

**18-MONTH OUTLOOK:**

# Ontario Demand Forecast

From January 2006 to June 2007



This page intentionally left blank.

## Executive Summary

The IESO is responsible for forecasting electricity demand on the IESO-controlled grid and to assess whether the transmission and generation facilities are adequate to meet Ontario's needs. This document presents the demand forecast for the period from January 2006 to June 2007 and supersedes the previous forecast released in September 2005.

### Economic Outlook

We have updated the economic assumptions that underpin the forecast to reflect the most recent outlook for the Ontario economy. There are two main forces shaping Ontario's economy.

- A strong dollar and high oil prices have a negative impact on Ontario's manufacturers. The manufacturing sector has shed 33,000 jobs since the start of 2005.
- Low interest rates foster business investment and consumption. Growth is being driven by the service sector and construction.
- Overall, the economic outlook is similar to the previous forecast.

### Actual Demand

Since the last forecast we have recorded actual demand and weather data for September, October and November. Here are the results:

#### September

- Average temperature was the 3rd highest since 1970
- Energy demand was 3.1% higher than forecast (0.8% on a weather-corrected basis)
- Weather-corrected peak demand was 270 MW lower than forecasted.

#### October

- Average temperature was slightly warmer than normal
- Energy demand was 1.8% lower than forecast (2.3% lower on a weather-corrected basis)
- Weather-corrected peak demand was 125 MW lower than forecast

#### November

- Average temperature was warmer than normal
- Energy demand was 2.9% lower than forecast (2.2% lower on a weather-corrected basis)
- Weather-corrected peak demand was 250 MW lower than forecast

The period was warmer than normal. For September that means higher cooling loads but lower heating load for October and November.

## Methodology

The demand forecast methodology is unchanged from previous forecasts. The models and weather scenarios were updated to include actual data through the end of October 2005.

## Demand Forecast

The demand forecast is similar to the previous forecast. The only changes have been the inclusion of actual data and an updated economic forecast. Neither of these has had a significant impact on the forecast. Annual energy demand is expected to grow by 0.9% in 2005 (154.9 TWh) and 1.3% in 2006 (157.0 TWh).

The peak forecast is also very similar to the previous forecast. The weekly peaks are 30 MW higher - on average – compared to the previous forecast.

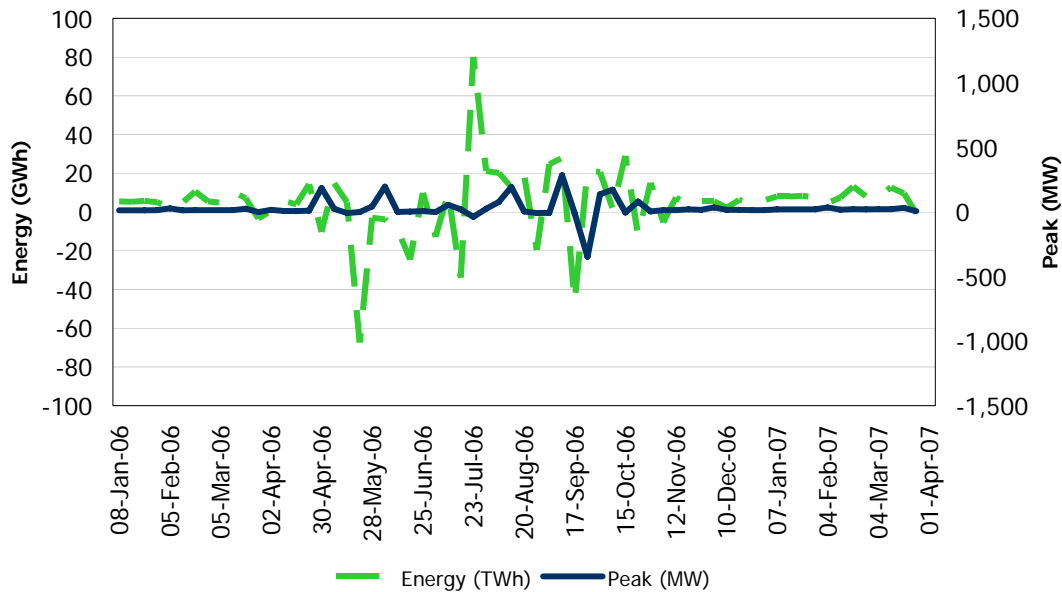
Table 1 has the Normal weather, Expected seasonal and Extreme weather peak demands for the seasons covered in this 18-month forecast.

**Table 1: Forecasted Peak Demands**

Season	Normal Weather Peak (MW)	Expected Seasonal Peak (MW)	Extreme Weather Peak (MW)
Winter 2006	24,285	24,899	25,802
Summer 2006	24,232	25,917	27,407
Winter 2007	24,547	25,161	26,088

Figure 1 graphically displays the difference in weekly energy and peak demand between this forecast and the previous 18-month forecast.

**Figure 1: Comparison of Current and Previous Forecast (Current less Previous)**



- End of Section -

### **Caution and Disclaimer**

The contents of these materials are for discussion and information purposes and are provided “as is” without representation or warranty of any kind, including without limitation, accuracy, completeness or fitness for any particular purpose. The Independent Electricity System Operator (IESO) assumes no responsibility to you or any third party for the consequences of any errors or omissions. The IESO may revise these materials at any time in its sole discretion without notice to you. Although every effort will be made by the IESO to update these materials to incorporate any such revisions it is up to you to ensure you are using the most recent version

This page intentionally left blank.

# Table of Contents

<b>Executive Summary .....</b>	<b>iii</b>
<b>Table of Contents .....</b>	<b>vii</b>
<b>List of Tables .....</b>	<b>viii</b>
<b>List of Figures .....</b>	<b>viii</b>
<b>1.0 Introduction .....</b>	<b>1</b>
1.1 Outlook Documents .....	1
1.2 Demand Forecast Document .....	1
<b>2.0 Historical Demand .....</b>	<b>3</b>
2.1 Historical Review .....	3
2.2 Historical Energy Demand .....	4
2.3 Historical Peak Demand .....	6
2.4 Percent of Time or Load Duration .....	8
<b>3.0 Forecasting Process and Assumptions .....</b>	<b>11</b>
3.1 Calendar Drivers for Forecast .....	11
3.2 Economic Drivers for Forecast .....	11
3.3 Weather Drivers for Forecast .....	11
3.4 Conservation and Demand Response .....	13
<b>4.0 Demand Forecast .....</b>	<b>15</b>
4.1 Load Duration Curves - Winter 2006 .....	18
4.2 Load Duration Curves – Summer 2006 .....	19
4.3 Comparison of Current and Previous Forecast .....	20
<b>Appendix A Energy Demand Forecast Details .....</b>	<b>21</b>
<b>Appendix B Peak Demand Forecast Details .....</b>	<b>23</b>
<b>Appendix C Analytical Factors .....</b>	<b>27</b>

## List of Tables

Table 1: Forecasted Peak Demands .....	iv
Table 2.1: Historical Weather and Demand Summary .....	4
Table 2.2: Actual and Weather Corrected Weekly Energy Demand.....	5
Table 2.3: Actual and Weather Corrected Weekly Peak Demand.....	7
Table 3.1: Forecast of Ontario Economic Drivers .....	11
Table 3.2: Normal and Extreme Weather .....	13
Table 4.1: Forecasted Ontario Weekly Demand.....	16
Table 4.2: Summary Statistics for Winter 2006 .....	19
Table 4.3: Summary Statistics for Summer 2006.....	20
Table 4.4: Current versus Previous Forecast .....	20
Table A1: Weekly Zonal Energy Forecast, Normal Weather .....	21
Table B1: Weekly Zonal Coincident Peak Demand Forecast, Normal Weather .....	23
Table B2: Weekly Zonal Non-Coincident Peak Demand Forecast, Normal Weather .....	25
Table C1: Factors Affecting Demand .....	27

## List of Figures

Figure 1: Comparison of Current and Previous Forecast (Current less Previous) .....	iv
Figure 2.1: Weekly Peak Day Temperature – Actual and Weather Scenarios .....	3
Figure 2.2: Energy Demand – 52-Week Moving Average.....	5
Figure 2.3: Weekly Winter Peak Days – Demand and Temperature.....	6
Figure 2.4: Peak Demand – 52-Week Moving Average.....	7
Figure 2.5: Load Duration Curves - September, October and November 2005.....	9
Figure 4.1: Weekly Energy Demand – History and Forecast .....	15
Figure 4.2: Weekly Peak Demand Forecast – Weather Scenarios .....	16
Figure 4.3: Load Duration Curve - Winter 2006.....	18
Figure 4.4: Load Duration Curve - Summer 2006 .....	19



# 1.0 Introduction

## 1.1 Outlook Documents

The Ontario Electricity Market Rules (Chapter 5 Section 7.1) require that a demand forecast for the next 18 months be produced and published on a quarterly basis. This Ontario Demand Forecast meets this requirement and covers the period from January 2006 to June 2007. It supersedes the previous forecast released September 27, 2005.

## 1.2 Demand Forecast Document

This document provides an 18-Month forecast of electricity demand for Ontario, based on the stated assumptions and using the methodology described in the document "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\\_2005dec.pdf](http://www.ieso.ca/imoweb/pubs/marketReports/Methodology_RTAA_2005dec.pdf)). Readers may envision other scenarios, recognizing the uncertainties associated with various input assumptions, and are encouraged to use their own judgement in considering possible future scenarios. This forecast provides a base upon which changes in assumptions can be considered.

Ontario demand is the sum of coincident loads plus the losses on the IESO-controlled grid. This demand forecast was based on actual demand, weather and economic data through the end of October 2005. Data for November 2005 has been incorporated into the tables and figures of this document. This document is divided into the following sections:

- Section 2.0 looks at historical demand.
- Section 3.0 describes the assumptions used in this forecast of electricity demand
- Section 4.0 has a summary of forecast results
- Appendices A through C contain additional forecast details and analysis.

Readers are invited to provide comments or suggestions regarding the content of this or future reports. To do so, please call the IESO Help Centre at 905-403-6900 or 1-888-448-7777 or send an email to [helpcentre@ieso.ca](mailto:helpcentre@ieso.ca), or to [forecasts.demand@ieso.ca](mailto:forecasts.demand@ieso.ca).

Electronic copies of the forecast and weather scenarios are available upon request.

- End of Section -

This page intentionally left blank.

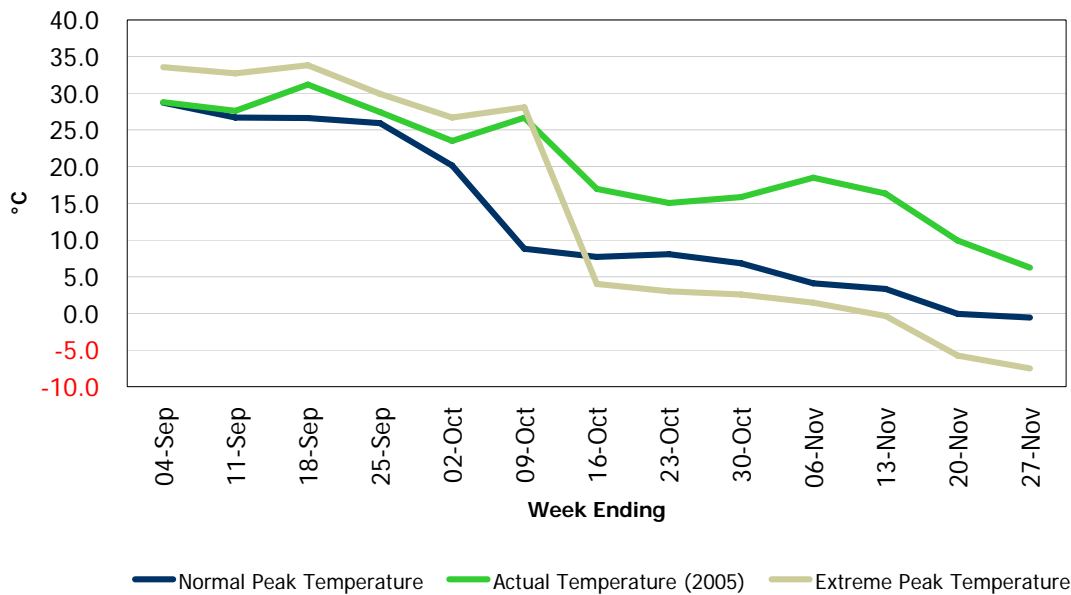
## 2.0 Historical Demand

This section covers historical energy and peak demand. Ontario measures peak demand as the average over the course of a clock hour. The weather-corrected numbers are generated based on Normal weather.

### 2.1 Historical Review

The historical database now includes the experiences for September, October and November. This period was warmer than normal. This three month period of 2005 had the 3<sup>rd</sup> highest average temperature for any September-November since 1970. The fall of 1998 had the highest average temperature but that was due to a lack of cool weather in October. Figure 2.1 shows the weekly peak day temperatures for 2005 compared to the Normal and Extreme weather scenarios.

**Figure 2.1: Weekly Peak Day Temperature – Actual and Weather Scenarios**



September is a cooling month, while October and November are heating months. Therefore the this period is not consistent in terms of weather and demand. In 2002 and 2005, the October peak demand occurred on days where the temperature was greater than 25°C. This is uncommon as the October peak usually occurs on days with single-digit temperatures. The November peak is consistently on a cold weather day.

Table 2.1 contains a summary of weather and demand for the months that have been incorporated into the model and report since the last Outlook. A couple of items to note:

- The fall and spring have a great deal of weather variability.
- Energy demand is influenced by the number of days in the month.

Table 2.1: Historical Weather and Demand Summary

Historical Analysis		November	October	September
Weather - Actual	Average Temperature (°C)	7.8	14.5	23.8
	Minimum Temperature (°C)	-6.3	6.2	13.1
	Maximum Temperature (°C)	18.9	25.8	31.6
Weather - Normal	Normal Average Temperature (°C)	6.5	13.6	21.6
	Normal Minimum Temperature (°C)	-2.0	6.8	13.1
	Normal Maximum Temperature (°C)	16.4	23.3	29.8
Demand - Actual	Peak Demand (MW)	22,564	20,752	23,914
	Average Hour (MW)	17,279	16,381	17,434
	Minimum Hour (MW)	12,548	12,112	12,541
	90th Percentile (MW)	20,020	18,944	20,722
	Percent above 20,000 (MW)	10.3%	2.9%	19.5%
	# of Hours Above 20,000 (MW)	74	22	140
	Energy Demand (GWh)	12,441	12,187	12,553
Demand - Weather Corrected	Peak Demand (MW)	22,475	21,307	21,901
	Energy Demand (GWh)	12,525	12,140	12,284
Demand - Blended Forecast	Peak Demand (MW)	22,726	20,822	22,171
	Energy Demand (GWh)	12,808	12,412	12,179

Notes for Table 2.1 – Weather is for Toronto. Temperature is the daily high. Forecast is the average of all forecasts covering the period.

## 2.2 Historical Energy Demand

Actual energy demand was 37,180 GWh (36,948 GWh weather-corrected) for September to November. There was no change from 2004 – but a 1.3% decrease on a weather-corrected basis. Since the summer - when energy demand was up significantly - demand has tapered off. In fact, the weather-sensitive demand over the summer hid the underlying weakness in baseload demand. This is attributable to lower economic activity.

Figure 2.2 shows the 52-week moving average of the actual minimum and average hourly demand. The significant weather impact of the summer is seen in the figure as it drives up energy demand. Although the summer of 2002 had episodes of extreme heat it was not sustained like 2005. The earlier drop-off into the summer of 2003 coincides with an increase in the Canadian dollar and a cool summer.

Figure 2.2: Energy Demand – 52-Week Moving Average

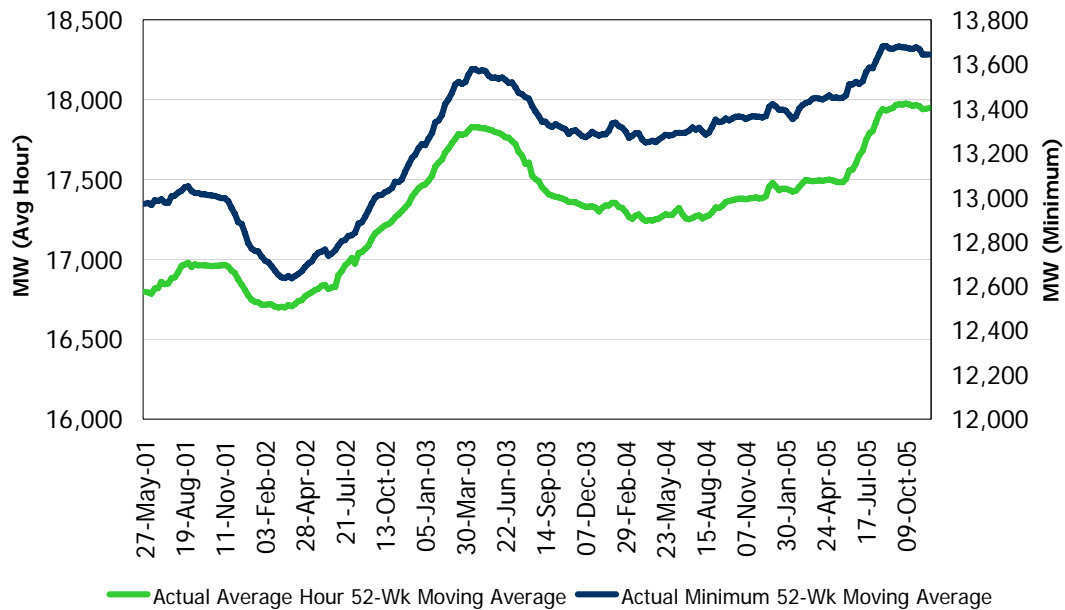


Table 2.2 shows the weekly energy demand for the past twelve months. The table has the actual and weather-corrected demand for each week. If the weather correction is positive it means that the weather was milder than normal. As well, the table notes any item of significance for the week.

Table 2.2: Actual and Weather Corrected Weekly Energy Demand

Week Ending	Actual Energy (GWh)	Weather Corrected Energy (GWh)	Weather Correction (GWh)	Week Number	Notes for Week	
05-Dec-04	3,096	3,160	64	49	All-Time Winter Peak, Christmas & Boxing Day New Years Day	
12-Dec-04	3,170	3,213	43	50		
19-Dec-04	3,258	3,180	-77	51		
26-Dec-04	3,229	3,098	-131	52		
02-Jan-05	2,906	2,970	64	53		
09-Jan-05	3,186	3,228	42	1		
16-Jan-05	3,215	3,312	97	2		
23-Jan-05	3,529	3,357	-172	3		All-Time Weekend Peak
30-Jan-05	3,422	3,339	-83	4		
06-Feb-05	3,164	3,297	133	5		
13-Feb-05	3,140	3,246	106	6		
20-Feb-05	3,213	3,229	16	7		5% Voltage Reduction April 7
27-Feb-05	3,226	3,135	-91	8		
06-Mar-05	3,169	3,151	-18	9		
13-Mar-05	3,206	3,117	-89	10		
20-Mar-05	3,041	3,038	-3	11		
27-Mar-05	2,884	2,908	25	12		
03-Apr-05	2,869	2,925	56	13		
10-Apr-05	2,772	2,898	127	14	Victoria Day	
17-Apr-05	2,706	2,795	89	15		
24-Apr-05	2,738	2,756	18	16		
01-May-05	2,756	2,688	-68	17		
08-May-05	2,662	2,664	1	18		
15-May-05	2,676	2,688	12	19		
22-May-05	2,637	2,652	14	20		
29-May-05	2,617	2,641	24	21		

(Table 2.2 continued)

Week Ending	Actual Energy (GWh)	Weather Corrected Energy (GWh)	Weather Correction (GWh)	Week Number	Notes for Week
05-Jun-05	2,827	2,737	-90	22	
12-Jun-05	3,348	2,943	-405	23	
19-Jun-05	2,964	2,878	-86	24	
26-Jun-05	3,090	2,969	-122	25	Power Warning June 24
03-Jul-05	3,207	2,998	-209	26	Power Warning June 28-29, Canada Day
10-Jul-05	3,050	2,936	-114	27	
17-Jul-05	3,486	3,128	-357	28	All-Time Peak Demand
24-Jul-05	3,353	3,121	-232	29	Power Warning July 18-21
31-Jul-05	3,069	3,058	-11	30	
07-Aug-05	3,312	3,075	-238	31	Power Warning & 5% Voltage Reduction August 3-4
14-Aug-05	3,309	3,113	-196	32	Power Warning August 9-10
21-Aug-05	3,051	3,030	-21	33	
28-Aug-05	2,968	2,955	-13	34	
04-Sep-05	3,016	2,977	-39	35	
11-Sep-05	2,901	2,870	-31	36	Labour Day
18-Sep-05	3,058	2,896	-163	37	
25-Sep-05	2,916	2,851	-65	38	
02-Oct-05	2,772	2,792	20	39	
09-Oct-05	2,805	2,721	-85	40	All-Time October peak
16-Oct-05	2,660	2,706	46	41	Thanksgiving
23-Oct-05	2,757	2,747	-10	42	
30-Oct-05	2,838	2,794	-44	43	
06-Nov-05	2,780	2,891	111	44	
13-Nov-05	2,809	2,867	58	45	Remembrance Day
20-Nov-05	2,910	2,905	-4	46	
27-Nov-05	3,061	2,923	-138	47	All-Time November peak

### 2.3 Historical Peak Demand

Peak demands are heavily influenced by weather. However, they are tied to economic activity. Of the 570 weekly peaks since 1995 only one occurred on a Saturday and two occurred on a Sunday. In all three instances, the temperature driven peak demands were much lower than if they would have occurred on a weekday. A weekly peak has never occurred on a holiday.

Figure 2.3: Weekly Winter Peak Days – Demand and Temperature

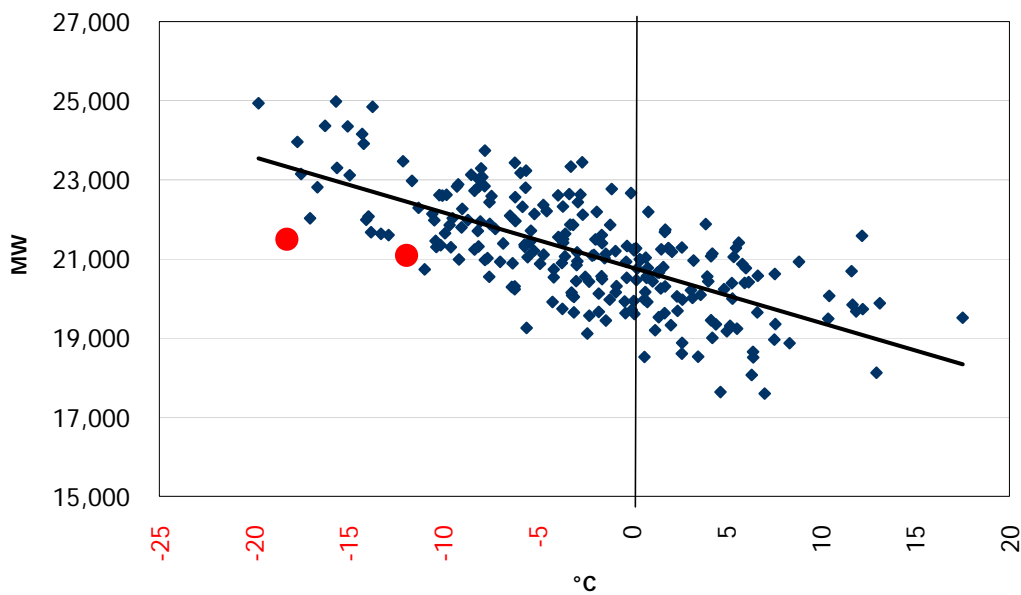


Figure 2.3 shows the weekly winter peak days' temperature and demand for the period 1995-present. The large red dots indicate the two occasions (during the winter) where the

weekly peak occurred on a weekend. The graph shows that given the temperature the demand was lighter than usual. This is the economic impact of the weekend.

Figure 2.4 displays the 52-week moving average of both actual and weather-corrected peak demands. The profile is similar to that of the energy demand with the high-point being the summer/fall of 2005.

Figure 2.4: Peak Demand – 52-Week Moving Average

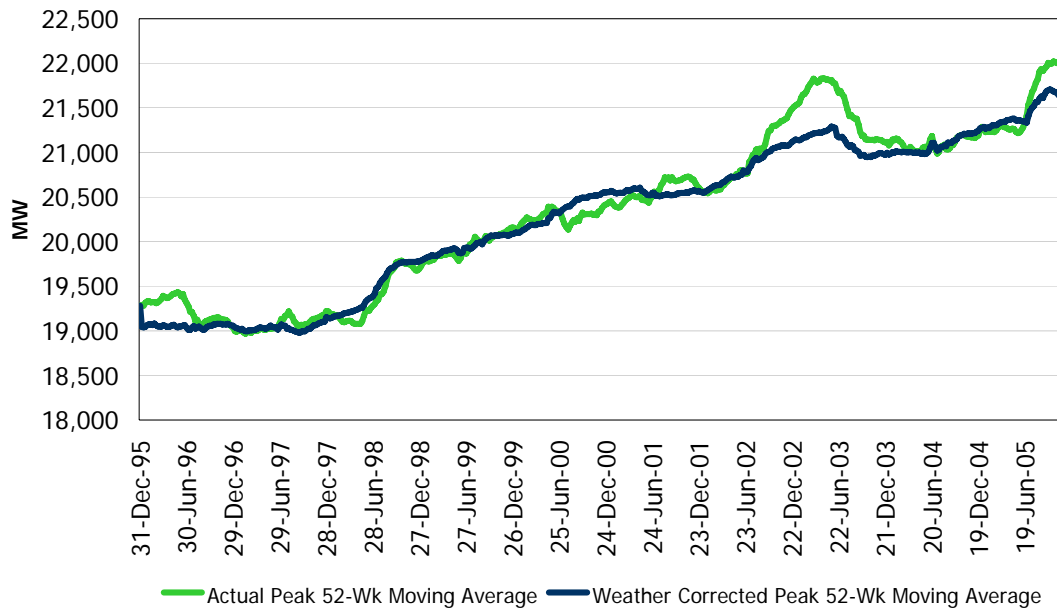


Table 2.3 contains the actual and weather-corrected weekly peak demands for the past 12 months. The table shows the daily afternoon maximum temperature for both the actual peak day and the Normal peak day (for Toronto).

Table 2.3: Actual and Weather Corrected Weekly Peak Demand

Week Ending	Week Number	Peak Day	Actual Peak (MW)	Weather Corrected Peak (MW)	Actual Peak Day Temperature (°C)	Normal Peak Day Temperature (°C)
05-Dec-04	49	03-Dec-04	22,118	22,480	-0.6	-3.1
12-Dec-04	50	06-Dec-04	23,445	23,646	-1.7	-3.9
19-Dec-04	51	14-Dec-04	23,431	23,211	-4.9	-4.7
26-Dec-04	52	20-Dec-04	24,979	23,787	-12.3	-4.8
02-Jan-05	53	27-Dec-04	21,348	21,391	-8.5	-4.8
09-Jan-05	1	06-Jan-05	23,233	23,668	-2.7	-6.2
16-Jan-05	2	11-Jan-05	22,640	22,948	-1.6	-7.6
23-Jan-05	3	18-Jan-05	24,362	23,572	-14.5	-14.7
30-Jan-05	4	27-Jan-05	24,353	23,993	-14.6	-12.0
06-Feb-05	5	31-Jan-05	22,629	23,732	-1.5	-7.5
13-Feb-05	6	09-Feb-05	22,322	22,990	-3.9	-6.3
20-Feb-05	7	18-Feb-05	22,269	22,295	-9.3	-6.1
27-Feb-05	8	24-Feb-05	22,321	22,184	-5.7	-6.0
06-Mar-05	9	28-Feb-05	22,187	22,240	1.8	-4.3
13-Mar-05	10	08-Mar-05	22,724	22,145	-8.5	-4.9
20-Mar-05	11	14-Mar-05	20,975	21,319	-0.8	-3.3
27-Mar-05	12	23-Mar-05	20,777	20,931	1.5	-2.1
03-Apr-05	13	28-Mar-05	19,649	19,928	6.6	1.2

(Table 2.3 continued)

Week Ending	Week Number	Peak Day	Actual Peak (MW)	Weather Corrected Peak (MW)	Actual Peak Day Temperature (°C)	Normal Peak Day Temperature (°C)
10-Apr-05	14	04-Apr-05	19,343	20,583	10.9	0.2
17-Apr-05	15	11-Apr-05	18,695	19,286	7.9	5.3
24-Apr-05	16	20-Apr-05	18,534	18,974	16.2	3.4
01-May-05	17	25-Apr-05	19,336	19,183	6.5	7.1
08-May-05	18	02-May-05	18,341	18,242	8.6	8.6
15-May-05	19	11-May-05	18,623	18,640	22.6	11.4
22-May-05	20	16-May-05	18,362	19,038	11.0	23.4
29-May-05	21	26-May-05	18,779	19,532	24.2	24.8
05-Jun-05	22	02-Jun-05	20,001	18,943	26.0	27.2
12-Jun-05	23	10-Jun-05	24,793	21,120	30.5	27.9
19-Jun-05	24	14-Jun-05	24,995	23,259	29.7	30.7
26-Jun-05	25	24-Jun-05	23,802	21,845	34.0	31.7
03-Jul-05	26	27-Jun-05	26,157	23,975	31.6	29.8
10-Jul-05	27	04-Jul-05	23,463	23,214	29.5	28.6
17-Jul-05	28	13-Jul-05	26,160	24,609	34.6	29.5
24-Jul-05	29	18-Jul-05	25,857	24,405	33.3	28.7
31-Jul-05	30	25-Jul-05	25,068	23,644	33.8	29.3
07-Aug-05	31	04-Aug-05	25,050	22,772	32.8	28.3
14-Aug-05	32	09-Aug-05	25,816	24,422	32.9	31.6
21-Aug-05	33	15-Aug-05	22,134	22,381	27.6	29.6
28-Aug-05	34	26-Aug-05	21,485	20,649	27.4	28.0
04-Sep-05	35	29-Aug-05	22,913	22,747	28.4	29.3
11-Sep-05	36	07-Sep-05	22,213	21,901	27.5	26.1
18-Sep-05	37	13-Sep-05	23,914	21,114	30.1	29.6
25-Sep-05	38	21-Sep-05	21,282	20,582	28.5	26.1
02-Oct-05	39	26-Sep-05	20,064	19,894	22.3	18.6
09-Oct-05	40	04-Oct-05	20,752	19,331	25.8	10.1
16-Oct-05	41	12-Oct-05	19,163	19,417	13.2	7.8
23-Oct-05	42	20-Oct-05	19,211	19,101	11.9	7.8
30-Oct-05	43	26-Oct-05	19,960	19,537	8.1	6.8
06-Nov-05	44	02-Nov-05	20,065	20,815	12.3	4.0
13-Nov-05	45	10-Nov-05	20,390	20,685	5.7	3.8
20-Nov-05	46	17-Nov-05	21,279	21,081	2.7	0.4
27-Nov-05	47	24-Nov-05	22,564	21,727	-6.3	-0.3

## 2.4 Percent of Time or Load Duration

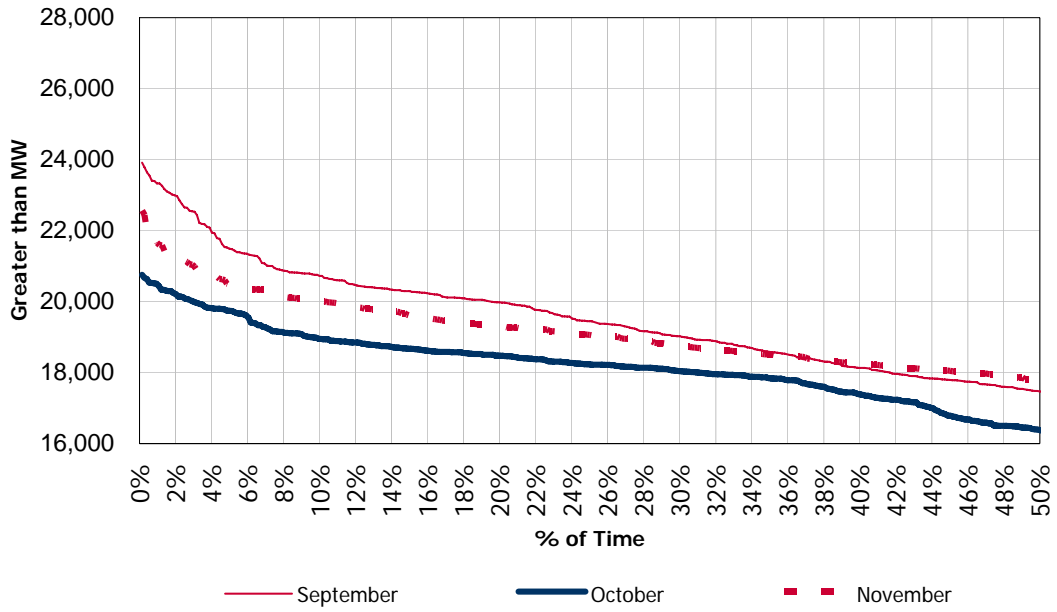
Figure 2.5 displays the percent of time that the hourly demand on the system exceeds a certain level. The graph shows the percent of hours for the months of September, October and November 2005. All curves are a product of the weather experienced in those months.

September has the highest load duration curve as a the result of the warm weather. The warm weather has a positive impact on demand as September still has significant cooling load. October is the lowest of the three curves. October has significant but intermittent heating load as it would have periods where the load is neither heating nor cooling. Since October was warmer than normal, it reduced the amount of heating load required. November has a higher curve than October as the colder weather makes the heating load more consistent. Since the temperature was warmer than normal this had a negative impact on demand.

The graphic presentation shows the difference between the duration curves for the three months. As a cooling month, September has a higher “top end” but falls off as the temperatures get into the neither heating nor cooling range. Since November is a more consistent heating month it doesn’t register the high values of September, but doesn’t fall off nearly so much. The curve for October is lowest as it spends so many hours being neither cooling nor heating.



Figure 2.5: Load Duration Curves - September, October and November 2005



- End of Section -

This page intentionally left blank.

## 3.0 Forecasting Process and Assumptions

A detailed description of the forecasting methodology can be found in the document entitled “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\\_2005dec.pdf](http://www.ieso.ca/imoweb/pubs/marketReports/Methodology_RTAA_2005dec.pdf)).

The forecast of electricity demand requires inputs and/or assumptions. This section looks at each of the class of drivers.

### 3.1 Calendar Drivers for Forecast

Calendar variables are addressed in the Methodology document. Essentially, forecasting the calendar impacts – days of the week, holidays, sunrise and sunset – are pretty straightforward. This Outlook we had to incorporate the changes to Daylight Savings Time starting in March 2007.

### 3.2 Economic Drivers for Forecast

To produce an energy and peak demand forecast, an economic forecast of various drivers is required. We use a consensus of four major, publicly available provincial forecasts to generate the economic drivers used in the demand forecast. Table 3.1 summarizes the key economic drivers for the energy and peak demand forecast. The Ontario growth index is a weighting of the economic drivers as they relate to electricity demand. The 18-Month outlook only considers the median economic growth scenario. High and low growth scenarios are used only in longer-term assessments.

**Table 3.1: Forecast of Ontario Economic Drivers**

Year	Ontario Employment		Ontario Housing Starts		Ontario Growth Index	
	Thousands	Annual Growth (%)	Thousands	Annual Growth (%)	Index	Annual Growth (%)
1995	5,091	2.0	31.9	-23.3	1.025	1.42
1996	5,152	1.2	39.5	23.9	1.035	1.04
1997	5,269	2.3	50.0	26.5	1.053	1.70
1998	5,438	3.2	50.1	0.2	1.077	2.23
1999	5,618	3.3	62.9	25.6	1.102	2.33
2000	5,797	3.2	67.4	7.1	1.128	2.39
2001	5,923	2.2	70.3	4.2	1.150	1.91
2002	6,018	1.6	79.6	13.3	1.169	1.69
2003	6,199	3.0	80.9	1.7	1.197	2.43
2004	6,309	1.8	79.9	-1.3	1.219	1.80
2005 (f)	6,367	0.9	69.7	-12.8	1.235	1.31
2006 (f)	6,437	1.1	64.5	-7.4	1.251	1.28
2007 (f)	6,508	1.1	64.5	0.0	1.266	1.25

### 3.3 Weather Drivers for Forecast

Since forecasting long-term weather is not possible, weather scenarios are generated based on historical data. We use weekly normalized weather in three weather scenarios - Normal, Normal plus 1 Load Forecast Uncertainty and Extreme in assessing the adequacy of the system. Load

Forecast Uncertainty (LFU) represents one standard deviation in the weather elements underpinning the peak demand.

Weekly normalized weather is created using the following steps:

- The daily history of weather is grouped into weeks within each year.
- For each day a "weather factor" is calculated based on its weather conditions (temperature, wind speed, cloud cover and humidity).
- The daily weather factors within each week are sorted from highest to lowest.
- The highest ranked day of each Week 1 from the years of history are combined to create the first day of Week 1 of the weather scenario.
- The second highest ranked day of each Week 1 from the years of history are combined to create the second day of Week 1 of the weather scenario.
- The process is repeated until all days of all weeks have been created for the weather scenario.

The way in which the days are combined is determined by the scenario. Normal weather is the day with the median weather factor from the last 31 years. Extreme weather is the day with the maximum weather factor of the sorted days.

Load Forecast Uncertainty (LFU) - a measure of demand fluctuations due to weather variability - is a critical part of the analysis. In conjunction with the Normal weather forecast, LFU is valuable in determining a distribution of potential outcomes under various weather conditions. It should be recognized that for resource adequacy assessments, the Normal weather forecast combined with LFU is used to consider a full range of peak demands that can occur under various weather conditions with varying probability of occurrence.

The Extreme weather scenario is valuable for studying situations where the system is under duress. The Extreme weather scenario is valuable when examining peak conditions but is unrealistic from an energy demand standpoint, as severe weather conditions do not persist over a long time period.

Most of the analysis in the Outlook documents uses weekly normalization. Seasonally normalized weather is used to produce the Expected seasonal demand. Seasonal Normal weather is constructed using the same approach as weekly Normal weather. Each historical day's "weather impact" is instead sorted within each season. The seasonal Normal weather underlying the Expected summer peak would be generated by selecting the median of the highest weather impact day of each of the last 31 summers.

At times, historical weather from selected years is used to generate demand forecasts for study. In these cases, the order of the day's weather is re-arranged within the week so that peak-eliciting weather does not fall on weekends or holidays. This makes year-over-year comparisons less complicated. Historic weather years are used to develop seasonal load duration curves. Load duration curves provide a third dimension to the demand forecast - in addition to peak and energy demand.

Table 3.2 has information about the Weekly Normal and Extreme weather scenarios. For each week, the table shows the historical weather used for the peak day of that week. The table shows the daily high (temperature) and wind speed. Not shown but used in forecasting demand are humidity and cloud cover. We use six weather stations in the demand models – the data in the

table below is for Toronto. The weather scenarios were updated for data through the end of October 2005.

**Table 3.2: Normal and Extreme Weather**

Week	Normal Peak Date	Normal Temperature (°C)	Normal Wind Speed (km/hr)	Extreme Peak Date	Extreme Temperature (°C)	Extreme Wind Speed (km/hr)
1	31-Dec-90	-6.2	9.7	10-Jan-82	-15.8	41.3
2	11-Jan-96	-7.6	4.0	15-Jan-94	-21.4	19.5
3	17-Jan-03	-14.7	23.3	19-Jan-94	-19.0	35.7
4	30-Jan-93	-12.0	8.0	23-Jan-76	-18.3	10.7
5	04-Feb-89	-7.5	4.3	05-Feb-95	-17.6	40.7
6	07-Feb-86	-6.3	41.2	06-Feb-95	-15.4	18.7
7	13-Feb-95	-6.1	31.5	17-Feb-79	-19.4	14.7
8	19-Feb-79	-6.0	6.8	25-Feb-90	-15.9	27.8
9	28-Feb-01	-4.3	27.3	29-Feb-80	-14.4	35.0
10	07-Mar-78	-4.9	19.8	03-Mar-03	-14.3	6.3
11	08-Mar-76	-3.3	14.7	12-Mar-84	-11.3	7.0
12	21-Mar-98	-2.1	22.5	20-Mar-86	-11.1	29.2
13	02-Apr-78	1.2	19.8	25-Mar-02	-3.5	15.2
14	08-Apr-00	0.2	38.2	06-Apr-82	-7.4	38.0
15	17-Apr-83	5.3	17.2	07-Apr-03	-2.0	35.5
16	20-Apr-78	3.4	26.7	17-Apr-02	28.2	22.0
17	27-Apr-88	7.1	27.8	27-Apr-90	29.4	19.8
18	27-Apr-98	8.6	24.8	06-May-00	30.1	28.7
19	11-May-90	11.4	34.7	09-May-79	29.7	21.5
20	12-May-92	23.4	16.3	19-May-96	28.8	38.8
21	26-May-89	24.8	30.3	23-May-75	27.8	7.3
22	30-May-94	27.2	23.0	29-May-87	32.0	18.2
23	11-Jun-78	27.9	28.7	07-Jun-99	32.9	22.2
24	13-Jun-92	30.7	26.3	18-Jun-94	35.2	9.8
25	19-Jun-87	31.7	9.7	19-Jun-95	35.1	20.2
26	03-Jul-93	29.8	11.8	04-Jul-99	34.4	23.3
27	08-Jul-03	28.6	29.2	02-Jul-02	34.3	21.7
28	04-Jul-05	29.5	17.7	14-Jul-95	36.7	17.3
29	22-Jul-01	28.7	15.0	20-Jul-77	33.8	16.3
30	25-Jul-86	29.3	14.5	30-Jul-99	34.4	18.0
31	01-Aug-80	28.3	21.2	01-Aug-75	34.4	17.5
32	13-Aug-78	31.6	10.8	07-Aug-01	35.3	28.0
33	13-Aug-91	29.6	10.7	15-Aug-95	31.9	9.2
34	24-Aug-80	28.0	9.0	28-Aug-77	30.6	25.3
35	30-Aug-79	29.3	22.3	28-Aug-73	35.6	26.7
36	08-Sep-91	26.1	11.0	03-Sep-73	32.8	9.3
37	11-Sep-78	29.6	19.3	09-Sep-02	33.5	14.8
38	20-Sep-94	26.1	14.0	16-Sep-91	31.2	30.3
39	27-Sep-83	18.6	10.3	22-Sep-70	26.7	21.3
40	05-Oct-88	10.1	20.0	01-Oct-02	28.8	34.2
41	09-Oct-90	7.8	19.5	12-Oct-88	4.6	23.5
42	17-Oct-75	7.8	15.2	20-Oct-74	2.2	27.3
43	28-Oct-05	6.8	10.7	22-Oct-79	24.6	25.3
44	30-Oct-92	4.0	10.2	07-Nov-93	2.6	26.0
45	11-Nov-79	3.8	15.8	12-Nov-95	0.5	34.3
46	11-Nov-85	0.4	17.7	13-Nov-86	-4.2	11.5
47	22-Nov-81	-0.3	22.5	21-Nov-87	-8.0	22.7
48	30-Nov-86	-2.0	13.7	03-Dec-89	-9.2	34.8
49	06-Dec-03	-3.1	5.5	11-Dec-77	-14.1	8.5
50	11-Dec-78	-3.9	5.5	14-Dec-89	-10.1	14.7
51	17-Dec-02	-4.7	12.3	26-Dec-93	-17.0	33.0
52	25-Dec-96	-4.8	21.0	27-Dec-93	-9.5	22.5

### 3.4 Conservation and Demand Response

Conservation has occurred throughout the history used to forecast energy and peak demand. Over time, less efficient appliances are replaced by more efficient ones, homes and buildings with better insulation replace older structures and businesses alter their operations to reduce their exposure to higher electricity prices. All of these have been occurring naturally and as such are reflected in the demand forecast. Higher levels of conservation or demand management are

possible but require more direct intervention in the market through incentives, standards or other mechanisms. The results of these initiatives can be substantial. However, the ability to quantify the demand reductions requires detailed information on the programs, tools or standards. Therefore, the demand forecast does contain an element of conservation – which is growing through time – but does not take into account future programs or goals.

- End of Section -

## 4.0 Demand Forecast

This section presents information on the total system, more detailed information for the individual zones can be found in Appendices A and B.

The weekly energy demand forecast is illustrated in Figure 4.1. Evident in the graph is the seasonal pattern in energy demand. Winter energy demand is higher and longer than the other seasons. The week of Christmas vacation almost bisects the winter demand. Summer energy demand is much shorter and smaller than the winter season. Note that the energy demand for the summer of 2006 is lower than that of 2005 but higher than 2004.

**Figure 4.1: Weekly Energy Demand – History and Forecast**

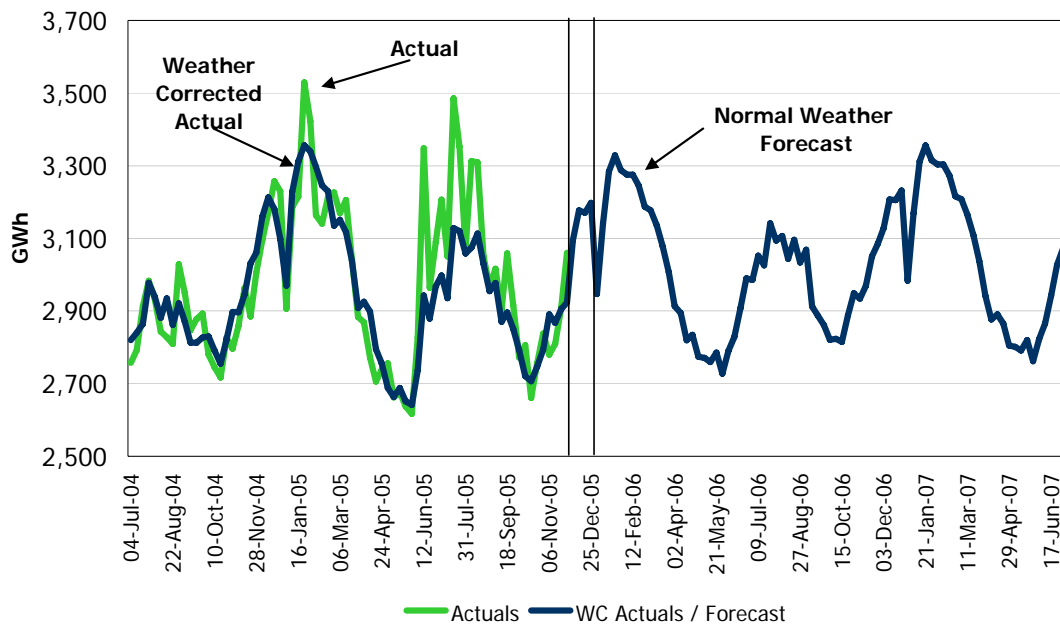


Figure 4.2 shows the range of weekly peak demands. The bottom of the peak demand range is generated via a Mild weather scenario. The Mild weather scenario is the opposite of the Extreme weather scenario, as it is based on warm temperatures in the winter and cool summer temperatures. The middle of the range (the heavy line) represents the Normal weather peak demand. The top of the range is generated by using the Extreme weather scenario. In general, it is the top half of the range that is the thrust of the analysis in the resource and transmission assessments.

Also in the chart are the actual and weather-corrected peak demands. The winter peak of December 2004 and the summer peak of July 2005 are evident in the graph.

The resource adequacy assessments take into consideration the full range of possible weather conditions on a probabilistic basis for each week. Allowance for the probability of demand being higher than that under Normal weather is made in the calculation of the required reserve.

Figure 4.2: Weekly Peak Demand Forecast – Weather Scenarios

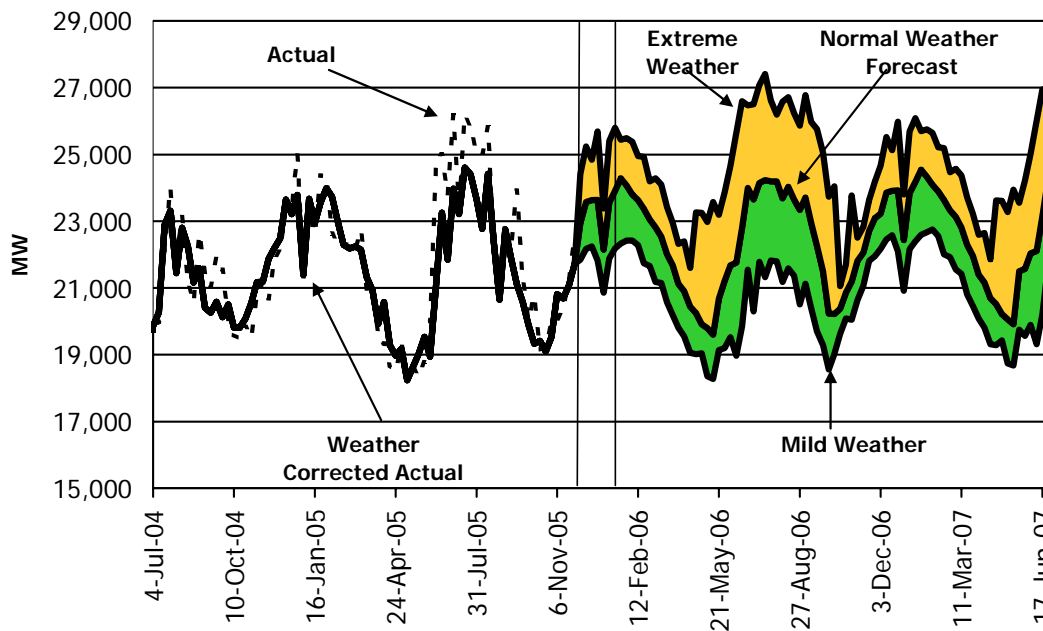


Table 4.1 contains the weekly forecast of energy and peak demand. As well, the table includes the week number and the Normal weather peak day temperature for Toronto. The table has the weekly peak demands for each of the Normal, Normal + 1 LFU and Extreme weather scenarios. The last column of the table has the weekly Normal weather energy demand forecast.

Demand in the table is prior to any price response as price responsive demand is treated as a resource in the reliability assessment and therefore is included in the demand forecast. It is reasonable to assume that some level of price responsive demand would reduce consumption in an extreme weather event. Under those circumstances we might see actual demand at a level lower than expected as loads are dispatched off and other price responsive demands curb their consumption.

Table 4.1: Forecasted Ontario Weekly Demand

Week Number	Week Ending	Normal Peak Day Temperature (°C)	Normal Peak (MW)	Normal + 1 LFU Peak (MW)	Extreme Peak (MW)	Normal Energy (GWh)
1	08-Jan-06	-6.2	23,558	24,396	25,403	3,140
2	15-Jan-06	-7.6	23,914	24,777	25,802	3,284
3	22-Jan-06	-14.7	24,285	25,262	25,438	3,328
4	29-Jan-06	-12.0	24,073	24,899	25,486	3,287
5	05-Feb-06	-7.5	23,801	24,492	25,376	3,276
6	12-Feb-06	-6.3	23,630	24,303	24,949	3,276
7	19-Feb-06	-6.1	23,373	24,187	24,924	3,246
8	26-Feb-06	-6.0	23,055	23,753	24,191	3,187
9	05-Mar-06	-4.3	22,821	23,642	24,288	3,177
10	12-Mar-06	-4.9	22,536	23,230	24,099	3,135
11	19-Mar-06	-3.3	22,019	22,744	23,417	3,078
12	26-Mar-06	-2.1	21,682	22,433	22,943	3,007
13	02-Apr-06	1.2	21,126	21,786	22,320	2,913



(Table 4.1 continued)

Week Number	Week Ending	Normal Peak Day Temperature (°C)	Normal Peak (MW)	Normal + 1 LFU Peak (MW)	Extreme Peak (MW)	Normal Energy (GWh)
14	09-Apr-06	0.2	20,910	21,590	22,394	2,894
15	16-Apr-06	5.3	20,436	21,126	21,603	2,819
16	23-Apr-06	3.4	20,255	20,872	23,267	2,834
17	30-Apr-06	7.1	19,914	20,348	23,249	2,774
18	07-May-06	8.6	19,802	20,524	22,973	2,771
19	14-May-06	11.4	19,605	20,269	23,574	2,759
20	21-May-06	23.4	20,685	21,459	23,196	2,785
21	28-May-06	24.8	21,212	22,219	23,863	2,727
22	04-Jun-06	27.2	21,678	22,753	24,653	2,790
23	11-Jun-06	27.9	21,757	23,149	25,643	2,829
24	18-Jun-06	30.7	22,806	24,280	26,596	2,907
25	25-Jun-06	31.7	23,999	25,223	26,470	2,990
26	02-Jul-06	29.8	23,654	25,330	26,504	2,986
27	09-Jul-06	28.6	24,149	25,334	27,083	3,052
28	16-Jul-06	29.5	24,232	25,688	27,407	3,026
29	23-Jul-06	28.7	24,197	25,386	26,615	3,141
30	30-Jul-06	29.3	24,194	25,393	26,187	3,094
31	06-Aug-06	28.3	23,685	24,939	26,581	3,107
32	13-Aug-06	31.6	24,027	25,250	26,713	3,044
33	20-Aug-06	29.6	23,651	24,794	26,236	3,096
34	27-Aug-06	28.0	23,344	24,761	25,865	3,034
35	03-Sep-06	29.3	23,709	25,000	26,779	3,069
36	10-Sep-06	26.1	22,952	24,231	25,972	2,912
37	17-Sep-06	29.6	22,267	23,548	25,762	2,887
38	24-Sep-06	26.1	21,503	22,614	25,054	2,861
39	01-Oct-06	18.6	20,238	21,078	23,729	2,821
40	08-Oct-06	10.1	20,218	20,814	24,046	2,823
41	15-Oct-06	7.8	20,378	20,752	21,058	2,815
42	22-Oct-06	7.8	20,860	21,245	21,707	2,888
43	29-Oct-06	6.8	21,194	21,765	23,771	2,949
44	05-Nov-06	4.0	21,810	22,396	22,506	2,934
45	12-Nov-06	3.8	22,064	22,561	22,835	2,969
46	19-Nov-06	0.4	22,714	23,164	23,630	3,050
47	26-Nov-06	-0.3	23,094	23,666	24,184	3,085
48	03-Dec-06	-2.0	23,222	23,745	24,672	3,129
49	10-Dec-06	-3.1	23,858	24,559	25,522	3,207
50	17-Dec-06	-3.9	23,912	24,580	25,131	3,205
51	24-Dec-06	-4.7	23,924	24,837	25,977	3,231
52	31-Dec-06	-4.8	22,434	23,193	23,806	2,983
1	07-Jan-07	-6.2	23,844	24,682	25,689	3,169
2	14-Jan-07	-7.6	24,175	25,063	26,088	3,312
3	21-Jan-07	-14.7	24,547	25,524	25,700	3,356
4	28-Jan-07	-12.0	24,335	25,169	25,756	3,315
5	04-Feb-07	-7.5	24,089	24,758	25,642	3,304
6	11-Feb-07	-6.3	23,900	24,573	25,218	3,303
7	18-Feb-07	-6.1	23,639	24,453	25,190	3,273
8	25-Feb-07	-6.0	23,325	24,027	24,464	3,216
9	04-Mar-07	-4.3	23,132	23,919	24,565	3,208
10	11-Mar-07	-4.9	22,813	23,506	24,375	3,165
11	18-Mar-07	-3.3	22,295	23,039	23,712	3,109
12	25-Mar-07	-2.1	21,958	22,710	23,220	3,037
13	01-Apr-07	1.2	21,402	22,063	22,597	2,942
14	08-Apr-07	0.2	21,166	21,847	22,651	2,877
15	15-Apr-07	5.3	20,693	21,383	21,861	2,891
16	22-Apr-07	3.4	20,519	21,137	23,627	2,865
17	29-Apr-07	7.1	20,220	20,612	23,608	2,805
18	06-May-07	8.6	20,066	20,730	23,275	2,801
19	13-May-07	11.4	19,918	20,540	23,940	2,791
20	20-May-07	23.4	21,500	22,375	23,553	2,820
21	27-May-07	24.8	21,571	22,576	24,220	2,762
22	03-Jun-07	27.2	22,037	23,110	25,010	2,822
23	10-Jun-07	27.9	22,110	23,506	26,000	2,866
24	17-Jun-07	30.7	23,159	24,633	26,950	2,943
25	24-Jun-07	31.7	24,286	25,578	26,824	3,027
26	01-Jul-07	29.8	24,188	25,863	27,037	3,073

### 4.1 Load Duration Curves - Winter 2006

This section looks at load levels under various weather scenarios for different seasons of the year. First is the winter of 2006 which spans the period from January 1<sup>st</sup> to March 31<sup>st</sup>.

The Normal, Normal + 1 LFU and Extreme weather scenarios are useful in studying peak demands. However, as with energy demand, the Normal + 1 LFU and Extreme weather scenarios are not well suited for duration curves. This is due to the fact that the likelihood of observing consistent deviations from the mean is very unlikely. For this reason, three scenarios were generated by using actual weather from 1976-77, 1989-90 and 1993-94. In general, 1989-90 was slightly colder than normal, while 1976-77 and 1994-94 were significantly colder than normal winters.

Figure 4.3 shows the highest 5% of hourly demand under the Normal, 1976-77, 1989-90 and 1993-94 weather scenarios for the upcoming winter of 2006 for the period January to March.

**Figure 4.3: Load Duration Curve - Winter 2006**

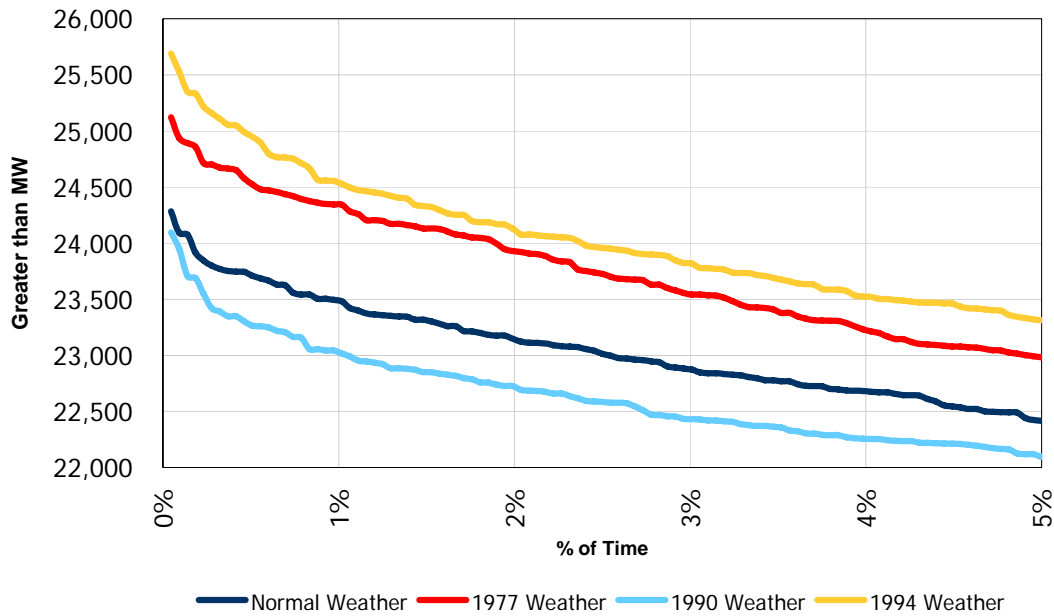


Table 4.2 shows some of the summary statistics for the winter of 2006 under the various scenarios. The table has the maximum, minimum and average demand for the winter. As well, it shows the demand level at the 90<sup>th</sup> percentile and the percent and number of hours above 23,000 MW. It is important to note that there is an upward bias in the numbers as peak eliciting weather is always placed mid-week to avoid holidays and weekends. In reality, the coldest weather of any week has a 2 in 7 chance of occurring on a weekend and therefore having a lower demand impact.

**Table 4.2: Summary Statistics for Winter 2006**

Winter 2006 (January 1st to March 31st)	Normal Weather	1990 Weather	1977 Weather	1994 Weather
Maximum Hour (MW)	24,285	24,094	25,123	25,691
Average Hour (MW)	18,985	18,568	19,108	19,397
Minimum Hour (MW)	13,419	12,954	12,884	13,023
Standard Deviation (MW)	2,334	2,401	2,526	2,537
90th Percentile (MW)	21,826	21,488	22,382	22,578
Percent above 23,000 MW	2.5%	1.1%	4.9%	7.2%
# of Hours Above 23,000 MW	54	24	106	156

## 4.2 Load Duration Curves – Summer 2006

For the purpose of this forecast analysis, the summer includes the month of September and spans the period June 1<sup>st</sup>, 2006 to September 30<sup>th</sup>, 2006. As with the winter analysis, the Normal + 1 LFU and Extreme weather scenarios are more valuable in analyzing peak demand than in percent of time analysis.

Figure 4.4 shows the highest 5% of hourly demand under the Normal, 1990, 1999 and 2002 weather scenarios. These years were chosen as 1990 represents a fairly typical summer, whereas 1999 and 2002 are summers that were hot.

**Figure 4.4: Load Duration Curve - Summer 2006**

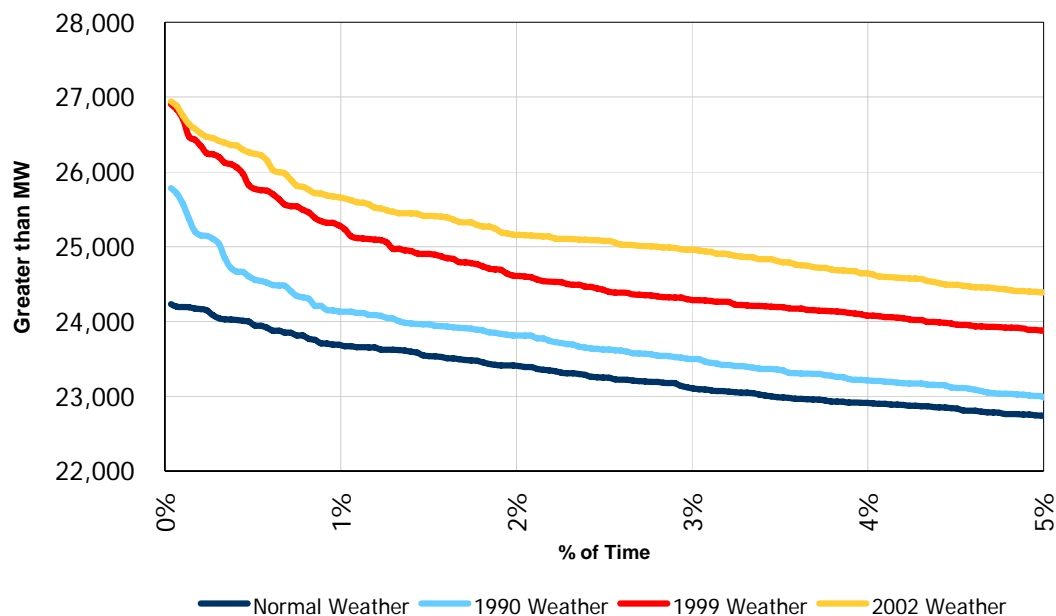


Table 4.3 shows the summary statistics for the summer of 2006 under the various scenarios. The table has the maximum, minimum and average demand for the summer. As well, it shows the demand level at the 90<sup>th</sup> percentile and the percent and number of hours above 23,000 MW.

**Table 4.3: Summary Statistics for Summer 2006**

Summer 2006 (June 1st to September 30th)	Normal Weather	1990 Weather	1999 Weather	2002 Weather
Maximum Hour (MW)	24,232	25,781	26,903	26,941
Average Hour (MW)	17,770	17,819	18,280	18,474
Minimum Hour (MW)	11,608	11,691	11,486	11,343
Standard Deviation (MW)	3,190	3,235	3,435	3,561
90th Percentile (MW)	22,088	22,201	23,087	23,377
Percent above 23,000 MW	3.5%	5.0%	10.5%	12.7%
# of Hours Above 23,000 MW	102	146	307	372

### 4.3 Comparison of Current and Previous Forecast

This section compares the current forecast with that released September 27, 2005.

Without any significant changes to the inputs or the models, the results are very similar to the previous forecast.

Table 4.4 shows the difference between the current and previous forecast for the seasons common to both forecasts.

**Table 4.4: Current versus Previous Forecast**

Season	Energy Demand	Normal Weather Peak Demand	Extreme Weather Peak Demand
	(GWh)	(MW)	(MW)
Winter 2005-2006	67,329	24,285	25,802
Difference (Current - Previous)	-280	13	11
Spring 2006	24,352	21,678	24,653
Difference (Current - Previous)	-38	-7	4
Summer 2006	39,717	24,232	27,407
Difference (Current - Previous)	78	-2	29
Fall 2006	25,033	22,952	26,367
Difference (Current - Previous)	78	284	10
Winter 2007	68,262	24,547	26,088
Difference (Current - Previous)	128	21	19

Notes for Table 4.4 – Actuals & weather corrected actuals are included for November in the Winter 2005-2006.

- End of Section -

## Appendix A Energy Demand Forecast Details

**Table A1: Weekly Zonal Energy Forecast, Normal Weather**

Week Ending	Weekly Energy (GWh)										
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	Total System
08-Jan-06	158	260	233	179	240	1,002	110	9	610	340	3,140
15-Jan-06	161	270	250	180	259	1,048	117	9	635	355	3,284
22-Jan-06	165	278	259	180	268	1,054	117	9	641	356	3,328
29-Jan-06	163	270	252	180	255	1,050	116	9	639	353	3,287
05-Feb-06	167	269	255	174	250	1,041	116	10	638	356	3,276
12-Feb-06	163	261	257	171	246	1,049	117	10	643	357	3,276
19-Feb-06	165	262	244	175	244	1,042	115	10	635	351	3,246
26-Feb-06	160	263	231	176	238	1,026	115	10	621	348	3,187
05-Mar-06	159	262	245	165	239	1,021	114	10	616	345	3,177
12-Mar-06	160	257	234	166	232	1,010	114	10	611	342	3,135
19-Mar-06	156	253	226	165	231	985	113	9	601	337	3,078
26-Mar-06	154	248	228	157	222	958	111	9	590	330	3,007
02-Apr-06	151	246	204	155	213	927	109	8	576	325	2,913
09-Apr-06	149	237	202	140	213	935	107	9	577	326	2,894
16-Apr-06	146	239	179	157	207	900	105	8	560	318	2,819
23-Apr-06	147	230	182	157	204	918	107	7	561	322	2,834
30-Apr-06	147	222	153	170	197	903	105	7	554	316	2,774
07-May-06	145	218	156	168	200	905	104	7	555	313	2,771
14-May-06	143	219	155	167	199	899	104	7	548	318	2,759
21-May-06	142	217	170	157	200	921	105	6	547	321	2,785
28-May-06	142	219	174	152	195	896	101	6	533	309	2,727
04-Jun-06	141	216	181	151	201	920	104	6	550	320	2,790
11-Jun-06	144	214	191	136	201	944	104	6	562	327	2,829
18-Jun-06	147	208	202	142	207	973	108	6	575	339	2,907
25-Jun-06	145	204	194	149	209	1,026	113	7	593	350	2,990
02-Jul-06	138	207	207	138	205	1,016	115	7	597	355	2,986
09-Jul-06	142	208	212	139	221	1,049	115	7	609	350	3,052
16-Jul-06	141	208	220	134	219	1,036	113	6	598	350	3,026
23-Jul-06	142	213	227	139	222	1,087	119	6	608	377	3,141
30-Jul-06	143	211	216	142	222	1,062	119	6	592	381	3,094
06-Aug-06	144	213	215	144	226	1,067	118	6	596	379	3,107
13-Aug-06	146	221	207	141	221	1,040	114	6	587	362	3,044
20-Aug-06	144	225	205	142	217	1,057	118	6	600	380	3,096
27-Aug-06	146	230	192	147	212	1,023	116	6	589	371	3,034
03-Sep-06	144	237	200	143	215	1,030	118	7	597	378	3,069
10-Sep-06	139	231	183	127	202	984	111	7	572	357	2,912
17-Sep-06	142	229	181	127	207	971	108	7	573	342	2,887
24-Sep-06	143	228	192	110	210	958	107	7	568	337	2,861
01-Oct-06	144	223	202	91	213	948	103	8	559	329	2,821

(Table A1 continued)

Week Ending	Weekly Energy (GWh)										
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	Total System
08-Oct-06	144	234	188	122	214	928	105	8	557	324	2,823
15-Oct-06	146	236	190	133	213	919	104	7	549	319	2,815
22-Oct-06	148	245	176	162	219	929	107	8	567	325	2,888
29-Oct-06	150	249	180	178	223	945	109	8	580	328	2,949
05-Nov-06	151	249	157	175	222	946	109	9	585	330	2,934
12-Nov-06	154	251	194	155	224	953	110	9	586	333	2,969
19-Nov-06	154	254	214	156	232	982	111	9	599	339	3,050
26-Nov-06	157	254	226	156	228	997	112	9	604	343	3,085
03-Dec-06	157	261	225	165	236	1,009	113	10	609	344	3,129
10-Dec-06	160	261	246	167	248	1,035	113	10	621	347	3,207
17-Dec-06	160	261	253	165	246	1,031	114	9	619	347	3,205
24-Dec-06	159	262	245	172	247	1,040	116	9	627	353	3,231
31-Dec-06	144	251	231	174	243	932	99	9	577	323	2,983
07-Jan-07	159	262	236	180	244	1,008	110	9	618	344	3,169
14-Jan-07	161	272	252	182	264	1,053	117	9	643	359	3,312
21-Jan-07	165	280	261	182	272	1,059	117	10	649	361	3,356
28-Jan-07	163	272	254	181	260	1,055	116	10	647	357	3,315
04-Feb-07	167	271	257	176	255	1,046	117	10	646	360	3,304
11-Feb-07	163	263	259	173	251	1,054	117	10	651	361	3,303
18-Feb-07	165	264	246	178	249	1,046	115	10	644	356	3,273
25-Feb-07	161	265	233	178	242	1,030	115	10	629	353	3,216
04-Mar-07	159	265	247	167	244	1,027	115	10	625	350	3,208
11-Mar-07	160	259	236	168	237	1,016	114	10	619	347	3,165
18-Mar-07	157	255	228	168	236	992	113	10	610	342	3,109
25-Mar-07	155	250	230	159	226	964	111	9	598	335	3,037
01-Apr-07	151	248	206	157	217	933	110	8	584	329	2,942
08-Apr-07	148	238	204	136	214	922	105	9	576	324	2,877
15-Apr-07	147	241	182	161	215	925	107	9	577	328	2,891
22-Apr-07	147	233	184	159	208	923	107	8	569	327	2,865
29-Apr-07	147	225	156	172	201	908	105	8	563	321	2,805
06-May-07	145	220	159	170	204	911	105	7	564	317	2,801
13-May-07	143	221	157	169	203	906	105	7	557	323	2,791
20-May-07	142	219	172	160	204	929	105	6	556	326	2,820
27-May-07	143	221	177	155	198	904	102	6	542	314	2,762
03-Jun-07	142	219	184	153	205	928	104	6	558	324	2,822
10-Jun-07	144	217	194	139	205	953	104	6	571	332	2,866
17-Jun-07	147	211	208	142	210	980	108	6	584	345	2,943
24-Jun-07	146	207	199	150	212	1,035	113	7	602	356	3,027
01-Jul-07	145	209	199	150	217	1,052	118	7	616	360	3,073

- End of Section -

## Appendix B Peak Demand Forecast Details

**Table B1: Weekly Zonal Coincident Peak Demand Forecast, Normal Weather**

Week Ending	Hourly Coincident Peak Demand (MW)											
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	Total System	Load Forecast Uncertainty
08-Jan-06	982	1,715	1,908	1,513	1,875	7,648	811	60	4,574	2,473	23,558	838
15-Jan-06	958	1,755	1,965	1,389	1,948	7,837	838	62	4,606	2,555	23,914	864
22-Jan-06	969	1,769	2,092	1,334	2,011	7,955	838	64	4,723	2,529	24,285	977
29-Jan-06	957	1,753	2,219	1,284	2,041	7,860	819	63	4,626	2,450	24,073	826
05-Feb-06	1,000	1,725	2,025	1,319	1,944	7,802	822	64	4,580	2,521	23,801	691
12-Feb-06	942	1,699	2,338	1,094	1,920	7,697	818	66	4,581	2,475	23,630	673
19-Feb-06	976	1,650	2,187	1,104	1,822	7,717	816	67	4,566	2,467	23,373	814
26-Feb-06	952	1,653	1,792	1,364	1,874	7,611	825	65	4,458	2,460	23,055	698
05-Mar-06	954	1,658	2,159	1,091	1,803	7,520	802	67	4,396	2,371	22,821	820
12-Mar-06	923	1,618	1,916	1,162	1,766	7,462	812	65	4,369	2,442	22,536	694
19-Mar-06	941	1,657	1,882	1,130	1,797	7,202	785	60	4,237	2,328	22,019	725
26-Mar-06	911	1,513	2,111	958	1,704	7,129	774	59	4,217	2,306	21,682	752
02-Apr-06	897	1,573	1,710	1,069	1,681	6,938	772	55	4,135	2,296	21,126	660
09-Apr-06	893	1,468	2,001	731	1,643	6,935	761	58	4,129	2,290	20,910	680
16-Apr-06	913	1,468	1,399	1,018	1,565	6,831	769	55	4,072	2,346	20,436	690
23-Apr-06	887	1,494	1,632	927	1,561	6,719	735	54	4,027	2,220	20,255	617
30-Apr-06	922	1,402	1,309	1,132	1,354	6,862	722	49	3,942	2,219	19,914	434
07-May-06	885	1,386	1,432	1,049	1,551	6,550	747	48	3,975	2,179	19,802	722
14-May-06	934	1,419	932	1,422	1,356	6,645	725	45	3,911	2,215	19,605	664
21-May-06	887	1,410	1,376	1,169	1,476	7,397	818	37	3,956	2,617	21,143	875
28-May-06	866	1,395	1,419	1,159	1,445	7,649	772	40	3,995	2,471	21,212	1,006
04-Jun-06	868	1,363	1,491	1,121	1,464	7,827	805	42	4,110	2,587	21,678	1,075
11-Jun-06	893	1,394	1,486	1,138	1,444	7,731	822	41	4,141	2,668	21,757	1,391
18-Jun-06	912	1,327	1,671	1,103	1,582	8,217	831	46	4,444	2,671	22,806	1,474
25-Jun-06	925	1,309	1,646	1,082	1,639	8,748	925	49	4,718	2,959	23,999	1,225
02-Jul-06	855	1,284	1,725	993	1,543	8,651	935	52	4,698	2,919	23,654	1,676
09-Jul-06	873	1,345	1,741	1,181	1,736	8,731	930	47	4,653	2,912	24,149	1,186
16-Jul-06	885	1,339	1,793	1,075	1,682	8,848	914	48	4,755	2,893	24,232	1,456
23-Jul-06	890	1,413	1,766	1,127	1,723	8,632	949	46	4,606	3,045	24,197	1,189
30-Jul-06	896	1,371	1,804	1,181	1,782	8,654	914	47	4,560	2,984	24,194	1,199
06-Aug-06	876	1,348	1,609	1,096	1,599	8,580	948	46	4,490	3,092	23,685	1,254
13-Aug-06	896	1,416	1,713	1,084	1,708	8,713	901	47	4,620	2,930	24,027	1,222
20-Aug-06	914	1,477	1,663	1,095	1,712	8,498	877	44	4,518	2,851	23,651	1,143
27-Aug-06	904	1,478	1,601	1,069	1,682	8,361	876	44	4,489	2,842	23,344	1,417
03-Sep-06	887	1,531	1,614	1,153	1,652	8,452	912	46	4,501	2,962	23,709	1,290
10-Sep-06	870	1,474	1,484	953	1,498	8,307	902	47	4,493	2,926	22,952	1,278
17-Sep-06	853	1,430	1,379	920	1,453	8,069	888	48	4,337	2,890	22,267	1,281
24-Sep-06	906	1,459	1,409	824	1,481	7,712	826	44	4,173	2,671	21,503	1,111
01-Oct-06	869	1,428	1,506	817	1,597	6,906	718	54	3,999	2,344	20,238	841

(Table B1 continued)

Week Ending	Hourly Coincident Peak Demand (MW)											
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	Total System	Load Forecast Uncertainty
08-Oct-06	877	1,477	1,591	818	1,640	6,778	739	54	3,998	2,245	20,218	597
15-Oct-06	866	1,501	1,573	946	1,639	6,821	745	55	3,993	2,239	20,378	375
22-Oct-06	872	1,535	1,419	1,164	1,655	6,982	768	56	4,109	2,300	20,860	384
29-Oct-06	871	1,551	1,455	1,292	1,698	7,070	763	56	4,176	2,262	21,194	571
05-Nov-06	917	1,604	1,399	1,286	1,715	7,297	787	65	4,344	2,395	21,810	586
12-Nov-06	942	1,595	1,578	1,212	1,725	7,353	799	64	4,376	2,421	22,064	497
19-Nov-06	955	1,664	1,734	1,240	1,817	7,504	813	64	4,456	2,467	22,714	450
26-Nov-06	976	1,699	1,847	1,077	1,775	7,757	825	66	4,536	2,538	23,094	572
03-Dec-06	979	1,679	1,767	1,354	1,869	7,633	840	67	4,517	2,517	23,222	523
10-Dec-06	983	1,695	2,042	1,327	1,917	7,856	840	68	4,604	2,526	23,858	701
17-Dec-06	1,034	1,729	1,872	1,274	1,895	8,006	838	67	4,630	2,567	23,912	668
24-Dec-06	950	1,703	1,957	1,395	1,906	7,926	842	66	4,667	2,512	23,924	914
31-Dec-06	932	1,709	1,983	1,376	1,907	7,021	763	59	4,349	2,334	22,434	758
07-Jan-07	978	1,732	1,940	1,524	1,912	7,726	816	62	4,646	2,508	23,844	838
14-Jan-07	954	1,772	1,988	1,399	1,986	7,906	843	64	4,675	2,590	24,175	887
21-Jan-07	964	1,787	2,116	1,343	2,049	8,023	843	66	4,793	2,563	24,547	977
28-Jan-07	953	1,771	2,242	1,292	2,079	7,927	823	65	4,697	2,485	24,335	834
04-Feb-07	993	1,753	2,045	1,328	1,987	7,869	827	65	4,661	2,560	24,089	669
11-Feb-07	937	1,717	2,361	1,111	1,958	7,763	822	68	4,652	2,509	23,900	673
18-Feb-07	972	1,668	2,210	1,117	1,860	7,784	821	68	4,639	2,500	23,639	814
25-Feb-07	947	1,670	1,811	1,379	1,913	7,677	830	67	4,534	2,496	23,325	702
04-Mar-07	946	1,681	2,179	1,107	1,848	7,609	808	68	4,476	2,411	23,132	787
11-Mar-07	917	1,634	1,940	1,172	1,806	7,542	818	67	4,439	2,478	22,813	693
18-Mar-07	936	1,673	1,906	1,139	1,837	7,280	790	63	4,306	2,364	22,295	744
25-Mar-07	906	1,531	2,135	967	1,744	7,206	779	61	4,286	2,343	21,958	752
01-Apr-07	893	1,589	1,731	1,082	1,721	7,014	778	57	4,206	2,332	21,402	661
08-Apr-07	885	1,480	2,041	721	1,686	7,011	767	60	4,195	2,321	21,166	681
15-Apr-07	905	1,485	1,432	1,013	1,606	6,904	774	57	4,138	2,380	20,693	690
22-Apr-07	880	1,513	1,658	929	1,602	6,790	740	55	4,099	2,254	20,519	617
29-Apr-07	922	1,429	1,340	1,141	1,377	6,956	725	50	4,019	2,259	20,220	392
06-May-07	884	1,413	1,454	1,055	1,589	6,617	751	50	4,042	2,213	20,066	665
13-May-07	942	1,439	960	1,438	1,385	6,729	730	46	3,992	2,256	19,918	622
20-May-07	890	1,432	1,406	1,182	1,500	7,514	823	38	4,049	2,666	21,500	875
27-May-07	866	1,418	1,451	1,169	1,469	7,769	778	41	4,090	2,520	21,571	1,005
03-Jun-07	869	1,390	1,524	1,131	1,489	7,950	811	43	4,187	2,645	22,037	1,073
10-Jun-07	898	1,425	1,519	1,143	1,468	7,850	827	42	4,214	2,725	22,110	1,396
17-Jun-07	918	1,350	1,705	1,109	1,607	8,339	836	47	4,519	2,728	23,159	1,474
24-Jun-07	929	1,343	1,708	1,054	1,654	8,815	928	49	4,804	3,003	24,286	1,292
01-Jul-07	897	1,321	1,645	1,104	1,628	8,856	940	50	4,815	2,931	24,188	1,676



Table B2: Weekly Zonal Non-Coincident Peak Demand Forecast, Normal Weather

Week	Hourly Non-Coincident Peak Demand (MW)											Zonal Total
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	System	
08-Jan-06	1,094	1,849	1,945	1,527	1,875	7,749	811	65	4,574	2,483	23,558	23,972
15-Jan-06	1,107	1,846	2,046	1,435	2,017	7,921	838	67	4,606	2,575	23,914	24,458
22-Jan-06	1,124	1,894	2,120	1,465	2,036	7,955	838	69	4,723	2,535	24,285	24,759
29-Jan-06	1,135	1,837	2,269	1,433	2,041	7,892	825	68	4,626	2,531	24,073	24,657
05-Feb-06	1,147	1,842	2,187	1,364	1,944	7,802	831	69	4,580	2,550	23,801	24,316
12-Feb-06	1,115	1,809	2,443	1,329	1,920	7,697	824	69	4,584	2,475	23,630	24,265
19-Feb-06	1,157	1,796	2,294	1,460	1,880	7,717	816	72	4,566	2,467	23,373	24,225
26-Feb-06	1,093	1,774	1,915	1,382	1,874	7,613	825	74	4,458	2,473	23,055	23,481
05-Mar-06	1,088	1,797	2,159	1,374	1,803	7,548	802	73	4,414	2,442	22,821	23,500
12-Mar-06	1,111	1,769	2,126	1,342	1,766	7,462	812	72	4,369	2,449	22,536	23,278
19-Mar-06	1,070	1,780	1,922	1,327	1,797	7,202	790	68	4,237	2,336	22,019	22,529
26-Mar-06	1,041	1,667	2,111	1,294	1,704	7,129	774	65	4,217	2,306	21,682	22,308
02-Apr-06	1,023	1,684	1,710	1,237	1,681	6,938	772	62	4,135	2,296	21,126	21,538
09-Apr-06	1,046	1,603	2,001	1,192	1,643	6,958	761	66	4,129	2,290	20,910	21,689
16-Apr-06	1,038	1,607	1,596	1,379	1,609	6,831	769	65	4,072	2,346	20,436	21,312
23-Apr-06	999	1,547	1,641	1,278	1,568	6,751	752	61	4,027	2,305	20,255	20,929
30-Apr-06	1,013	1,509	1,352	1,419	1,534	6,862	749	60	3,980	2,239	19,914	20,717
07-May-06	984	1,489	1,432	1,382	1,584	6,587	747	57	3,975	2,199	19,802	20,436
14-May-06	961	1,477	1,543	1,422	1,524	6,701	739	54	3,914	2,253	19,605	20,588
21-May-06	965	1,490	1,414	1,377	1,497	7,397	822	53	3,956	2,627	21,143	21,598
28-May-06	983	1,488	1,482	1,279	1,462	7,649	775	60	3,995	2,476	21,212	21,649
04-Jun-06	959	1,489	1,588	1,245	1,479	7,827	805	55	4,110	2,587	21,678	22,144
11-Jun-06	970	1,437	1,564	1,161	1,476	7,731	823	55	4,141	2,675	21,757	22,033
18-Jun-06	968	1,400	1,837	1,172	1,592	8,217	834	49	4,444	2,686	22,806	23,199
25-Jun-06	974	1,395	1,783	1,265	1,650	8,748	929	53	4,718	2,975	23,999	24,490
02-Jul-06	935	1,408	1,941	1,149	1,585	8,651	935	53	4,699	2,930	23,654	24,286
09-Jul-06	940	1,432	1,893	1,203	1,750	8,731	933	50	4,653	2,912	24,149	24,497
16-Jul-06	930	1,402	1,992	1,143	1,702	8,848	919	49	4,755	2,895	24,232	24,635
23-Jul-06	938	1,471	1,966	1,190	1,739	8,828	956	49	4,666	3,052	24,197	24,855
30-Jul-06	937	1,457	1,994	1,190	1,803	8,654	928	48	4,580	3,042	24,194	24,633
06-Aug-06	944	1,461	1,761	1,267	1,723	8,580	956	47	4,509	3,106	23,685	24,354
13-Aug-06	961	1,503	1,863	1,195	1,732	8,713	909	50	4,630	2,948	24,027	24,504
20-Aug-06	977	1,555	1,785	1,154	1,733	8,498	913	49	4,527	2,997	23,651	24,188
27-Aug-06	977	1,601	1,694	1,192	1,705	8,361	884	49	4,492	2,899	23,344	23,854
03-Sep-06	951	1,626	1,736	1,256	1,687	8,452	917	51	4,503	2,978	23,709	24,157
10-Sep-06	933	1,578	1,613	1,041	1,547	8,307	905	49	4,493	2,931	22,952	23,397
17-Sep-06	947	1,573	1,525	1,078	1,563	8,069	891	53	4,339	2,891	22,267	22,929
24-Sep-06	988	1,555	1,565	876	1,592	7,742	831	56	4,194	2,679	21,503	22,078
01-Oct-06	968	1,506	1,574	848	1,602	7,094	743	54	4,023	2,391	20,238	20,803

(Table B2 continued)

Week	Hourly Non-Coincident Peak Demand (MW)											
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	System	Zonal Total
08-Oct-06	993	1,556	1,675	986	1,653	6,999	743	62	3,998	2,333	20,218	20,998
15-Oct-06	982	1,566	1,738	1,137	1,639	6,857	745	61	3,993	2,248	20,378	20,966
22-Oct-06	987	1,675	1,502	1,267	1,661	6,982	768	61	4,109	2,300	20,860	21,312
29-Oct-06	1,025	1,686	1,455	1,361	1,698	7,070	763	60	4,176	2,287	21,194	21,581
05-Nov-06	1,018	1,712	1,399	1,496	1,715	7,350	787	70	4,344	2,399	21,810	22,290
12-Nov-06	1,054	1,782	1,676	1,252	1,787	7,440	799	69	4,376	2,421	22,064	22,656
19-Nov-06	1,049	1,816	1,736	1,302	1,817	7,583	813	69	4,456	2,487	22,714	23,128
26-Nov-06	1,038	1,842	2,017	1,297	1,790	7,757	830	69	4,536	2,538	23,094	23,714
03-Dec-06	1,055	1,814	1,976	1,402	1,869	7,673	840	70	4,517	2,538	23,222	23,754
10-Dec-06	1,073	1,833	2,061	1,411	1,917	7,971	840	70	4,612	2,556	23,858	24,344
17-Dec-06	1,085	1,871	2,151	1,433	1,922	8,006	846	69	4,630	2,567	23,912	24,580
24-Dec-06	1,056	1,893	2,106	1,435	1,906	8,038	844	68	4,675	2,567	23,924	24,588
31-Dec-06	1,034	1,876	1,997	1,418	1,907	7,093	779	64	4,349	2,338	22,434	22,855
07-Jan-07	1,098	1,870	1,977	1,537	1,912	7,809	816	67	4,646	2,514	23,844	24,246
14-Jan-07	1,111	1,862	2,070	1,450	2,056	7,975	843	68	4,675	2,606	24,175	24,716
21-Jan-07	1,129	1,913	2,145	1,476	2,075	8,023	843	71	4,793	2,569	24,547	25,037
28-Jan-07	1,138	1,854	2,295	1,445	2,079	7,945	829	70	4,697	2,561	24,335	24,913
04-Feb-07	1,151	1,858	2,211	1,376	1,987	7,869	835	70	4,661	2,583	24,089	24,601
11-Feb-07	1,120	1,829	2,465	1,344	1,958	7,763	830	71	4,655	2,509	23,900	24,544
18-Feb-07	1,161	1,812	2,318	1,467	1,920	7,784	821	73	4,639	2,500	23,639	24,495
25-Feb-07	1,098	1,795	1,938	1,391	1,913	7,677	830	75	4,534	2,506	23,325	23,757
04-Mar-07	1,092	1,817	2,179	1,388	1,848	7,634	808	75	4,498	2,477	23,132	23,816
11-Mar-07	1,116	1,784	2,150	1,355	1,806	7,542	818	75	4,439	2,485	22,813	23,570
18-Mar-07	1,075	1,795	1,944	1,347	1,837	7,280	796	71	4,306	2,373	22,295	22,824
25-Mar-07	1,046	1,682	2,135	1,300	1,744	7,206	779	68	4,286	2,343	21,958	22,589
01-Apr-07	1,028	1,698	1,731	1,254	1,721	7,014	778	65	4,206	2,332	21,402	21,827
08-Apr-07	1,054	1,618	2,041	1,182	1,686	7,011	767	68	4,195	2,321	21,166	21,943
15-Apr-07	1,045	1,634	1,633	1,375	1,651	6,904	774	68	4,138	2,380	20,693	21,602
22-Apr-07	1,006	1,567	1,663	1,297	1,609	6,790	756	64	4,099	2,341	20,519	21,192
29-Apr-07	1,023	1,532	1,386	1,436	1,582	6,956	752	63	4,050	2,275	20,220	21,055
06-May-07	995	1,514	1,454	1,417	1,626	6,651	751	60	4,042	2,226	20,066	20,736
13-May-07	971	1,501	1,559	1,438	1,564	6,793	743	57	3,992	2,309	19,918	20,927
20-May-07	975	1,509	1,441	1,396	1,525	7,514	828	56	4,049	2,676	21,500	21,969
27-May-07	992	1,513	1,516	1,298	1,496	7,769	781	61	4,090	2,525	21,571	22,041
03-Jun-07	967	1,522	1,622	1,270	1,514	7,950	811	57	4,187	2,645	22,037	22,545
10-Jun-07	975	1,459	1,600	1,167	1,516	7,850	828	56	4,214	2,732	22,110	22,397
17-Jun-07	969	1,425	1,871	1,182	1,619	8,339	839	50	4,519	2,744	23,159	23,557
24-Jun-07	984	1,418	1,868	1,277	1,669	8,815	933	53	4,804	3,019	24,286	24,840
01-Jul-07	993	1,423	1,786	1,318	1,675	8,856	942	54	4,815	2,941	24,188	24,803

- End of Section -

## Appendix C Analytical Factors

Table C1: Factors Affecting Demand

Factors Affecting Daily Energy Demand				
Variable Class	Variable	Change in Variable	Impact On Daily Energy Demand (MWh)	
Weather	<b>Daily Avg Temperature</b>			
	> 16° C	1°C Increase	7,490 MWh Increase	
	10°C > and < 16° C	1°C Increase	610 MWh Increase	
	< 10°C	1°C Decrease	2,740 MWh Increase	
	<b>Daily Humidity - Dewpoint</b>			
	> 16° C	1°C Increase	2,720 MWh Increase	
	10°C > and < 16° C	1°C Increase	220 MWh Increase	
	< 10°C	1°C Decrease	1,000 MWh Increase	
	<b>Wind</b>			
	Summer	1 km/hr Decrease	230 MWh Increase	
Winter	1 km/hr Increase	120 MWh Increase		
<b>Cloud</b>				
Summer	Decrease of 1 on Scale	1,230 MWh Decrease		
Winter	Increase of 1 on Scale	1,410 MWh Increase		
Economic	<b>Employment</b>	Increase of 1,000 jobs	20 MWh Increase	
	<b>Housing Stock</b>	Increase of 1,000 houses	25 MWh Increase	
Calendar	<b>Holidays</b>	New Year's Day	68,000 MWh Decrease	
		Good Friday	45,000 MWh Decrease	
		Victoria Day	53,000 MWh Decrease	
		Canada Day	35,000 MWh Decrease	
		August Civic Holiday	37,000 MWh Decrease	
		Labour Day	56,000 MWh Decrease	
		Thanksgiving Day	55,000 MWh Decrease	
		Remembrance Day	8,000 MWh Decrease	
		Christmas	82,000 MWh Decrease	
		Boxing Day	80,000 MWh Decrease	
		<b>Day of Week</b>	New Year's Eve	5,000 MWh Decrease
			Monday vs Sunday	45,000 MWh Increase
	Tuesday vs Sunday		46,000 MWh Increase	
	Wednesday vs Sunday		47,000 MWh Increase	
	Thursday vs Sunday	46,000 MWh Increase		
	Friday vs Sunday	43,000 MWh Increase		
Saturday vs Sunday	11,000 MWh Increase			

(Table C1 continued)

Factors Affecting Daily Peak Demand			
Variable Class	Variable	Change in Variable	Impact On Daily Peak Demand (MW)
Weather	<b>Temperature</b>		
	> 16° C	1°C Increase	420 MW Increase
	10°C > and < 16° C	1°C Increase	80 MW Increase
	< 10°C	1°C Decrease	110 MW Increase
	<b>Humidity - Dewpoint</b>		
	> 16° C	1°C Increase	150 MW Increase
	10°C > and < 16° C	1°C Increase	30 MW Increase
	< 10°C	1°C Decrease	40 MW Increase
	<b>Wind</b>		
	Summer	1 km/hr Decrease	13 MW Increase
Winter	1 km/hr Increase	10 MW Increase	
Cloud			
	Summer	Decrease of 1 on Scale	100 MW Increase
Winter	Increase of 1 on Scale	70 MW Increase	
Economic	<b>Employment</b>	Increase of 1,000 jobs	1 MW Increase
	<b>Housing Stock</b>	Increase of 1,000 houses	1 MW Increase
Calendar	<b>Holidays</b>	New Year's Day	3,000 MW Decrease
		Good Friday	2,100 MW Decrease
		Victoria Day	2,400 MW Decrease
		Canada Day	1,600 MW Decrease
		August Civic Holiday	1,500 MW Decrease
		Labour Day	2,300 MW Decrease
		Thanksgiving Day	2,400 MW Decrease
		Remembrance Day	200 MW Decrease
		Christmas	4,400 MW Decrease
		Boxing Day	3,600 MW Decrease
	<b>Day of Week</b>	New Year's Eve	600 MW Decrease
		Monday vs Sunday	2,000 MW Increase
		Tuesday vs Sunday	2,000 MW Increase
		Wednesday vs Sunday	2,000 MW Increase
		Thursday vs Sunday	1,900 MW Increase
		Friday vs Sunday	1,600 MW Increase
		Saturday vs Sunday	200 MW Increase

- End of Document -