
06-Dec-09	686	0	178	1,420	0	257
13-Dec-09	714	0	219	1,447	0	286
20-Dec-09	1,223	0	218	1,957	0	308
27-Dec-09	1,300	0	310	2,016	5	373
03-Jan-10	1,301	0	302	2,104	0	362
10-Jan-10	1,179	0	225	2,049	23	301
17-Jan-10	1,140	0	212	1,994	22	295
24-Jan-10	1,144	0	225	1,999	13	307
31-Jan-10	1,135	0	200	2,019	22	290
07-Feb-10	1,177	0	242	1,980	0	327
14-Feb-10	1,225	0	241	2,124	82	330
21-Feb-10	1,223	0	225	2,062	69	308
28-Feb-10	769	0	260	1,604	105	339
07-Mar-10	748	0	253	1,614	0	342
14-Mar-10	792	0	238	1,626	0	331
21-Mar-10	860	0	262	1,691	0	338
28-Mar-10	879	0	277	1,713	0	352
04-Apr-10	900	0	259	1,704	9	327
11-Apr-10	875	0	269	2,437	78	339
18-Apr-10	908	0	278	2,447	144	358
25-Apr-10	951	0	279	2,503	115	346
02-May-10	208	16	275	1,730	192	278
09-May-10	0	0	241	347	207	266
16-May-10	0	59	207	316	241	302
23-May-10	0	106	230	175	277	311
30-May-10	14	33	245	1,409	191	312
06-Jun-10	0	27	219	1,236	205	301
13-Jun-10	0	0	220	1,245	135	306
20-Jun-10	657	0	230	2,259	146	300
27-Jun-10	609	0	226	2,184	164	311

Table A4 Demand Forecast Range for Firm Scenario

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
04-Jan-09	21,836	22,869	04-Oct-09	19,710	23,892
11-Jan-09	24,049	25,008	11-Oct-09	19,847	20,442
18-Jan-09	24,379	25,391	18-Oct-09	20,145	20,997
25-Jan-09	24,086	25,221	25-Oct-09	20,462	21,197
01-Feb-09	23,811	24,905	01-Nov-09	21,744	22,313
08-Feb-09	23,837	24,902	08-Nov-09	21,523	22,175
15-Feb-09	23,525	24,520	15-Nov-09	21,957	22,905
22-Feb-09	23,416	24,285	22-Nov-09	22,505	23,420
01-Mar-09	22,937	24,126	29-Nov-09	22,529	23,885
08-Mar-09	22,448	23,919	06-Dec-09	23,505	24,593
15-Mar-09	21,938	23,245	13-Dec-09	23,522	24,597
22-Mar-09	21,584	22,720	20-Dec-09	23,404	24,388
29-Mar-09	20,907	22,126	27-Dec-09	22,828	23,692
05-Apr-09	20,678	22,295	03-Jan-10	22,132	23,273
12-Apr-09	19,916	21,005	10-Jan-10	23,855	24,758
19-Apr-09	19,858	22,144	17-Jan-10	24,084	25,178
26-Apr-09	19,406	22,137	24-Jan-10	24,419	25,431
03-May-09	19,431	21,874	31-Jan-10	24,128	25,264
10-May-09	19,958	22,430	07-Feb-10	23,954	25,018
17-May-09	20,293	21,958	14-Feb-10	23,650	24,645
24-May-09	20,637	22,695	21-Feb-10	23,434	24,397
31-May-09	20,945	23,698	28-Feb-10	23,054	24,243
07-Jun-09	21,455	24,455	07-Mar-10	23,032	23,973
14-Jun-09	23,733	25,853	14-Mar-10	22,386	23,876
21-Jun-09	24,626	26,891	21-Mar-10	21,874	23,201
28-Jun-09	24,195	26,587	28-Mar-10	21,540	22,656
05-Jul-09	23,402	25,281	04-Apr-10	20,843	22,083
12-Jul-09	25,107	26,817	11-Apr-10	20,549	21,795
19-Jul-09	25,642	27,708	18-Apr-10	19,986	21,079
26-Jul-09	24,765	26,655	25-Apr-10	19,933	22,291
02-Aug-09	23,852	25,476	02-May-10	19,485	22,286
09-Aug-09	24,789	27,600	09-May-10	19,520	22,036
16-Aug-09	24,503	26,829	16-May-10	20,130	22,588
23-Aug-09	23,610	26,074	23-May-10	20,474	22,141
30-Aug-09	23,965	26,128	30-May-10	20,819	22,876
06-Sep-09	22,667	25,972	06-Jun-10	21,951	25,690
13-Sep-09	21,960	25,714	13-Jun-10	22,392	24,881
20-Sep-09	21,185	25,026	20-Jun-10	23,950	26,070
27-Sep-09	20,585	23,538	27-Jun-10	24,878	27,143

Table A5 Demand Forecast Range for Planned Scenario

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
04-Jan-09	21,526	22,559	04-Oct-09	19,264	23,446
11-Jan-09	23,501	24,459	11-Oct-09	19,282	19,877
18-Jan-09	23,813	24,825	18-Oct-09	19,618	20,470
25-Jan-09	23,541	24,677	25-Oct-09	19,978	20,713
01-Feb-09	23,257	24,350	01-Nov-09	21,210	21,779
08-Feb-09	23,221	24,285	08-Nov-09	20,930	21,582
15-Feb-09	22,936	23,931	15-Nov-09	21,222	22,170
22-Feb-09	22,832	23,701	22-Nov-09	21,844	22,759
01-Mar-09	22,393	23,582	29-Nov-09	21,800	23,156
08-Mar-09	21,915	23,386	06-Dec-09	22,737	23,824
15-Mar-09	21,386	22,692	13-Dec-09	22,829	23,904
22-Mar-09	21,079	22,216	20-Dec-09	22,720	23,703
29-Mar-09	20,348	21,567	27-Dec-09	22,139	23,002
05-Apr-09	20,113	21,730	03-Jan-10	21,517	22,658
12-Apr-09	19,374	20,464	10-Jan-10	22,187	23,091
19-Apr-09	19,349	21,634	17-Jan-10	22,219	23,313
26-Apr-09	18,885	21,616	24-Jan-10	22,546	23,557
03-May-09	18,910	21,353	31-Jan-10	22,103	23,239
10-May-09	19,367	21,839	07-Feb-10	22,329	23,393
17-May-09	19,681	21,345	14-Feb-10	21,816	22,811
24-May-09	20,103	22,160	21-Feb-10	21,537	22,501
31-May-09	20,338	23,092	28-Feb-10	21,463	22,652
07-Jun-09	20,861	23,861	07-Mar-10	21,118	22,059
14-Jun-09	23,149	25,269	14-Mar-10	20,623	22,113
21-Jun-09	24,032	26,297	21-Mar-10	20,150	21,477
28-Jun-09	23,553	25,945	28-Mar-10	19,808	20,923
05-Jul-09	22,761	24,641	04-Apr-10	19,298	20,538
12-Jul-09	24,485	26,195	11-Apr-10	19,221	20,467
19-Jul-09	24,972	27,038	18-Apr-10	18,606	19,699
26-Jul-09	24,143	26,034	25-Apr-10	18,752	21,110
02-Aug-09	23,202	24,826	02-May-10	18,246	21,047
09-Aug-09	24,157	26,968	09-May-10	18,380	20,896
16-Aug-09	23,913	26,240	16-May-10	18,820	21,277
23-Aug-09	23,003	25,468	23-May-10	19,211	20,878
30-Aug-09	23,361	25,524	30-May-10	19,687	21,744
06-Sep-09	22,041	25,345	06-Jun-10	20,688	24,426
13-Sep-09	21,356	25,110	13-Jun-10	21,091	23,580
20-Sep-09	20,580	24,421	20-Jun-10	22,694	24,814
27-Sep-09	19,939	22,892	27-Jun-10	23,400	25,665

Table A6 Assessment of Resource Adequacy: Extreme Weather, Firm Scenario

Week Ending Day	Total Resources MW	Total Reductions in Resources MW	Demand Measures MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
04-Jan-09	33,045	4,423	378	29,000	25,903	26.8	6,131	13.3	3,034	3,097
11-Jan-09	33,484	5,006	378	28,856	27,934	15.4	3,848	11.7	2,926	922
18-Jan-09	33,484	5,283	378	28,579	28,323	12.6	3,188	11.6	2,932	256
25-Jan-09	33,484	5,315	378	28,547	28,149	13.2	3,326	11.6	2,928	398
01-Feb-09	33,484	5,776	378	28,086	27,745	12.8	3,181	11.4	2,840	341
08-Feb-09	34,061	7,826	378	26,613	27,675	6.9	1,711	11.1	2,773	-1,062
15-Feb-09	34,061	7,954	378	26,485	27,212	8.0	1,965	11.0	2,692	-727
22-Feb-09	34,061	8,469	378	25,970	26,988	6.9	1,685	11.1	2,703	-1,018
01-Mar-09	34,061	8,179	378	26,260	26,872	8.9	2,134	11.4	2,746	-612
08-Mar-09	34,061	8,780	378	25,659	26,668	7.3	1,740	11.5	2,749	-1,009
15-Mar-09	34,061	9,331	378	25,108	26,028	8.0	1,863	12.0	2,783	-920
22-Mar-09	34,061	9,762	378	24,677	25,377	8.6	1,957	11.7	2,657	-700
29-Mar-09	34,061	9,795	378	24,644	24,645	11.4	2,518	11.4	2,519	-1
05-Apr-09	34,959	9,940	378	25,397	24,782	13.9	3,102	11.2	2,487	615
12-Apr-09	34,959	9,922	378	25,415	23,354	21.0	4,410	11.2	2,349	2,061
19-Apr-09	34,959	9,805	378	25,532	24,680	15.3	3,388	11.5	2,536	852
26-Apr-09	34,959	12,706	378	22,631	25,038	2.2	494	13.1	2,901	-2,407
03-May-09	34,959	12,523	378	22,814	24,783	4.3	940	13.3	2,909	-1,969
10-May-09	34,959	11,624	378	23,713	25,450	5.7	1,283	13.5	3,020	-1,737
17-May-09	34,959	12,222	378	23,115	24,758	5.3	1,157	12.8	2,800	-1,643
24-May-09	34,959	11,942	378	23,395	25,658	3.1	700	13.1	2,963	-2,263
31-May-09	34,959	9,266	378	26,071	26,519	10.0	2,373	11.9	2,821	-448
07-Jun-09	34,959	9,392	378	25,945	27,397	6.1	1,490	12.0	2,942	-1,452
14-Jun-09	34,959	8,878	378	26,459	29,035	2.3	606	12.3	3,182	-2,576
21-Jun-09	34,959	8,658	378	26,679	30,181	-0.8	-212	12.2	3,290	-3,502
28-Jun-09	34,959	8,762	378	26,575	29,804	-0.1	-12	12.1	3,217	-3,229
05-Jul-09	34,959	7,939	378	27,398	28,286	8.4	2,117	11.9	3,005	-888
12-Jul-09	34,959	6,324	378	29,013	30,139	8.2	2,196	12.4	3,322	-1,126
19-Jul-09	34,959	5,615	378	29,722	31,077	7.3	2,014	12.2	3,369	-1,355
26-Jul-09	34,959	5,715	378	29,622	29,807	11.1	2,967	11.8	3,152	-185
02-Aug-09	34,959	5,711	378	29,626	28,415	16.3	4,150	11.5	2,939	1,211
09-Aug-09	34,959	5,353	378	29,984	31,007	8.6	2,384	12.3	3,407	-1,023
16-Aug-09	34,959	5,873	378	29,464	30,104	9.8	2,635	12.2	3,275	-640
23-Aug-09	34,959	5,973	378	29,364	29,192	12.6	3,290	12.0	3,118	172
30-Aug-09	34,959	6,437	378	28,900	29,231	10.6	2,772	11.9	3,103	-331
06-Sep-09	34,986	8,077	378	27,287	29,072	5.1	1,315	11.9	3,100	-1,785
13-Sep-09	34,986	8,711	378	26,653	28,792	3.7	939	12.0	3,078	-2,139
20-Sep-09	34,986	8,942	378	26,422	28,010	5.6	1,396	11.9	2,984	-1,588
27-Sep-09	34,986	9,615	378	25,749	26,204	9.4	2,211	11.3	2,666	-455

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 A6 continued)

Week Ending Day	Total Resources MW	Total Reductions in Resources MW	Demand Measures MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
04-Oct-09	34,986	9,017	378	26,347	26,732	10.3	2,455	11.9	2,840	-385
11-Oct-09	34,986	8,495	378	26,869	22,996	31.4	6,427	12.5	2,554	3,873
18-Oct-09	34,986	8,862	378	26,502	23,489	26.2	5,505	11.9	2,492	3,013
25-Oct-09	34,986	9,120	378	26,244	23,582	23.8	5,047	11.3	2,385	2,662
01-Nov-09	34,986	9,699	378	25,665	24,766	15.0	3,352	11.0	2,453	899
08-Nov-09	34,986	9,088	378	26,276	24,511	18.5	4,101	10.5	2,336	1,765
15-Nov-09	34,986	8,648	378	26,716	25,403	16.6	3,811	10.9	2,498	1,313
22-Nov-09	34,986	8,922	378	26,442	26,008	12.9	3,022	11.1	2,588	434
29-Nov-09	34,986	8,503	378	26,861	26,569	12.5	2,976	11.2	2,684	292
06-Dec-09	34,986	8,203	378	27,161	27,240	10.4	2,568	10.8	2,647	-79
13-Dec-09	34,986	7,538	378	27,826	27,181	13.1	3,229	10.5	2,584	645
20-Dec-09	34,986	6,945	378	28,419	27,127	16.5	4,031	11.2	2,739	1,292
27-Dec-09	34,986	6,528	378	28,836	26,484	21.7	5,144	11.8	2,792	2,352
03-Jan-10	34,986	6,087	378	29,277	26,127	25.8	6,004	12.3	2,854	3,150
10-Jan-10	34,986	5,469	378	29,895	27,683	20.8	5,137	11.8	2,925	2,212
17-Jan-10	34,986	5,399	378	29,965	28,103	19.0	4,787	11.6	2,925	1,862
24-Jan-10	34,986	5,410	378	29,954	28,356	17.8	4,523	11.5	2,925	1,598
31-Jan-10	34,986	5,399	378	29,965	28,189	18.6	4,701	11.6	2,925	1,776
07-Feb-10	34,986	8,276	378	27,088	27,812	8.3	2,070	11.2	2,794	-724
14-Feb-10	34,986	8,301	378	27,063	27,362	9.8	2,418	11.0	2,717	-299
21-Feb-10	34,986	8,708	378	26,656	27,052	9.3	2,259	10.9	2,655	-396
28-Feb-10	34,986	8,757	378	26,607	26,813	9.8	2,364	10.6	2,570	-206
07-Mar-10	34,975	9,959	378	25,394	26,559	5.9	1,421	10.8	2,586	-1,165
14-Mar-10	34,975	9,488	378	25,865	26,446	8.3	1,989	10.8	2,570	-581
21-Mar-10	34,975	9,610	378	25,743	25,629	11.0	2,542	10.5	2,428	114
28-Mar-10	34,975	9,222	378	26,131	25,069	15.3	3,475	10.7	2,413	1,062
04-Apr-10	34,975	10,763	378	24,590	24,246	11.4	2,507	9.8	2,163	344
11-Apr-10	34,975	8,425	378	26,928	24,326	23.6	5,133	11.6	2,531	2,602
18-Apr-10	34,975	10,671	378	24,682	23,358	17.1	3,603	10.8	2,279	1,324
25-Apr-10	34,975	10,516	378	24,837	24,679	11.4	2,546	10.7	2,388	158
02-May-10	34,975	11,133	378	24,220	24,782	8.7	1,934	11.2	2,496	-562
09-May-10	34,975	14,316	378	21,037	24,869	-4.5	-999	12.9	2,833	-3,832
16-May-10	34,975	14,231	378	21,122	25,537	-6.5	-1,466	13.1	2,949	-4,415
23-May-10	34,975	14,238	378	21,115	25,001	-4.6	-1,026	12.9	2,860	-3,886
30-May-10	34,975	9,239	378	26,114	25,354	14.2	3,238	10.8	2,478	760
06-Jun-10	34,975	9,149	378	26,204	28,683	2.0	514	11.7	2,993	-2,479
13-Jun-10	34,975	8,820	378	26,533	27,700	6.6	1,652	11.3	2,819	-1,167
20-Jun-10	34,975	7,341	378	28,012	29,076	7.5	1,942	11.5	3,006	-1,064
27-Jun-10	34,975	6,927	378	28,426	30,344	4.7	1,283	11.8	3,201	-1,918

Table A7 Assessment of Resource Adequacy: Extreme Weather, Planned Scenario

Week Ending Day	Total Resources MW	Total Reductions in Resources MW	Demand Measures MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
04-Jan-09	33,045	4,573	542	29,014	25,593	28.6	6,455	13.5	3,034	3,421
11-Jan-09	33,484	4,945	542	29,081	27,390	18.9	4,622	12.0	2,931	1,691
18-Jan-09	33,484	5,205	542	28,821	27,758	16.1	3,996	11.8	2,933	1,063
25-Jan-09	33,484	5,201	542	28,825	27,610	16.8	4,148	11.9	2,933	1,215
01-Feb-09	33,484	5,639	542	28,387	27,195	16.6	4,037	11.7	2,845	1,192
08-Feb-09	34,061	7,750	542	26,853	26,888	10.6	2,568	10.7	2,603	-35
15-Feb-09	34,061	7,887	542	26,716	26,519	11.6	2,785	10.8	2,588	197
22-Feb-09	34,061	8,395	542	26,208	26,255	10.6	2,507	10.8	2,554	-47
01-Mar-09	34,061	8,043	542	26,560	26,171	12.6	2,978	11.0	2,589	389
08-Mar-09	34,061	8,622	542	25,981	25,919	11.1	2,595	10.8	2,533	62
15-Mar-09	34,061	9,187	542	25,416	25,231	12.0	2,724	11.2	2,539	185
22-Mar-09	34,061	9,634	542	24,969	24,650	12.4	2,753	11.0	2,434	319
29-Mar-09	34,061	9,698	542	24,905	23,910	15.5	3,338	10.9	2,343	995
05-Apr-09	34,959	9,822	542	25,679	24,106	18.2	3,949	10.9	2,376	1,573
12-Apr-09	34,959	9,928	542	25,573	22,840	25.0	5,109	11.6	2,376	2,733
19-Apr-09	35,157	9,823	542	25,876	24,116	19.6	4,242	11.5	2,482	1,760
26-Apr-09	35,157	12,232	542	23,467	24,303	8.6	1,851	12.4	2,687	-836
03-May-09	35,157	12,540	542	23,159	24,003	8.5	1,806	12.4	2,650	-844
10-May-09	35,157	11,423	542	24,276	24,629	11.2	2,437	12.8	2,790	-353
17-May-09	35,157	12,335	542	23,364	23,905	9.5	2,019	12.0	2,560	-541
24-May-09	35,157	12,073	542	23,626	24,900	6.6	1,466	12.4	2,740	-1,274
31-May-09	35,157	9,319	542	26,380	25,645	14.2	3,288	11.1	2,553	735
07-Jun-09	35,220	9,142	542	26,620	26,534	11.6	2,759	11.2	2,673	86
14-Jun-09	35,220	8,496	542	27,266	28,222	7.9	1,997	11.7	2,953	-956
21-Jun-09	35,220	8,414	542	27,348	29,356	4.0	1,051	11.6	3,059	-2,008
28-Jun-09	35,220	8,533	542	27,229	28,944	5.0	1,284	11.6	2,999	-1,715
05-Jul-09	35,220	8,101	542	27,661	27,397	12.3	3,020	11.2	2,756	264
12-Jul-09	35,220	6,515	542	29,247	29,273	11.7	3,052	11.8	3,078	-26
19-Jul-09	35,220	5,678	542	30,084	30,170	11.3	3,046	11.6	3,132	-86
26-Jul-09	35,220	5,819	542	29,943	29,003	15.0	3,909	11.4	2,969	940
02-Aug-09	35,220	5,909	542	29,853	27,795	20.3	5,027	12.0	2,969	2,058
09-Aug-09	35,220	5,425	542	30,337	30,136	12.5	3,369	11.8	3,168	201
16-Aug-09	35,220	5,906	542	29,856	29,267	13.8	3,616	11.5	3,027	589
23-Aug-09	35,220	6,087	542	29,675	28,453	16.5	4,207	11.7	2,985	1,222
30-Aug-09	35,220	6,519	542	29,243	28,422	14.6	3,719	11.4	2,898	821
06-Sep-09	35,247	7,950	542	27,839	28,211	9.8	2,494	11.3	2,866	-372
13-Sep-09	35,247	8,587	542	27,202	27,969	8.3	2,092	11.4	2,859	-767
20-Sep-09	35,247	8,870	542	26,919	27,137	10.2	2,498	11.1	2,716	-218
27-Sep-09	35,247	8,944	542	26,845	25,297	17.3	3,953	10.5	2,405	1,548

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 A7 continued)

Week Ending Day	Total Resources MW	Total Reductions in Resources MW	Demand Measures MW	Available Resources MW	Required Resources MW	Available Reserve %	Available Reserve MW	Required Reserve %	Required Reserve MW	Reserve Above Requirement MW
04-Oct-09	35,351	8,826	542	27,067	26,042	15.4	3,621	11.1	2,596	1,025
11-Oct-09	35,351	8,573	542	27,320	22,480	37.5	7,443	13.1	2,603	4,840
18-Oct-09	35,351	8,940	542	26,953	23,008	31.7	6,483	12.4	2,538	3,945
25-Oct-09	35,351	9,217	542	26,676	23,147	28.8	5,963	11.8	2,434	3,529
01-Nov-09	35,351	9,728	542	26,165	24,158	20.1	4,386	10.9	2,379	2,007
08-Nov-09	35,351	9,140	542	26,753	23,967	24.0	5,171	11.1	2,385	2,786
15-Nov-09	35,351	8,701	542	27,192	24,660	22.7	5,022	11.2	2,490	2,532
22-Nov-09	35,351	8,913	542	26,980	25,195	18.6	4,221	10.7	2,436	1,785
29-Nov-09	35,351	8,508	542	27,385	25,660	18.3	4,229	10.8	2,504	1,725
06-Dec-09	35,351	8,304	542	27,589	26,318	15.8	3,765	10.5	2,494	1,271
13-Dec-09	35,351	7,597	542	28,296	26,467	18.4	4,392	10.7	2,563	1,829
20-Dec-09	35,351	7,099	542	28,794	26,494	21.5	5,091	11.8	2,791	2,300
27-Dec-09	35,351	6,575	542	29,318	25,844	27.5	6,316	12.4	2,842	3,474
03-Jan-10	35,351	6,261	542	29,632	25,561	30.8	6,974	12.8	2,903	4,071
10-Jan-10	35,351	5,707	542	30,186	26,064	30.7	7,095	12.9	2,973	4,122
17-Jan-10	35,351	5,620	542	30,273	26,286	29.9	6,960	12.8	2,973	3,987
24-Jan-10	35,351	5,656	542	30,237	26,530	28.4	6,680	12.6	2,973	3,707
31-Jan-10	35,351	5,631	542	30,262	26,212	30.2	7,023	12.8	2,973	4,050
07-Feb-10	35,351	8,488	542	27,405	26,034	17.2	4,012	11.3	2,641	1,371
14-Feb-10	35,351	8,576	542	27,317	25,452	19.8	4,506	11.6	2,641	1,865
21-Feb-10	35,351	8,978	542	26,915	25,057	19.6	4,414	11.4	2,556	1,858
28-Feb-10	35,351	8,936	542	26,957	25,064	19.0	4,305	10.7	2,412	1,893
07-Mar-10	35,340	10,196	542	25,686	24,290	16.4	3,627	10.1	2,231	1,396
14-Mar-10	35,340	9,713	542	26,169	24,444	18.3	4,056	10.5	2,331	1,725
21-Mar-10	35,340	9,809	542	26,073	23,808	21.4	4,596	10.9	2,331	2,265
28-Mar-10	35,340	9,436	542	26,446	23,364	26.4	5,523	11.7	2,441	3,082
04-Apr-10	35,340	10,951	542	24,931	22,662	21.4	4,393	10.3	2,124	2,269
11-Apr-10	36,722	10,012	542	27,252	23,109	33.2	6,785	12.9	2,642	4,143
18-Apr-10	36,722	12,349	542	24,915	22,091	26.5	5,216	12.1	2,392	2,824
25-Apr-10	36,722	12,121	542	25,143	23,502	19.1	4,033	11.3	2,392	1,641
02-May-10	36,958	12,641	542	24,859	23,326	18.1	3,812	10.8	2,279	1,533
09-May-10	36,958	14,604	542	22,896	23,258	9.6	2,000	11.3	2,362	-362
16-May-10	36,958	14,556	542	22,944	23,733	7.8	1,667	11.5	2,456	-789
23-May-10	36,958	14,487	542	23,013	23,240	10.2	2,135	11.3	2,362	-227
30-May-10	36,958	10,711	542	26,789	24,243	23.2	5,045	11.5	2,499	2,546
06-Jun-10	36,958	10,137	542	27,363	26,920	12.0	2,937	10.2	2,494	443
13-Jun-10	36,958	9,848	542	27,652	26,053	17.3	4,072	10.5	2,473	1,599
20-Jun-10	36,958	9,103	542	28,397	27,551	14.4	3,583	11.0	2,737	846
27-Jun-10	36,958	8,718	542	28,782	28,448	12.1	3,117	10.8	2,783	334

Table A8 Zonal Bottled Generation for Extreme Weather, Scenario

Week Ending Day	Firm Scenario			Planned Scenario		
	Bruce & West MW	Northeast MW	Northwest MW	Bruce & West MW	Northeast MW	Northwest MW
04-Jan-09	923	0	189	1,036	0	225
11-Jan-09	1,088	0	182	1,214	0	220
18-Jan-09	1,371	0	158	1,478	0	198
25-Jan-09	1,363	0	198	1,438	0	234
01-Feb-09	1,413	0	235	1,465	0	271
08-Feb-09	1,481	0	276	2,201	0	323
15-Feb-09	1,504	0	295	2,238	0	338
22-Feb-09	1,494	0	304	2,220	0	347
01-Mar-09	1,026	0	278	1,696	0	314
08-Mar-09	1,027	0	228	1,670	0	264
15-Mar-09	0	0	294	654	0	333
22-Mar-09	9	0	321	685	0	354
29-Mar-09	33	0	333	731	0	375
05-Apr-09	42	0	129	713	0	170
12-Apr-09	0	0	153	793	0	195
19-Apr-09	0	0	134	612	0	172
26-Apr-09	0	0	106	102	18	145
03-May-09	0	0	115	606	4	154
10-May-09	25	0	121	407	15	172
17-May-09	316	0	112	984	41	165
24-May-09	0	0	152	701	36	196
31-May-09	0	68	53	609	110	104
07-Jun-09	0	0	71	349	0	116
14-Jun-09	0	0	225	206	13	267
21-Jun-09	153	0	188	508	2	230
28-Jun-09	220	0	224	589	7	264
05-Jul-09	499	0	261	1,256	4	305
12-Jul-09	364	0	230	1,149	0	272
19-Jul-09	253	0	229	905	3	273
26-Jul-09	357	0	225	1,057	0	267
02-Aug-09	318	0	260	1,111	0	302
09-Aug-09	179	0	215	847	0	256
16-Aug-09	232	0	202	863	0	242
23-Aug-09	308	0	227	1,020	0	265
30-Aug-09	335	0	223	1,014	0	262
06-Sep-09	209	0	0	739	0	0
13-Sep-09	229	0	0	769	0	7
20-Sep-09	302	0	0	901	0	0
27-Sep-09	0	0	0	0	0	0

Note: The bottled generation values indicated in the table are capacity values calculated at the hour of weekly peak. In real time operation, the actual amount of bottled generation will depend on many conditions prevailing at the time, including the local generation levels, overall generation dispatch and the direction and levels of flows into and out of Ontario.

Zonal information is found on page 6 of the Ontario Transmission System document.

(Table A8 continued)

Week Ending Day	Firm Scenario			Planned Scenario		
	Bruce & West MW	Northeast MW	Northwest MW	Bruce & West MW	Northeast MW	Northwest MW
04-Oct-09	0	0	0	452	0	0
11-Oct-09	59	0	0	806	0	0
18-Oct-09	50	0	0	797	0	0
25-Oct-09	23	0	0	788	0	0
01-Nov-09	0	0	0	698	0	0
08-Nov-09	0	0	0	732	0	0
15-Nov-09	0	0	0	733	0	0
22-Nov-09	0	0	90	628	0	132
29-Nov-09	0	0	46	637	0	93
06-Dec-09	605	0	170	1,314	0	249
13-Dec-09	637	0	204	1,325	0	272
20-Dec-09	1,104	0	173	1,866	0	263
27-Dec-09	1,177	0	284	1,853	6	347
03-Jan-10	1,229	0	223	2,041	0	282
10-Jan-10	1,097	0	221	1,964	0	297
17-Jan-10	1,073	0	174	1,917	0	257
24-Jan-10	1,077	0	182	1,946	0	264
31-Jan-10	1,083	0	166	1,930	0	255
07-Feb-10	1,152	0	230	1,985	0	315
14-Feb-10	1,164	0	243	2,056	0	332
21-Feb-10	1,150	0	225	2,009	32	308
28-Feb-10	694	0	224	1,499	0	304
07-Mar-10	678	0	185	1,518	0	274
14-Mar-10	704	0	168	1,526	0	262
21-Mar-10	751	0	244	1,565	0	319
28-Mar-10	784	0	263	1,613	0	338
04-Apr-10	827	0	236	1,618	3	304
11-Apr-10	825	0	248	2,381	0	318
18-Apr-10	780	0	258	2,407	10	338
25-Apr-10	643	0	240	2,170	50	308
02-May-10	0	61	217	1,370	237	219
09-May-10	0	57	198	69	272	223
16-May-10	0	42	214	67	224	309
23-May-10	0	61	202	16	232	283
30-May-10	0	78	260	1,265	236	327
06-Jun-10	0	0	209	851	70	291
13-Jun-10	0	0	234	844	119	321
20-Jun-10	365	0	228	1,954	127	298
27-Jun-10	324	0	199	1,918	134	285

Table A9 Energy Production Capability Forecast

Month	Firm Scenario Forecast Energy Production Capability (GWh)	Planned Scenario Forecast Energy Production Capability (GWh)
Jan 2009	18,064	18,064
Feb 2009	16,192	16,192
Mar 2009	16,284	16,284
Apr 2009	15,972	15,972
May 2009	17,378	17,422
Jun 2009	17,312	17,393
Jul 2009	18,470	18,554
Aug 2009	18,168	18,253
Sep 2009	16,182	16,263
Oct 2009	16,275	16,426
Nov 2009	16,601	16,747
Dec 2009	18,529	18,680
Jan 2010	18,772	18,923
Feb 2010	16,269	16,405
Mar 2010	16,974	17,125
Apr 2010	17,166	18,204
May 2010	18,050	19,272
Jun 2010	17,110	18,293

- End of Section -

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Appendix B Transmission Projects

Table B Transmission Projects

Zone	CAA-ID#	Transmitter	Description	Proposed I/S Date
East	2007-EX333	Hydro One Networks Inc.	Whitby TS: new shunt capacitor at T3/T4 DESN station	2008-Q4
	2003-EX176	Hydro One Networks Inc.	Kingston-Gardiner TS: new T3/T4 DESN station	2009-Q1
Essa	2006-211	Hydro One Networks Inc.	Holland TS: new DESN station	2009-Q2
	2005-190	Hydro One Networks Inc.	Stayner TS: modifications and new 230 kV line	2009-Q3
Niagara	2002-085	Hydro One Networks Inc.	Queenston Flow West: new 230 kV circuits Q26M & Q35M (Allanburg x Middleport)	To be determined
	2007-EX379	Hydro One Networks Inc.	Retirement of Q5G (25 Hz circuit)	2008-Q4
	N/A	Hydro One Networks Inc.	Reconnect of Beck G7 to 60 Hz	2008-Q4
	N/A	Hydro One Networks Inc.	Thermal upgrade of 115 kV circuit Q4N	2009-Q2
	N/A	Hydro One Networks Inc.	Retirement of 25 Hz system	2009-Q2
	2007-257	Hydro One Networks Inc.	Thermal uprating of 115 kV circuits D9HS, D10S and Q11S	2009-Q2
	2002-EX070	Hydro One Networks Inc.	Venessa Junction to Norfolk TS: new 115 kV circuit	2009-Q3
	2007-258	Hydro One Networks Inc.	Vansickle TS: Replace transformers	2010-Q4
Northeast	2000-015	Five Nations Energy Inc.	New 132 kv line from a new Moosonee SS to a modified Kashechewan TS to supply 15 - 20 MW load to DeBeers Canada Inc west	2009-Q2
	2008-EX400	Five Nations Energy Inc.	Kashechewan TS: new transformer	2009-Q2
	N/A	Great Lakes Power Ltd.	Mackay TS 115 kV yard refurbishment - on going	2009-Q3
	N/A	Great Lakes Power Ltd.	Third Line TS - Cap Bank #4 and Cap Bank #5 series reactor installation	2009-Q3
	N/A	Great Lakes Power Ltd.	Third Line TS 115 kV yard refurbishment - on going	2010-Q4
	2006-262	Hydro One Networks Inc.	Mississagi Area Generation Rejection Scheme Expansion	2009-Q4
	N/A	Hydro One Networks Inc.	retirement of 25 Hz system	2009-Q4
Northwest	2006-247	Hydro One Networks Inc.	Lakehead TS: new static var compensator (SVC)	2009-Q4
Ottawa	2000-001	Hydro One Networks Inc.	Hawthorne TS: new 1,250 MW Ontario-Quebec interconnection	2009-Q1

(Table B continued)

Zone	CAA-ID#	Transmitter	Description	Proposed I/S Date
Southwest	2006-221	Hydro One Networks Inc.	Halton TS and Meadowvale TS: new shunt capacitors	2008-Q4
	2006-EX299	Hydro One Networks Inc.	Burlington TS: Replace the lower rated 230/115 kV transformer	2009-Q1
	2006-249	Hydro One Networks Inc.	230 kV circuits B4V & B5V: uprate Hanover x Orangeville sections	2009-Q2
	2007-295	Hydro One Networks Inc.	Middleport TS: new 4x250 Mvar shunt capacitors	2009-Q2
	2007-295	Hydro One Networks Inc.	Buchanan TS: new 200 Mvar shunt capacitor	2009-Q3
	2007-295	Hydro One Networks Inc.	Nanticoke TS: new 2x250 Mvar shunt capacitors	2009-Q4
	2006-EX299	Hydro One Networks Inc.	Burlington TS: Replace limiting bus sections	2010-Q2
Toronto	2006-220	Hydro One Networks Inc.	Claireville TS: Reterminate 230 kV side of autotransformer T15 Reterminate 230 kV circuit V73R to Richview Reterminate 230 kV circuit V75R to Kleinburg (V44)	2008-Q4
	2006-246	Hydro One Networks Inc.	Terminate 230 kV circuit V75R (V77R) into Richview TS & Claireville TS	2009-Q2
	2006-248	Hydro One Networks Inc.	Hurontario SS to Jim Yarrow MTS: new 230 kV transmission circuits	2009-Q4
	2006-220	Hydro One Networks Inc.	Claireville TS: Reterminate circuit 230 kV V71RP to Parkway (V71P) Reterminate circuit 230 kV V72R to Cardiff (V41H)	2009-Q4
	2006-224	Hydro One Networks Inc.	Hurontario SS: new switching station Cardiff TS to Hurontario SS: new 230 kV transmission circuits	2010-Q1
	2007-264	Hydro One Networks Inc.	Goreway TS: new T1/T2 DESN station	2010-Q2
	2006-230	Hydro One Networks Inc.	Churchill Meadows TS: new DESN station	2010-Q4
	2008-320	PowerStream	Markham MTS#2: new DESN station	2009-Q4
West	2007-EX328	Hydro One Networks Inc.	Lambton TS: Replace Air Blast breakers with SF6 breakers and replace buswork (strain bus with rigid bus)	2009-Q1
	2007-265	Hydro One Networks Inc.	Keith TS: Replace 230/115 kV autotransformers T11 & T12	2010-Q1

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Appendix C Transmission Outages

The following tables list the 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. The outages that are classified as confidential are omitted from the tables and the impact assessment of those outages is communicated confidentially to the transmission owner/operator.

Table C1 Bruce Zone

Planned Start Date	Planned End Date	Equipment O/S	Outage Request Id	Recall Time	Type	Major Transmission Interface Impacted	Reduction in Limit
None							

Table C2 East Zone

Planned Start Date	Planned End Date	Equipment O/S	Outage Request Id	Recall Time	Type	Major Transmission Interface Impacted	Reduction in Limit
Jan 05 2009 4:00 AM	Jan 11 2009 7:00 PM	Saunders GS: S25L::SAUNDERS_GS::ST.LAWRENCE_TS, 49-S25L, S25L::SAUNDERS_GS::ST.LAWRENCE_TS	6078750	4 Hour	CWW	None	
Mar 16 2009 8:00 AM	Apr 10 2009 6:00 PM	Crosby TS: L20H::CROSBY_JCT::CROSBY_TS, T2-L20H, 49-L20H, L20H::CROSBY_JCT::HINCHINBROOKE_SS, L20H::ST.LAWRENCE_TS::EASTON_JCT, L20H::EASTON_JCT::BROCKVILLE_TS, L20H::EASTON_JCT::BROCKVILLE_TS, 10-L20H, L20H::ST.LAWRENCE_TS::EASTON_JCT, L20H::CROSBY_JCT::HINCHINBROOKE_SS, L20H::CROSBY_JCT::CROSBY_TS, L20H::EASTON_JCT::CROSBY_JCT, T3-L20H, L20H::EASTON_JCT::CROSBY_JCT, 24T2-L20H	5299333	12 Hour	CWW	None	
Apr 14 2009 4:00 AM	May 08 2009 6:00 PM	Dobbin TS: T5, T5-D, T5-H	5541971	8 Hour	CWW	None	
May 11 2009 6:00 AM	May 29 2009 6:00 PM	Smiths Falls TS: L21H::EASTON_YULE_JCT::SMITHS_FALLS_TS, 10-L21H, T3-L21H, L21H::ST.LAWRENCE_TS::EASTON_YULE_JCT, L21H::EASTON_YULE_JCT::CROSBY_JCT, L21H::EASTON_YULE_JCT::CROSBY_JCT, L21H::CROSBY_JCT::CROSBY_TS, L21H::ST.LAWRENCE_TS::EASTON_YULE_JCT, L21H::EASTON_YULE_JCT::SMITHS_FALLS_TS, L21H::CROSBY_JCT::CROSBY_TS, T4-L21H, L21H::CROSBY_JCT::HINCHINBROOKE_SS, 49-L21H, L21H::CROSBY_JCT::HINCHINBROOKE_SS, T1-L21H	5326751	8 Hour	CWW	None	
Aug 31 2009 7:00 AM	Sep 25 2009 6:00 PM	Frontenac TS: 3Q3K, Q3K::WESTBROOK_JCT::FRONTENAC_TS, T3-T, Q3K::WESTBROOK_JCT::FRONTENAC_TS, 29-Q3K, Q3K::CATARAQUI_TS::WESTBROOK_JCT, Q3K::CATARAQUI_TS::WESTBROOK_JCT	6555245	4 Hour	CWW	None	
Sep 21 2009 6:00 AM	Oct 09 2009 4:00 PM	Easton Yule JCT: L22H::EASTON_YULE_JCT::ST.LAWRENCE_TS, 24T1-L22H, L22H::EASTON_YULE_JCT::HINCHINBROOKE_SS, L22H::EASTON_YULE_JCT::SMITHS_FALLS_TS, L22H::EASTON_YULE_JCT::ST.LAWRENCE_TS, L22H::EASTON_YULE_JCT::EASTON_JCT, L22H::EASTON_YULE_JCT::EASTON_JCT, 10-L22H, 49-L22H, L22H::EASTON_JCT::HINCHINBROOKE_SS, L22H::EASTON_YULE_JCT::SMITHS_FALLS_TS, L22H::BROCKVILLE_TS::EASTON_JCT, T3-L22H, L22H::BROCKVILLE_TS::EASTON_JCT	5310000	8 Hour	CWW	None	
Oct 18 2009 6:00 AM	Oct 25 2009 4:00 PM	Dobbin TS: 20-X1P, X1P::DOBBIN_TS::MASSANOGA_JCT, X1P::DOBBIN_TS::MASSANOGA_JCT	6553957	8 Hour	CWW	None	

Table C3 Essa Zone

Planned Start Date	Planned End Date	Equipment O/S	Outage Request Id	Recall Time	Type	Major Transmission Interface Impacted	Reduction in Limit
None							

Table C4 Niagara Zone

Planned Start Date	Planned End Date	Equipment O/S	Outage Request Id	Recall Time	Type	Major Transmission Interface Impacted	Reduction in Limit
Oct 21 2008 8:05 AM	Aug 31 2010 6:00 PM	Beck #2 TS: R76-2, R76, R76, R76-1, R76-1, R76-2	6309369	Non-Recallable	CWW	NY Import NY Export FABC	450 MW 350 MW 50 to 100 MW on top of other outages, see Bruce, Southwest and West tabs
Apr 06 2009 7:00 AM	Apr 17 2009 8:00 PM	Beck #2 TS: TL21L23	5205809	6 Hour	CWW	None	
May 04 2009 4:00 AM	May 15 2009 6:00 PM	Middleport TS: Q23BM::CARLUKE_JCT::MIDDLEPORT_TS, Q23BM::BURLINGTON_TS::BURLNGTNJCT, Q23BM::CARLUKE_JCT::MIDDLEPORT_TS, Q23BM::BURLNGTNJCT::NEALE_JCT, Q23BM::BURLNGTNJCT::NEALE_JCT, Q23BM::BURLINGTON_TS::BURLNGTNJCT, 25-Q23BM, Q23BM::NIAGARA_WEST_JCT::BECK_#2_TS, Q23BM::NIAGARA_WEST_JCT::BECK_#2_TS, T16-Q23BM, 39-Q23BM, Q23BM::BURLINGTON_DESN_TS::BURLNGTN JCT, Q23BM::BURLINGTON_DESN_TS::BURLNGTN JCT, 28-Q23BM	6378639	4 Hour	CWW	FABC	240 - 710 MW
May 19 2009 4:00 AM	May 29 2009 6:00 PM	Beach TS: 17-Q24HM, T3-Q24HM, 25-Q24HM, Q24HM::BEACH_TS::HANNON_JCT, T1-Q24HM, Q24HM::NEBO_JCT::MIDDLEPORT_TS, Q24HM::NEBO_JCT::HANNON_JCT, Q24HM::NEBO_JCT::HANNON_JCT, Q24HM::NEBO_TS::NEBO_JCT, Q24HM::NEBO_TS::NEBO_JCT, Q24HM::BECK_#2_TS::HANNON_JCT, Q24HM::BECK_#2_TS::HANNON_JCT, Q24HM::NEBO_JCT::MIDDLEPORT_TS, Q24HM::BEACH_TS::HANNON_JCT, 28-Q24HM	6378685	4 Hour	CWW	FABC	May 19 - 25 190 - 410 MW May 25 - 29 240 - 460 MW
Sep 14 2009 4:00 AM	Sep 25 2009 6:00 PM	Nebo TS: T2-Q29HM, Q29HM::BEACH_TS::HANNON_JCT, Q29HM::NEBO_JCT::MIDDLEPORT_TS, 25-Q29HM, Q29HM::NEBO_JCT::MIDDLEPORT_TS, T4-Q29HM, Q29HM::BEACH_TS::HANNON_JCT, 17-Q29HM, Q29HM::BECK_#2_TS::HANNON_JCT, Q29HM::NEBO_TS::NEBO_JCT, Q29HM::NEBO_TS::NEBO_JCT, Q29HM::NEBO_JCT::HANNON_JCT, Q29HM::NEBO_JCT::HANNON_JCT, Q29HM::BECK_#2_TS::HANNON_JCT, 28-Q29HM	6378699	4 Hour	CWW	FABC	Sept. 14 - 21 50 - 100 MW Sept. 21 - 25 50 - 250 MW

Table C5 Northeast Zone

Planned Start Date	Planned End Date	Equipment O/S	Outage Request Id	Recall Time	Type	Major Transmission Interface Impacted	Reduction in Limit
Jan 19 2009 5:00 AM	Mar 20 2009 6:00 PM	Clarabelle JCT: S22A::MARTINDALE_TS::CLARABELLE_JCT, S22A::CLARABELLE_JCT::CLARABELLE_TS, S22A::MARTINDALE_TS::CLARABELLE_JCT, 26-S22A, S22A::CLARABELLE_JCT::CLARABELLE_TS, S22A::CLARABELLE_JCT::ALGOMA_TS, S22A::CLARABELLE_JCT::ALGOMA_TS, T2-S22A, 9-S22A	6539063	4 Hour	CWW	EWTE	50 MW
Jan 19 2009 6:00 AM	Mar 16 2009 8:00 AM	Third Line TS: SAULT#3, SAULT#3, 583, 585, 599, 598, 588, SAULT#3, SAULT#3	6519494	5 Hour	CWW	None	

Table C6 Northwest Zone

Planned Start Date	Planned End Date	Equipment O/S	Outage Request Id	Recall Time	Type	Major Transmission Interface Impacted	Reduction in Limit
Jan 19 2009 7:00 AM	Feb 12 2009 6:00 PM	Port Arthur TS #1: 2A6P, A6P-LC	6394597	3 Hour	CWW	None	
Jan 21 2009 7:00 AM	Feb 19 2009 6:00 PM	Kenora TS: 34-K21W, K21W::WHITESHELL_CTS::KENORA_TS, K21W::WHITESHELL_CTS::KENORA_TS	6267477	4 Hour	CWW	OMTE, OMTW, EWTE, EWTW, MPFN, MPFS	**Jan 21-25 and Feb 19: These penalties are for S22A + K21W.** OMTE - 100 MW OMTW - 100 MW EWTE - 50 MW **Jan 26 - Feb 18: These penalties are for S22A + F25A + K21W outages.** OMTE - 100 MW OMTW - 250 MW EWTE - 75 MW EWTW - 120 MW MPFN - 50 MW MPFS - 140 MW
Jan 26 2009 7:00 AM	Feb 18 2009 6:00 PM	Fort Frances TS: 22-F25A, F25A::FORT_FRANCES_TS::MACKENZIE_TS, F25A::FORT_FRANCES_TS::MACKENZIE_TS, 20-F25A	6267472	4 Hour	CWW	OMTE, OMTW, EWTE, EWTW, MPFN, MPFS	**These penalties are for S22A + F25A + K21W outages.** OMTE - 100 MW OMTW - 250 MW EWTE - 75 MW EWTW - 120 MW MPFN - 50 MW MPFS - 140 MW
Feb 20 2009 7:00 AM	Mar 19 2009 6:00 PM	Kenora TS: 34-K22W, K22W::WHITESHELL_CTS::KENORA_TS, K22W::WHITESHELL_CTS::KENORA_TS	6267394	4 Hour	CWW	OMTE, OMTW, EWTE, EWTW, MPFN	**These penalties are for S22A + D26A + K22W.** OMTE - 100 MW OMTW - 250 MW EWTE - 75 MW EWTW - 120 MW MPFN - 50 MW
Feb 20 2009 7:00 AM	Mar 21 2009 6:00 PM	Mackenzie TS: 20-D26A, D26A::DRYDEN_TS::MACKENZIE_TS, D26A::DRYDEN_TS::MACKENZIE_TS, 25-D26A	6267398	4 Hour	CWW	OMTE, OMTW, EWTE, EWTW, MPFN	**Feb 20 - Mar 19: These penalties are for S22A + D26A + K22W.** OMTE - 100 MW OMTW - 250 MW EWTE - 75 MW EWTW - 120 MW MPFN - 50 MW **Mar 20-21: These penalties are for D26A (regardless of S22A status).** OMTE - 70 MW OMTW - 250 MW EWTE - 75 MW EWTW - 50 MW MPFN - 50 MW
Mar 23 2009 7:00 AM	Apr 17 2009 6:00 PM	Kenora TS: K23D::TCPL_VERMILL_BAY_JCT::KENORA_TS, 34-K23D, K23D::TCPL_VERMILL_BAY_JCT::KENORA_TS, 3411-34	6267374	4 Hour	CWW	OMTE, OMTW, EWTE, MPFN	OMTE - 50 MW OMTW - 250 MW EWTE - 75 MW MPFN - 25 MW
Apr 20 2009 7:00 AM	May 22 2009 6:00 PM	Fort Frances TS: K24F::KENORA_TS::FORT_FRANCES_TS, K24F::KENORA_TS::FORT_FRANCES_TS, 22-K24F, 34-K24F	6267369	4 Hour	CWW	OMTE, OMTW, EWTE, MPFN, MPFS	OMTE - 50 MW OMTW - 250 MW EWTE - 75 MW MPFN - 50 MW MPFS - 140 MW
Nov 02 2009 7:00 AM	Nov 19 2009 6:00 PM	Ignace JCT: M2D-D, 25-M2D	6395496	4 Hour	CWW	None	

Table C7 Ottawa Zone

Planned Start Date	Planned End Date	Equipment O/S	Outage Request Id	Recall Time	Type	Major Transmission Interface Impacted	Reduction in Limit
None							

Table C8 Southwest Zone

Planned Start Date	Planned End Date	Equipment O/S	Outage Request Id	Recall Time	Type	Major Transmission Interface Impacted	Reduction in Limit
Dec 01 2008 5:00 AM	Feb 27 2009 6:00 PM	Burlington TS: T6, T6P, T6-H1, T6K	6526791	Non-Recallable	CWW	None	
Jan 05 2009 6:00 AM	Jan 30 2009 3:00 PM	Trafalgar TS: K1K2	4702290	3 Day	CWW	None	
Jan 12 2009 4:00 AM	Jan 22 2009 8:00 PM	Amaranth Jct: B5V::HANOVER_TS::AMARANTH_JCT, 145B5V-MSO1, B5V::HANOVER_TS::AMARANTH_JCT, B5V-22	5817089	12 Hour	CWW	FABC	300 - 450 MW
Jan 26 2009 5:00 AM	Feb 05 2009 7:00 PM	Amaranth Jct: 145B4V-MSO1, B4V-22, B4V::HANOVER_TS::AMARANTH_JCT, B4V::HANOVER_TS::AMARANTH_JCT	6133173	12 Hour	CWW	FABC	300 - 450 MW
Feb 09 2009 4:00 AM	Feb 19 2009 8:00 PM	Hanover TS: B5V-22, B5V::HANOVER_TS::AMARANTH_JCT, B5V::HANOVER_TS::AMARANTH_JCT, 145B5V-MSO1	5802270	12 Hour	CWW	FABC	300 - 450 MW
Feb 23 2009 5:00 AM	Mar 05 2009 7:00 PM	Hanover TS: B4V-22, B4V::HANOVER_TS::AMARANTH_JCT, B4V::HANOVER_TS::AMARANTH_JCT, 145B4V-MSO1	5252051	12 Hour	CWW	FABC	300 - 450 MW
Mar 02 2009 5:30 AM	May 29 2009 5:00 PM	Woodstock TS: W12W::INGERSOLL_TS::WOODSTOCK_TS, 10-W7W, W7W::INGERSOLL_TS::WOODSTOCK_TS, W12W::INGERSOLL_TS::WOODSTOCK_TS, 10-W12W, W7W::INGERSOLL_TS::WOODSTOCK_TS, 38W12W-10, 38W7W-10	6453013	Non-Recallable	CWW	None	
Mar 06 2009 6:00 PM	Mar 16 2009 6:00 AM	Trafalgar TS: 31-R17T	6313054	8 Hour	CWW	None	
Mar 09 2009 4:00 AM	Mar 19 2009 8:00 PM	Amaranth Jct: 145B4V-MSO1, B4V::HANOVER_TS::AMARANTH_JCT, B4V::HANOVER_TS::AMARANTH_JCT, B4V-22	5252056	5 Day	CWW	FABC	440 - 760 MW
Mar 23 2009 4:00 AM	Apr 02 2009 8:00 PM	Hanover TS: B5V::HANOVER_TS::AMARANTH_JCT, 145B5V-MSO1, B5V::HANOVER_TS::AMARANTH_JCT, B5V-22	6133232	12 Hour	CWW	FABC	Mar. 23 - 27 440 - 760 MW Mar. 27 - 30 440 - 610 MW Mar. 30 - Apr. 2 440 - 760 MW
May 04 2009 6:15 AM	May 15 2009 2:00 PM	Middleport TS: L81L85	5776356	24 Hour	CWW	FABC FETT	240 - 710 MW May 4 - 8 1000 MW May 8 - 11 700 MW May 11 - 15 1000 MW
Jun 03 2009 5:00 AM	Jun 30 2009 6:00 PM	Nanticoke TS: P1L22	6474137	Non-Recallable	CWW	None	
Aug 04 2009 7:00 AM	Aug 28 2009 2:00 PM	Trafalgar TS: K1K2	6545915	5 Day	CWW	None	
Sep 08 2009 7:00 AM	Oct 02 2009 2:00 PM	Trafalgar TS: KL14	6545918	5 Day	CWW	None	

Table C9 Toronto Zone

Planned Start Date	Planned End Date	Equipment O/S	Outage Request Id	Recall Time	Type	Major Transmission Interface Impacted	Reduction in Limit
Oct 26 2008 7:00 PM	Mar 06 2009 7:00 PM	Leaside TS: H3L::BLOOR_STREET_JCT::LEASIDE_TS, H3L::GERRARD_TS::BLOOR_STREET_JCT, H3L::GERRARD_TS::BLOOR_STREET_JCT, H3L-34, 34-H3L, H3L::BLOOR_STREET_JCT::LEASIDE_TS	4210002	4 Hour	CWW	None	
Nov 03 2008 3:00 AM	Jan 23 2009 7:00 PM	Cherrywood TS: JL543	5980717	Non-Recallable	CWW	None	
Nov 10 2008 3:00 AM	Jan 30 2009 7:00 PM	Cherrywood TS: AL542	6531215	Non-Recallable	CWW	None	
Jan 05 2009 6:00 AM	Jan 29 2009 7:00 PM	Claireville TS: K2L71, KL83, KL71, K1K2	6297975	Non-Recallable	CWW	None	
Jan 10 2009 4:00 AM	Mar 12 2009 7:00 PM	Pickering A SS: P7C::PICKERING_A_SS::CHERRYWOOD_TS, Q_BUS, L9Q, 44-P9C, L7H, T4H, P7C::PICKERING_A_SS::CHERRYWOOD_TS, H_BUS, T3Q, 81-P9C, 44-P7C, 81-P7C, T4L9, T3Q, P9C::PICKERING_A_SS::CHERRYWOOD_TS, P9C::PICKERING_A_SS::CHERRYWOOD_TS, T3L7, T4H	5979694	Non-Recallable	CWW	None	
Jan 12 2009 6:00 AM	Jan 23 2009 7:00 PM	Bloor Street JCT: H1L::GERRARD_TS::BLOOR_STREET_JCT, H1L::GERRARD_TS::BLOOR_STREET_JCT, H1L::BLOOR_STREET_JCT::LEASIDE_TS, H3L::GERRARD_TS::BLOOR_STREET_JCT, 34-H1L, H1L-34, H3L::GERRARD_TS::BLOOR_STREET_JCT, H1L::BLOOR_STREET_JCT::LEASIDE_TS, H3L::BLOOR_STREET_JCT::LEASIDE_TS, H3L::BLOOR_STREET_JCT::LEASIDE_TS, 34-H3L, H3L-34	4214179	4 Hour	CWW	None	
Jan 12 2009 6:00 AM	Jan 26 2009 7:00 PM	Gerrard TS: H1L::GERRARD_TS::BLOOR_STREET_JCT, 34-H1L, H1L-34, H1L::BLOOR_STREET_JCT::LEASIDE_TS, H1L::BLOOR_STREET_JCT::LEASIDE_TS, H1L::GERRARD_TS::BLOOR_STREET_JCT	4214193	4 Hour	CWW	None	
Jan 12 2009 6:00 AM	Jan 26 2009 7:00 PM	Leaside TS: H3L::BLOOR_STREET_JCT::LEASIDE_TS, 34-H1L, H1L::GERRARD_TS::BLOOR_STREET_JCT, H3L::BLOOR_STREET_JCT::LEASIDE_TS, H1L-34, 34-H3L, H3L::GERRARD_TS::BLOOR_STREET_JCT, H3L-34, H1L::BLOOR_STREET_JCT::LEASIDE_TS, H1L::BLOOR_STREET_JCT::LEASIDE_TS, H1L::GERRARD_TS::BLOOR_STREET_JCT, H3L::GERRARD_TS::BLOOR_STREET_JCT	4214326	4 Hour	CWW	None	
Jan 15 2009 6:00 AM	Jan 31 2009 6:00 PM	Bloor Street JCT: H1L::GERRARD_TS::BLOOR_STREET_JCT, H1L::GERRARD_TS::BLOOR_STREET_JCT, H1L-34, 34-H1L, H1L::BLOOR_STREET_JCT::LEASIDE_TS, H1L::BLOOR_STREET_JCT::LEASIDE_TS	4747618	4 Hour	CWW	None	
Feb 03 2009 3:00 AM	Apr 15 2009 7:00 PM	Cherrywood TS: JL542, AL543	5980721	Non-Recallable	CWW	None	
Jan 26 2009 6:00 AM	Feb 12 2009 6:00 PM	Leaside TS: H1L::BLOOR_STREET_JCT::LEASIDE_TS, H1L::BLOOR_STREET_JCT::LEASIDE_TS, H1L::GERRARD_TS::BLOOR_STREET_JCT, H1L-34, 34-H1L, H1L::GERRARD_TS::BLOOR_STREET_JCT	4747571	4 Hour	CWW	None	
Jan 30 2009 6:00 AM	Feb 24 2009 7:00 PM	Claireville TS: HL74, H2L41, H1H2, H2L43	6297981	Non-Recallable	CWW	None	
Feb 02 2009 6:00 AM	Feb 20 2009 6:00 PM	Gerrard TS: H3L-34, H3L::BLOOR_STREET_JCT::LEASIDE_TS, H3L::GERRARD_TS::BLOOR_STREET_JCT, 34-H3L, H3L::GERRARD_TS::BLOOR_STREET_JCT, H3L::BLOOR_STREET_JCT::LEASIDE_TS	4747565	4 Hour	CWW	None	
Feb 02 2009 7:00 AM	Feb 20 2009 7:00 PM	Leaside TS: 34-H3L, H3L-34, H3L::GERRARD_TS::BLOOR_STREET_JCT, H3L::BLOOR_STREET_JCT::LEASIDE_TS, H3L::GERRARD_TS::BLOOR_STREET_JCT, H3L::BLOOR_STREET_JCT::LEASIDE_TS	4747559	4 Hour	CWW	None	
Feb 09 2009 7:30 AM	Apr 03 2009 2:00 PM	Claireville TS: AL510	6353253	7 Day	CWW	None	
Feb 25 2009 7:00 PM	Apr 10 2009 7:00 PM	Claireville TS: T15L73, 51-V73RS, HL73	6291998	Non-Recallable	CWW	None	
Mar 15 2009 6:00 AM	Apr 10 2009 7:00 PM	Claireville TS: H1H2, HL75, H1L73, H1L82, HL73	6292003	Non-Recallable	CWW	None	
Mar 23 2009 7:00 AM	Apr 17 2009 6:00 PM	Leaside TS: L14L16	6546193	Non-Recallable	CWW	None	
Apr 20 2009 7:00 AM	Jun 12 2009 2:00 PM	Claireville TS: AL560	6544607	7 Day	CWW	None	
Apr 20 2009 8:00 AM	May 08 2009 6:00 PM	Claireville TS: K1K2, K1L42, KT15, KL76, KL72	6292072	Non-Recallable	CWW	None	
May 10 2009 6:00 PM	Jun 23 2009 6:00 PM	Claireville TS: KL72, 51-V72RS, T16L72	6292079	Non-Recallable	CWW	None	

(Table C9 continued)

Planned Start Date	Planned End Date	Equipment O/S	Outage Request Id	Recall Time	Type	Major Transmission Interface Impacted	Reduction in Limit
May 11 2009 5:00 AM	May 29 2009 7:00 PM	Claireville TS: T16-HT16, T16L75, T16L72	6292096	Non-Recallable	CWW	FETT	May 11 - 15 1000 MW May 15 - 29 250 MW
May 11 2009 5:00 AM	May 21 2009 7:00 PM	Claireville TS: HL75, T16L75, 51-V75P	6292107	Non-Recallable	CWW	None	
May 16 2009 6:00 AM	May 29 2009 6:00 PM	Claireville TS: T16-W4, T16, T16-HT16	6265562	4 Hour	CWW	FETT	250 MW
Jun 24 2009 5:00 AM	Jul 24 2009 6:00 PM	Claireville TS: K2L71, L71L77	6298024	Non-Recallable	CWW	None	
Jun 24 2009 5:00 PM	Jul 16 2009 5:00 PM	Richview TS: 88-V71RP, T14L71, KL71, 51-V71RP	6292245	Non-Recallable	CWW	None	
Aug 31 2009 4:00 AM	Nov 20 2009 7:00 PM	Cherrywood TS: T15L35, T15-HT15, DT15, T15-W2, T15-HT15, T15-HT15, T15	5541956	36 Hour	CWW	None	
Sep 08 2009 6:00 AM	Sep 25 2009 3:30 PM	Cherrywood TS: AL551	6447964	24 Hour	CWW	None	
Sep 30 2009 6:00 AM	Oct 06 2009 4:00 PM	Cherrywood TS: B23C::CHERRYWOOD_TS::WHITBY_JCT, B23C::WHITBY_TS::WHITBY_JCT, B23C::WILSON_TS::WILSON_JCT, B23C::WILSON_TS::WILSON_JCT, B23C::CHERRYWOOD_TS::WHITBY_JCT, B23C::WHITBY_JCT::WILSON_JCT, T2-B23C, T4-B23C, B23C::WILSON_JCT::BELLEVILLE_TS, T3-B23C, 81-B23C, 78-B23C, B23C::WHITBY_TS::WHITBY_JCT, B23C::WHITBY_JCT::WILSON_JCT, B23C::WILSON_JCT::BELLEVILLE_TS	6372066	4 Hour	CWW	FIO	
Oct 06 2009 7:00 AM	Oct 17 2009 3:30 PM	Cherrywood TS: JL541	6447834	3 Hour	CWW	None	

Table C10 West Zone

Planned Start Date	Planned End Date	Equipment O/S	Outage Request Id	Recall Time	Type	Major Transmission Interface Impacted	Reduction in Limit
Jan 12 2009 5:00 AM	Mar 27 2009 5:00 PM	Buchanan TS: 19-N22W, N22W::BOSTWICK_ROAD_JCT::LUCASVILLE_JCT, N22W::BOSTWICK_ROAD_JCT::LUCASVILLE_JCT, N22W::LUCASVILLE_JCT::MODELAND_TS, N22W::LUCASVILLE_JCT::MODELAND_TS, N22W::LUCASVILLE_JCT::SARNIA_SCOTT_TS, T4-N22W, N22W::LUCASVILLE_JCT::SARNIA_SCOTT_TS, N22W::BOSTWICK_ROAD_JCT::WONDERLAND_TS, 40-N22W	6000011	4 Hour	CWW	BLIP FABC	500 MW Jan. 12 - 22 300 - 450 MW Jan. 22 - 26 0 - 150 MW Jan. 26 - Feb. 5 300 - 450 MW Feb. 5 - 9 0 - 150 MW Feb. 9 - 19 300 - 450 MW Feb. 19 - 23 0 - 150 MW Feb. 23 - Mar 5 300 - 450 MW Mar. 5 - 9 0 - 150 MW Mar. 9 - 19 440 - 760 MW Mar. 19 - 23 140 - 460 MW Mar. 23 - 27 440 - 760 MW
Feb 03 2009 4:00 AM	Feb 28 2009 5:00 PM	Lambton TS #2: KL25	5757364	Non-Recallable	CWW	None	
Feb 28 2009 4:00 AM	Mar 12 2009 6:00 PM	Lambton TS #2: KL37, KL25, T5-K, KL51, K1_BUS, K1K2, T5-K	5378020	Non-Recallable	CWW	None	
Mar 02 2009 5:30 AM	May 29 2009 5:00 PM	Woodstock TS: 10-W12W, 10-W7W	6565290	Non-Recallable	CWW	None	
Mar 30 2009 5:00 AM	May 01 2009 5:00 PM	Modeland TS: N21W::LUCASVILLE_JCT::MODELAND_TS, N21W::LUCASVILLE_JCT::MODELAND_TS, T3-N21W, N21W::LUCASVILLE_JCT::SARNIA_SCOTT_TS, 40-N21W, N21W::LUCASVILLE_JCT::SARNIA_SCOTT_TS, 36N21W-62	6293420	4 Hour	CWW	BLIP FABC	500 MW Mar. 30 - Apr. 2 440 - 760 MW Apr. 2 - 6 140 - 460 MW Apr. 6 - 23 190 - 510 MW Apr. 23 - 27 100 - 400 MW Apr. 27 - May 1 140 - 460 MW
Apr 14 2009 4:45 AM	May 08 2009 4:30 PM	Buchanan TS: SC11SC, SC11, SC11K1, SC11SC	6314765	Non-Recallable	CWW	None	
May 19 2009 4:00 AM	May 24 2009 6:00 PM	Lambton TS #2: T8, T8-L4D, 27-T8	4622886	3 Day	CWW	Michigan Imp. Michigan Exp.	about 300 MW about 300 MW
Jun 22 2009 4:00 AM	Jul 10 2009 7:00 PM	Buchanan TS: L33L43, 19-W43L, T13-W43L, 19-W43L, W43L::BUCHANAN_TS::BUCHAN230JCT, W43L::BUCHANAN_DESN_TS::BUCHAN230JCT, HL43, W52-W43L, W43L::BUCHAN230JCT::LONGWOOD_TS, W43L::BUCHANAN_TS::BUCHAN230JCT, W43L::BUCHAN230JCT::LONGWOOD_TS, W43L::BUCHANAN_DESN_TS::BUCHAN230JCT	6244712	16 Hour	CWW	BLIP FABC	500 MW 0 - 150 MW
Aug 31 2009 4:00 AM	Oct 16 2009 7:00 PM	Buchanan TS: SC21D, SC21SC, SC21-D, SC21	6244765	25 Day	CWW	None	
Sep 21 2009 5:00 AM	Oct 09 2009 6:00 PM	Waterman CTS: J5D::WATERMAN_CTS::KEITH_TS, J5D::WATERMAN_CTS::KEITH_TS, PSR5-S, PSR5-2, PSR5-2, PSR5-1, 230B_BUS, PSR5	6509482	8 Hour	CWW	BLIP FABC Michigan Imp. Michigan Exp.	500 MW Sep. 21 - 25 50 - 250 MW Sep. 25 - Oct. 9 0 - 150 MW about 300 MW about 450 MW
Oct 19 2009 4:00 AM	Dec 04 2009 7:00 PM	Buchanan TS: SC22-H, SC22, SC22H, SC22SC	6244771	25 Day	CWW	None	
Oct 19 2009 4:00 AM	Nov 27 2009 6:00 PM	Lambton TS #2: 27-T7, T7-L4D, T7	6509773	3 Day	CWW	Michigan Imp. Michigan Exp.	about 300 MW about 300 MW

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