

**18-MONTH OUTLOOK:**

# Ontario Demand Forecast

From January 2007 to June 2008



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## Executive Summary

The IESO is responsible for forecasting electricity demand on the IESO-controlled grid and for assessing whether transmission and generation facilities are adequate to meet Ontario's needs. This document presents the demand forecast for the period from January 2007 to June 2008 and supersedes the previous forecast released in September 2006.

### Actual Demand

Since the last forecast the IESO has recorded actual demand and weather data for September and October. Here are the results:

#### September

- September's weather was mild in terms of maximum and average temperatures.
- The peak electricity demand of 19,976 MW was the lowest September peak since 1997. The weather-corrected peak of 21,408 MW was the lowest since 2003.
- Energy demand for the month was 11.5 TWh, the lowest September since 2001. Weather-corrected energy demand was 11.6 TWh, also the lowest since 2001.
- Wholesale industrial energy demand continued to decline in September. Their September 2006 consumption was 9.7% lower than in September 2005 and 12.7% lower than September 2004. On a year-to-date basis wholesale industrial customers' consumption is down 6.1% for the first nine months compared to the previous year. This is a reduction of 1.1 TWh.

#### October

- October was slightly cooler than normal in terms of average temperature. The peak demand day had a daily high of 13.5 °C, which is warmer than normal.
- Peak electricity demand for October was 19,590 MW which is the lowest October peak since 2000. The weather-corrected peak was 19,504 MW the lowest since 1999.
- Energy demand for the month was 12.0 TWh, the lowest demand level since 2001. On a weather-corrected basis demand was 11.9 TWh, also the lowest since 2001.
- Wholesale industrial customers' consumption continued to fall in October as their demand was 8.2% lower than the previous October. On a year-to-date their consumption is down 6.3% compared to the same 10 months a year ago. This is a reduction of 1.3 TWh.

Overall, the weather experienced during the fall of 2006 was generally unremarkable. On a weather-corrected basis energy demand was 4.1% lower than demand for the same two months of the previous year.

## Economic Outlook

The IESO has updated the economic assumptions that underpin the forecast to reflect the most recent outlook for the Ontario economy. The key drivers remain the same however the impact of these drivers has started to show an impact on electricity demand. Here are the key points:

- Since 2003, the “high” dollar has had the potential to negatively impact Ontario’s export oriented industrial base. High commodity prices, driven by world demand, have forestalled most of this potential negative impact.
- However, sectors faced with lower commodity prices have not been able to avert the dollar impact. Margins have been further squeezed by higher fuel prices. These sectors have experienced a reduction in electricity demand.
- Low interest rates continue to foster business investment and consumption. The consumption of goods and services will promote economic and electricity demand growth across a number of sectors of the Ontario economy throughout the forecast.
- Although the general economic outlook is similar to the previous forecast, the growth prospects vary by sector. Overall, the Ontario economic outlook calls for continued growth throughout this forecast. However, the fact that this growth is not broad-based means that electricity demand will be shaped by the prospects of the large energy-intensive users.

## Methodology

Due to the drop in electricity demand the models have been adjusted and re-estimated to capture these developments. The adjustments include a number of items that were easily addressed in the short term. The economic drivers were revisited and refined. The weather scenarios were updated and the period forecasted using Monthly Normal weather was reduced. End-point adjustments were made to incorporate the latest zonal demand data.

Consistent with the previous Outlook, the IESO presents demand forecasts based on Weekly, Monthly and Seasonally normalized weather. Each of the normalization periods yield a different demand forecast and uncertainty distribution. The different periods serve various analytical purposes or needs.

## Demand Forecast

The demand forecast is lower than the previous forecast largely due to the aforementioned economic impacts. Although industrial load is not typically weather sensitive, peak demands will be impacted through reduced baseload.

The Ontario Power Authority (OPA) and Local Distribution Companies (LDC) have introduced a number of conservation and demand response programs this year but the full impact of these programs has yet to be felt. The IESO will be incorporating these impacts as more details become available.

Table 1 summarizes the peak and energy demand forecast covered in this 18-month forecast. Figure 1 shows the difference between the previous and current forecast (monthly normalized).

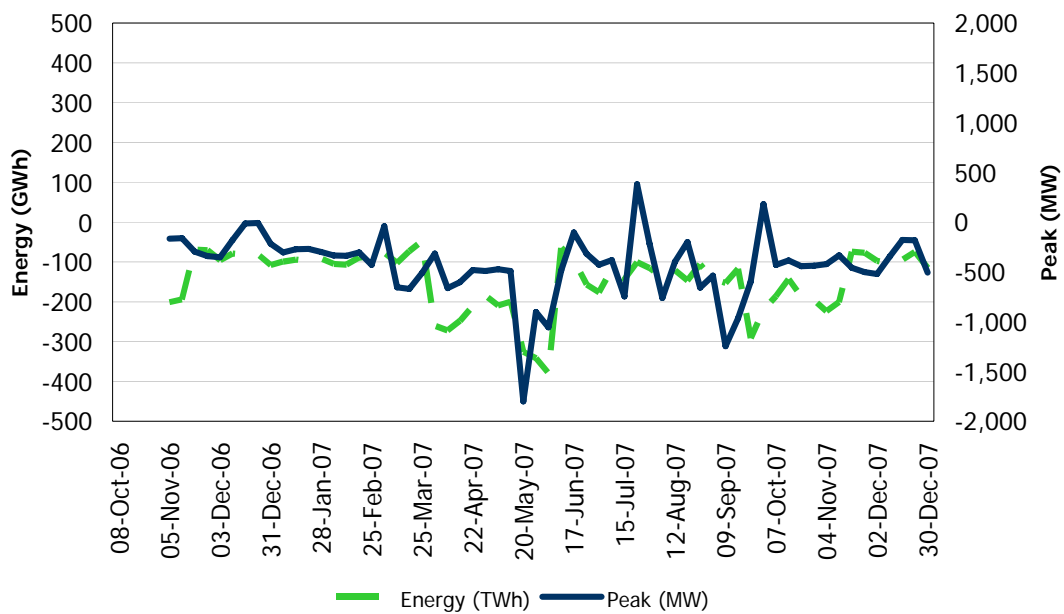
Table 1: Demand Forecast

Season	Weekly Normal Weather Peak (MW)	Monthly Normal Weather Peak (MW)	Seasonal Normal Weather Peak (MW)	Extreme Weather Peak (MW)
Winter 2007	24,058	24,407	24,612	25,400
Summer 2007	24,184	25,434	25,658	27,456
Winter 2007-08	24,124	24,473	24,678	25,467

Year	Actual TWh	% Growth	Weather Corrected TWh	% Growth
2004 Energy	153.4	1.1%	153.7	1.3%
2005 Energy	157.0	2.3%	154.7	0.7%
2006 Energy (Forecast)	152.7	-2.7%	153.1	-1.1%
2007 Energy (Forecast)	155.1	1.6%	155.1	1.3%

Figure 1: Comparison - Current Less Previous Forecast



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# 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 2007 to June 2008. It supersedes the previous forecast released September 25, 2006.

## 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\\_2006sep.pdf](http://www.ieso.ca/imoweb/pubs/marketReports/Methodology_RTAA_2006sep.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 September 2006. Data for October 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 Customer Relations at 905-403-6900 or 1-888-448-7777 or send an email to [customer.relations@ieso.ca](mailto:customer.relations@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.

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## 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 Monthly Normal weather.

### 2.1 Fall 2006 Review

The historical database now includes the experiences for September and October. The temperatures for this period were slightly cooler than normal. Overall, the weather impacts were relatively small throughout the fall.

Figure 2.1 shows the daily temperature for the fall of 2006 sorted from highest to lowest. The shaded area denotes the range of weather impacts experienced over the 1970-2006 time-frame.

**Figure 2.1: Daily Weather Impact – Fall of 2006**

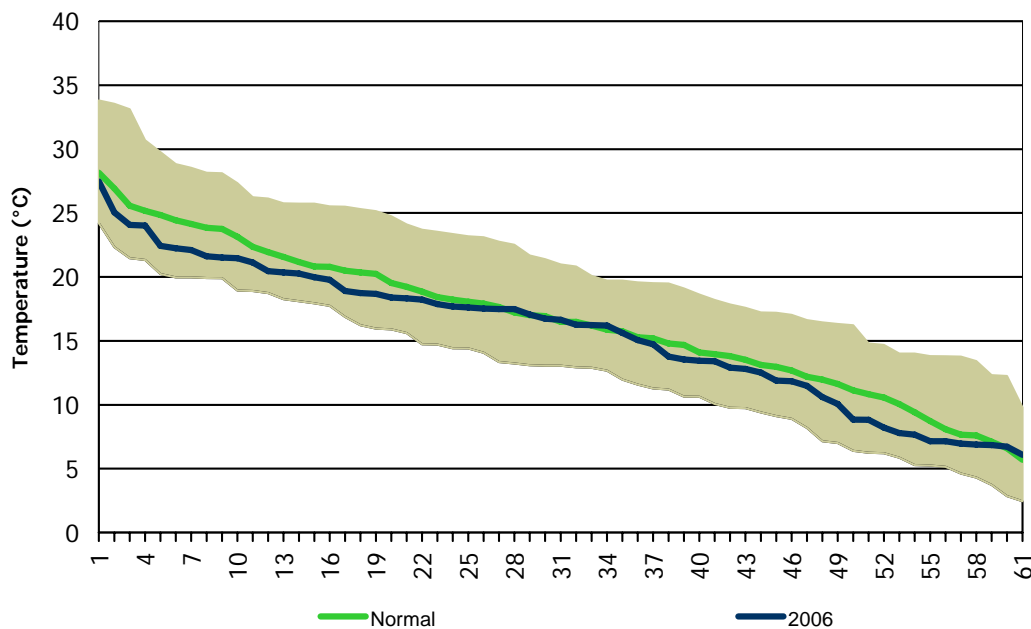


Table 2.1 contains a summary of the weather and demand for the fall (September and October) of 2006. A couple of items to note:

- The weather was slightly cooler than normal.
- The October minimum was the lowest hourly value since May 2003.
- Neither month had an hourly demand in excess of 20,000 MW.

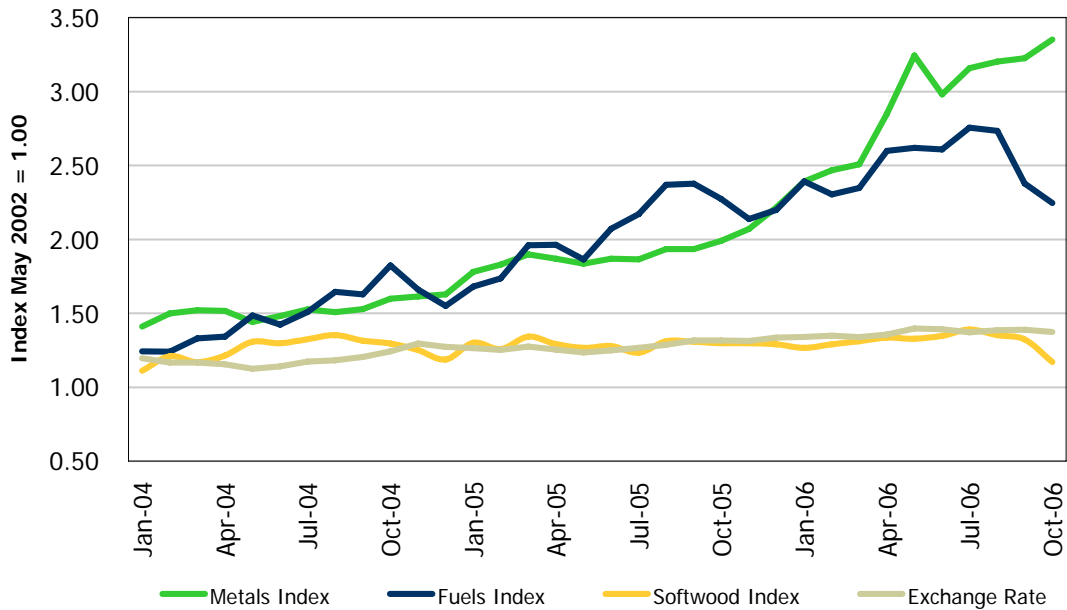
Table 2.1: Historical Weather and Demand Summary

Historical Analysis		September	October
Weather - Actual	Average Temperature (°C)	19.3	12.5
	Minimum Temperature (°C)	12.1	5.9
	Maximum Temperature (°C)	28.0	23.3
Weather - Monthly Normal	Monthly Normal Average Temperature (°C)	21.6	13.5
	Monthly Normal Minimum Temperature (°C)	15.3	5.6
	Monthly Normal Maximum Temperature (°C)	29.8	23.3
Demand - Actual	Peak Demand (MW)	19,976	19,590
	Average Hour (MW)	16,001	16,078
	Minimum Hour (MW)	11,796	11,621
	90th Percentile (MW)	18,524	18,410
	Percent above 20,000 (MW)	0.0%	0.0%
	# of Hours Above 20,000 (MW)	0	0
	Energy Demand (GWh)	11,521	11,962
Demand - Weather Corrected	Peak Demand (MW)	21,048	19,504
	Energy Demand (GWh)	11,647	11,895
Demand - Forecast	Peak Demand (MW)	23,567	21,498
	Energy Demand (GWh)	12,255	12,522

Notes for Table 2.1 – Weather is for Toronto. Temperature is the daily high. Forecast is the most recent for that period.

With the mild weather, the underlying weakness in baseload demand was quite evident in September and October. Some industrial sectors have been under considerable pressure due to the combined impact of the exchange rate with their commodity price. Figure 2.2 shows the indices for several commodities and the exchange rate. Essentially, those industries with high commodity prices are thriving, while industries with lower commodity prices are being negatively impacted by the dollar.

Figure 2.2: Commodity Price Index



## 2.2 Historical Energy Demand

Actual energy demand was 23,483 GWh (23,542 GWh weather-corrected) for September and October. This was 5.1% lower than the same months a year earlier (4.1% lower on a weather-corrected basis). The lower demand numbers are a result of a number of factors – efficiency gains, declining levels of activity and fewer wholesale customers.

Figure 2.2 shows the 52-week moving average of the actual and weather-corrected energy demand. The deviations in the two lines can be traced back to significant weather impacts. Since the start of 2006, energy demand has continued to tail off.

Figure 2.3: Energy Demand – 52-Week Moving Average

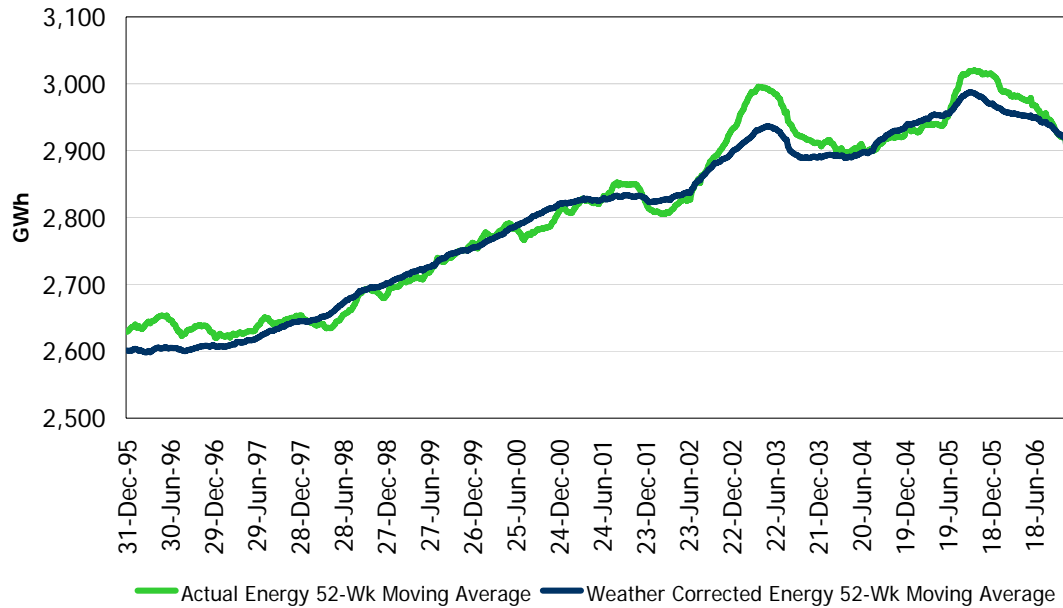


Table 2.2 shows the weekly energy demand for the past 52 weeks. The table has the actual and weather-corrected demand for each week. If the weather correction is positive it means that the weather was milder than normal. As well, the table notes any item of significance for the week.

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
06-Nov-05	2,780	2,898	118	44	
13-Nov-05	2,809	2,869	60	45	Remembrance Day
20-Nov-05	2,910	2,904	-5	46	
27-Nov-05	3,061	2,923	-138	47	All-Time November peak
04-Dec-05	3,020	3,022	2	48	
11-Dec-05	3,205	3,133	-72	49	
18-Dec-05	3,287	3,167	-120	50	
25-Dec-05	3,107	3,106	-1	51	Christmas Day
01-Jan-06	2,801	2,860	59	52	Boxing Day & New Year's Day
08-Jan-06	3,064	3,141	77	53	
15-Jan-06	3,051	3,240	189	54	
22-Jan-06	3,136	3,328	191	55	
29-Jan-06	3,080	3,261	181	56	
05-Feb-06	3,002	3,191	189	57	
12-Feb-06	3,173	3,164	-9	58	
19-Feb-06	3,183	3,175	-9	59	
26-Feb-06	3,138	3,113	-25	60	



(Table 2.2 continued)

Week Ending	Actual Energy (GWh)	Weather Corrected Energy (GWh)	Weather Correction (GWh)	Week Number	Notes for Week
05-Mar-06	3,166	3,115	-51	61	
12-Mar-06	2,959	3,092	133	62	
19-Mar-06	2,996	2,982	-13	63	
26-Mar-06	2,973	2,947	-25	64	
02-Apr-06	2,785	2,890	104	65	
09-Apr-06	2,839	2,908	69	66	
16-Apr-06	2,619	2,673	54	67	Good Friday
23-Apr-06	2,652	2,694	42	68	Easter Monday
30-Apr-06	2,675	2,718	42	69	
07-May-06	2,605	2,593	-12	70	
14-May-06	2,625	2,640	14	71	
21-May-06	2,604	2,620	16	72	Victoria Day
28-May-06	2,630	2,656	25	73	
04-Jun-06	3,032	2,878	-154	74	
11-Jun-06	2,792	2,780	-12	75	
18-Jun-06	2,959	2,950	-10	76	
25-Jun-06	3,024	3,007	-17	77	
02-Jul-06	2,981	2,937	-44	78	
09-Jul-06	2,901	2,803	-98	79	Canada Day
16-Jul-06	3,156	3,022	-134	80	
23-Jul-06	3,190	3,086	-105	81	
30-Jul-06	3,303	3,184	-119	82	
06-Aug-06	3,372	3,265	-106	83	Peak Demand record set
13-Aug-06	2,892	2,904	12	84	Civic Holiday
20-Aug-06	2,991	2,994	3	85	
27-Aug-06	2,892	2,899	7	86	
03-Sep-06	2,773	2,809	36	87	
10-Sep-06	2,694	2,737	43	88	Labour Day
17-Sep-06	2,718	2,740	22	89	
24-Sep-06	2,700	2,736	35	90	
01-Oct-06	2,663	2,665	2	91	
08-Oct-06	2,649	2,654	5	92	
15-Oct-06	2,639	2,629	-11	93	Thanksgiving
22-Oct-06	2,718	2,686	-32	94	
29-Oct-06	2,798	2,772	-26	95	

### 2.3 Historical Peak Demand

Peak demands are driven by weather. This was evident this past summer when a new all-time peak demand of 27,005 MW was reached on an extremely hot and humid day. Over the past two months, the weather has been quite unremarkable and the weekly peaks reflect that, having averaged just over 19,200 MW.

Figure 2.5 displays the 52-week moving average of both actual and weather-corrected peak demand. 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

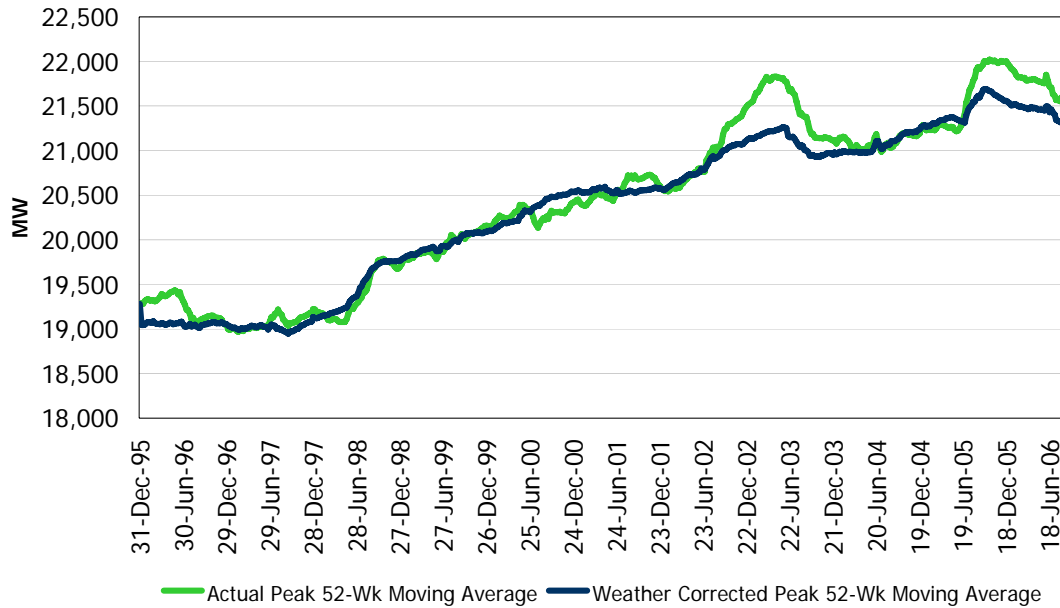


Table 2.3 contains the actual and weather-corrected weekly peak demand for the past 52 weeks. The table shows the daily afternoon maximum temperature for the actual peak day.

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)
06-Nov-05	44	02-Nov-05	20,065	20,815	12.3
13-Nov-05	45	10-Nov-05	20,390	20,685	5.7
20-Nov-05	46	17-Nov-05	21,279	21,081	2.7
27-Nov-05	47	24-Nov-05	22,564	21,727	-6.3
04-Dec-05	48	02-Dec-05	21,746	21,790	-0.8
11-Dec-05	49	07-Dec-05	23,173	22,983	-4.3
18-Dec-05	50	14-Dec-05	23,766	23,322	-4.8
25-Dec-05	51	19-Dec-05	23,377	23,040	-4.7
01-Jan-06	52	28-Dec-05	20,167	20,798	2.7
08-Jan-06	1	06-Jan-06	21,941	22,508	-5.2
15-Jan-06	2	09-Jan-06	21,905	23,069	2.6
22-Jan-06	3	16-Jan-06	23,052	24,233	-5.0
29-Jan-06	4	25-Jan-06	22,404	23,592	-0.6
05-Feb-06	5	31-Jan-06	21,398	22,864	1.3
12-Feb-06	6	08-Feb-06	22,230	22,685	-6.1
19-Feb-06	7	16-Feb-06	22,321	22,485	-0.9
26-Feb-06	8	20-Feb-06	21,928	21,689	-3.4
05-Mar-06	9	28-Feb-06	22,264	22,059	-5.3
12-Mar-06	10	06-Mar-06	21,224	21,866	0.3
19-Mar-06	11	14-Mar-06	20,958	20,708	1.8
26-Mar-06	12	20-Mar-06	21,238	21,195	-1.7
02-Apr-06	13	27-Mar-06	19,737	20,844	11.5
09-Apr-06	14	05-Apr-06	19,582	19,793	3.7
16-Apr-06	15	12-Apr-06	18,717	19,740	16.9
23-Apr-06	16	18-Apr-06	17,869	18,547	15.5
30-Apr-06	17	25-Apr-06	18,796	18,526	7.2

(Table 2.3 continued)

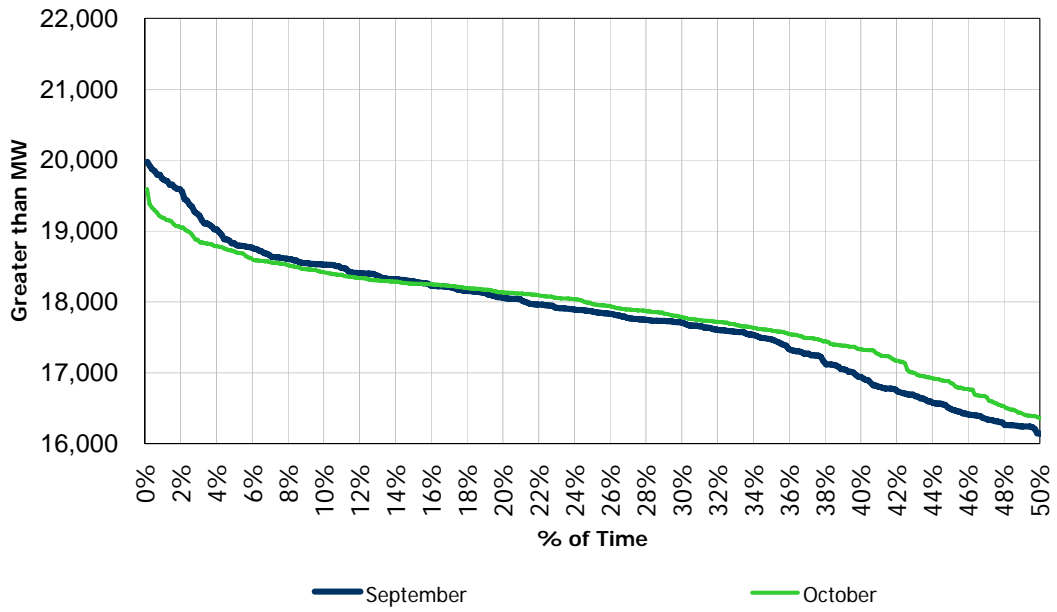
Week Ending	Week Number	Peak Day	Actual Peak (MW)	Weather Corrected Peak (MW)	Actual Peak Day Temperature (°C)
07-May-06	18	04-May-06	18,063	18,224	23.0
14-May-06	19	10-May-06	18,303	18,710	23.4
21-May-06	20	18-May-06	17,986	18,178	14.5
28-May-06	21	26-May-06	18,624	18,762	18.8
04-Jun-06	22	30-May-06	24,857	21,287	32.8
11-Jun-06	23	07-Jun-06	21,249	20,764	27.1
18-Jun-06	24	17-Jun-06	21,635	20,023	33.3
25-Jun-06	25	22-Jun-06	23,349	23,515	30.6
02-Jul-06	26	28-Jun-06	22,298	22,148	26.2
09-Jul-06	27	04-Jul-06	22,299	22,035	28.9
16-Jul-06	28	14-Jul-06	23,802	21,479	30.0
23-Jul-06	29	17-Jul-06	25,898	23,803	33.8
30-Jul-06	30	26-Jul-06	24,630	23,147	30.5
06-Aug-06	31	01-Aug-06	27,005	22,890	36.4
13-Aug-06	32	08-Aug-06	21,444	22,538	24.6
20-Aug-06	33	18-Aug-06	23,008	22,404	30.4
27-Aug-06	34	22-Aug-06	21,350	21,344	27.5
03-Sep-06	35	28-Aug-06	20,627	22,063	23.6
10-Sep-06	36	08-Sep-06	19,976	20,389	28.0
17-Sep-06	37	13-Sep-06	18,863	19,173	20.9
24-Sep-06	38	18-Sep-06	19,743	19,150	26.3
01-Oct-06	39	27-Sep-06	18,666	18,683	22.3
08-Oct-06	40	03-Oct-06	18,838	19,110	23.3
15-Oct-06	41	12-Oct-06	19,050	18,965	7.8
22-Oct-06	42	17-Oct-06	19,215	19,226	12.2
29-Oct-06	43	25-Oct-06	19,379	18,932	7.8

## 2.4 Load Duration Curves

Figure 2.6 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 and October 2006. All curves are a product of the weather experienced in those months.

The curves of the lines relate back to the data in Table 2.1. Since the weather in September and October was unremarkable the load duration curves are equally devoid of interest.

Figure 2.5: Load Duration Curves - September and October



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## 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\\_2006sep.pdf](http://www.ieso.ca/imoweb/pubs/marketReports/Methodology_RTAA_2006sep.pdf)).

As mentioned in the Executive Summary, we made a number of short-term adjustments to the demand models in order to capture the recent economic driven demand results. These adjustments were made to accurately reflect the current conditions but do not represent a long-term solution. Prior to the next Outlook we will explore alternate specifications to ensure that the model is robust.

The forecast of electricity demand requires inputs and/or assumptions. This section looks at each 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 incorporates the changes to Daylight Savings Time (DST) starting in March 2007. At that point DST will begin three weeks earlier (March 11, 2007) and end one week later (November 4, 2007).

### 3.2 Economic Drivers for Forecast

To produce an energy and peak demand forecast, an economic forecast of various drivers is required. The IESO uses 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.

The economic drivers were the focus of much of the short-term adjustments made for this Outlook. The economic/industrial shifts of 2006 have begun to erode the explanatory power of the current economic drivers. For 2006 the drivers are expected to grow by 1.5% yet electricity demand is projected to decline by 1.1% highlighting the split between the drivers and demand. As such, much of the work going forward will look at finding economic drivers that more fully capture the impacts on demand of these economic shifts.

**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	5,098	2.0	31.9	-23.3	1.025	1.42
1996	5,161	1.2	39.5	23.9	1.036	1.05
1997	5,277	2.3	50.0	26.5	1.054	1.69
1998	5,440	3.1	50.1	0.2	1.076	2.18
1999	5,621	3.3	62.9	25.6	1.102	2.34
2000	5,801	3.2	67.4	7.1	1.128	2.39
2001	5,924	2.1	70.3	4.2	1.149	1.88
2002	6,014	1.5	79.6	13.3	1.168	1.65
2003	6,203	3.1	80.9	1.7	1.197	2.49
2004	6,310	1.7	79.9	-1.3	1.219	1.78
2005	6,390	1.3	73.2	-8.4	1.237	1.49
2006 (f)	6,487	1.5	69.3	-5.4	1.256	1.55
2007 (f)	6,550	1.0	63.5	-8.3	1.271	1.20
2008 (f)	6,609	0.9	62.4	-1.6	1.285	1.12

### 3.3 Weather Drivers for Forecast

Since forecasting long-term weather is not possible, weather scenarios are generated based on historical data. The analytical studies that the IESO produces serve a variety of purposes and needs. As such, a variety of inputs may be required. Therefore the IESO produces demand forecasts based on Weekly, Monthly and Seasonal normal weather. Additionally, a demand forecast is also generated based on Extreme weather.

In general, the weekly normalized weather gives the lowest peak demands, monthly normalized gives higher peak demands and seasonally normalized the highest. Each of these scenarios will therefore have a different Load Forecast Uncertainty (LFU). As the calculation of weather normalization moves from weekly to monthly and then to seasonal, there are higher peak demands but progressively lower uncertainty around those peaks.

The weather scenarios are generated using the following steps:

- For each day over the past 31 years a "weather factor" is calculated based on the weather conditions of that day (temperature, wind speed, cloud cover and humidity). This weather factor represents the MW impact on demand if those weather conditions were observed in the forecast horizon.
- The daily weather factors are sorted from highest to lowest within their normalization periodicity – they are sorted within the week, month or season.
- Normal weather is based on the median value of the sorted weather factors across the 31 years of history. For example (using monthly normalization), the median value of the maximum weather factor from each January from 1975 to 2005 would be the first day in the normal January. The median value of the second highest weather factor from each January from 1975 to 2005 would be the second day in the normal January. This is repeated until all days in the week, month or season are generated.

- Extreme weather is generated in a similar manner except that we use the maximum, rather than the median value from the sorted data. The weekly, monthly and seasonal normalizations will have points in their extreme weather set in common.

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. The resource adequacy assessments use the normal weather forecast in combination with LFU 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 useful when examining peak conditions but is unrealistic from an energy demand standpoint, as severe weather conditions do not persist over a long time period.

Table 3.2 has information about the Monthly 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. The IESO uses 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 2006.

**Table 3.2: Monthly Normal and Extreme Weather**

Week Ending	Monthly Normal Peak Date	Monthly Normal Temperature (°C)	Normal Wind Speed (km/hr)	Extreme Peak Date	Extreme Temperature (°C)	Extreme Wind Speed (km/hr)
07-Jan-07	17-Jan-92	-4.2	32	06-Jan-94	-14.0	31
14-Jan-07	16-Jan-85	-5.6	22	26-Jan-94	-17.7	22
21-Jan-07	14-Jan-88	-11.9	8	15-Jan-94	-21.4	20
28-Jan-07	05-Jan-96	-16.1	13	10-Jan-82	-15.8	41
04-Feb-07	14-Jan-78	-13.5	35	16-Jan-94	-13.8	15
11-Feb-07	15-Feb-91	-13.5	37	05-Feb-95	-17.6	41
18-Feb-07	13-Feb-97	-7.1	24	06-Feb-95	-15.4	19
25-Feb-07	26-Feb-86	-8.0	0	13-Feb-79	-17.0	16
04-Mar-07	17-Feb-97	-6.8	18	11-Feb-79	-17.2	2
11-Mar-07	08-Mar-95	-5.5	24	03-Mar-03	-14.3	6
18-Mar-07	08-Mar-76	-3.3	15	12-Mar-84	-11.3	7
25-Mar-07	24-Mar-90	-1.5	12	20-Mar-86	-11.1	29
01-Apr-07	01-Apr-93	1.1	14	25-Mar-02	-3.5	15
08-Apr-07	01-Apr-85	2.8	39	06-Apr-82	-7.4	38
15-Apr-07	15-Apr-88	5.0	26	07-Apr-03	-2.0	36
22-Apr-07	20-Apr-78	3.4	27	17-Apr-02	28.2	22
29-Apr-07	27-Apr-88	7.1	28	27-Apr-90	29.4	20
06-May-07	27-Apr-98	8.6	25	06-May-00	30.1	29
13-May-07	11-May-90	11.4	35	09-May-79	29.7	22
20-May-07	21-May-06	8.7	42	19-May-96	28.8	39
27-May-07	26-May-89	24.8	30	23-May-75	27.8	7
03-Jun-07	30-May-94	27.2	23	30-May-06	32.8	14
10-Jun-07	20-Jun-94	25.5	13	29-Jun-05	29.8	11
17-Jun-07	22-Jun-06	30.6	27	16-Jun-94	32.5	11
24-Jun-07	09-Jun-84	29.3	19	18-Jun-94	35.2	10
01-Jul-07	09-Jun-04	31.3	27	17-Jun-94	32.6	13
08-Jul-07	21-Jul-78	29.2	13	16-Jul-99	33.8	25
15-Jul-07	08-Jul-94	29.6	20	03-Jul-02	34.7	21
22-Jul-07	06-Jul-93	30.2	29	14-Jul-95	36.7	17
29-Jul-07	07-Jul-81	30.9	13	01-Jul-02	35.1	15
05-Aug-07	08-Aug-96	27.0	9	08-Aug-01	37.2	25
12-Aug-07	06-Aug-83	30.8	9	01-Aug-06	36.4	33
19-Aug-07	15-Aug-78	28.9	15	02-Aug-06	33.1	20
26-Aug-07	03-Aug-06	23.3	6	02-Aug-88	30.8	15
02-Sep-07	02-Aug-00	27.5	22	14-Aug-88	33.5	24

(Table 3.2 continued)

Week Ending	Monthly Normal Peak Date	Monthly Normal Temperature (°C)	Normal Wind Speed (km/hr)	Extreme Peak Date	Extreme Temperature (°C)	Extreme Wind Speed (km/hr)
09-Sep-07	08-Sep-91	26.1	11	03-Sep-73	32.8	9
16-Sep-07	11-Sep-78	29.6	19	09-Sep-02	33.5	15
23-Sep-07	21-Sep-80	26.8	19	16-Sep-91	31.2	30
30-Sep-07	27-Sep-94	19.5	16	22-Sep-70	26.7	21
07-Oct-07	30-Sep-92	9.5	17	01-Oct-02	28.8	34
14-Oct-07	07-Oct-81	9.5	40	12-Oct-88	4.6	24
21-Oct-07	17-Oct-03	9.8	19	20-Oct-74	2.2	27
28-Oct-07	29-Oct-83	5.6	25	26-Oct-79	2.5	27
04-Nov-07	30-Oct-92	4.0	10	07-Nov-93	2.6	26
11-Nov-07	11-Nov-79	3.8	16	12-Nov-95	0.5	34
18-Nov-07	11-Nov-85	0.4	18	13-Nov-86	-4.2	12
25-Nov-07	22-Nov-97	-2.0	11	21-Nov-87	-8.0	23
02-Dec-07	30-Nov-86	-2.0	14	03-Dec-89	-9.2	35
09-Dec-07	20-Dec-78	-1.5	29	17-Dec-89	-7.3	19
16-Dec-07	18-Dec-78	-3.2	21	07-Dec-89	-7.1	16
23-Dec-07	04-Dec-91	-8.0	19	23-Dec-89	-8.6	3
30-Dec-07	17-Dec-79	-7.3	25	24-Dec-89	-9.1	26
06-Jan-08	17-Jan-92	-4.2	32	25-Jan-94	-8.4	20
13-Jan-08	16-Jan-85	-5.6	22	10-Jan-94	-8.7	10
20-Jan-08	14-Jan-88	-11.9	8	07-Jan-94	-13.8	25
27-Jan-08	05-Jan-96	-16.1	13	08-Jan-94	-10.0	13
03-Feb-08	14-Jan-78	-13.5	35	09-Jan-94	-12.2	5
10-Feb-08	15-Feb-91	-13.5	37	16-Feb-79	-16.3	28
17-Feb-08	13-Feb-97	-7.1	24	15-Feb-79	-14.0	23
24-Feb-08	26-Feb-86	-8.0	0	04-Feb-79	-7.3	39
02-Mar-08	17-Feb-97	-6.8	18	01-Feb-79	-7.7	31
09-Mar-08	08-Mar-95	-5.5	24	03-Mar-03	-14.3	6
16-Mar-08	08-Mar-76	-3.3	15	12-Mar-84	-11.3	7
23-Mar-08	24-Mar-90	-1.5	12	20-Mar-86	-11.1	29
30-Mar-08	01-Apr-93	1.1	14	25-Mar-02	-3.5	15
06-Apr-08	01-Apr-85	2.8	39	06-Apr-82	-7.4	38
13-Apr-08	15-Apr-88	5.0	26	07-Apr-03	-2.0	36
20-Apr-08	20-Apr-78	3.4	27	17-Apr-02	28.2	22
27-Apr-08	27-Apr-88	7.1	28	27-Apr-90	29.4	20
04-May-08	27-Apr-98	8.6	25	06-May-00	30.1	29
11-May-08	11-May-90	11.4	35	09-May-79	29.7	22
18-May-08	21-May-06	8.7	42	19-May-96	28.8	39
25-May-08	26-May-89	24.8	30	23-May-75	27.8	7
01-Jun-08	30-May-94	27.2	23	30-May-06	32.8	14
08-Jun-08	26-Jun-90	27.9	26	21-Jun-05	28.6	21
15-Jun-08	22-Jun-06	30.6	27	26-Jun-05	30.9	12
22-Jun-08	09-Jun-84	29.3	19	30-Jun-05	29.2	16
29-Jun-08	09-Jun-04	31.3	27	12-Jun-05	29.5	14

### 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 require more direct intervention in the form of incentives, standards or other mechanisms. The results of these initiatives can be substantial. There are some initiatives that have started to have an impact on electricity demand. As conservation and demand management programs are developed by the OPA, they will be incorporated in the Outlook.

At this time, the demand forecast contains only the element of naturally evolving conservation – which is growing through time – but does not take into account new or evolving programs most of which are in their infancy.



## 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 from the graph are the following:

- There is a seasonal pattern in energy demand. Winter energy demand is higher and longer than the other seasons. Summer energy demand is shorter and smaller than the winter season.
- The range of possible outcomes in the forecast is illustrated by the band of colour. The range is based on load forecast uncertainty.

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

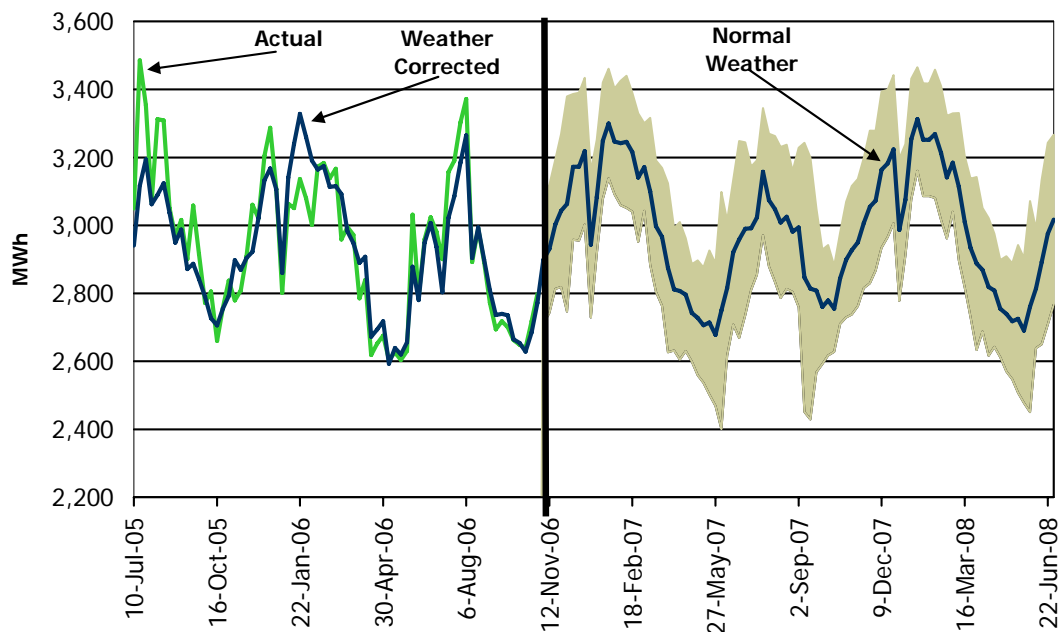


Figure 4.2 shows the range of weekly peak demands. The items of note for this graph are:

- The forecast range is generated using the Extreme weather scenario for the upper bound and the Mild weather scenario for the lower bound.
- The middle of the range represents the Monthly Normal weather peak demand.
- In general, the top half of the range is the focus of the analysis in the resource and transmission assessments. 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 – History and Forecast

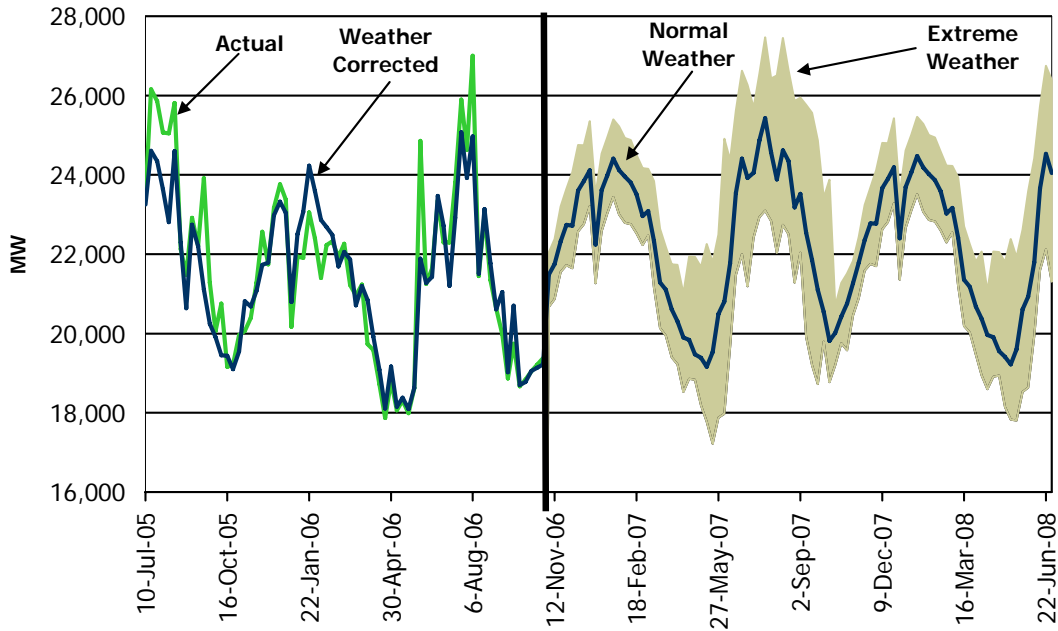
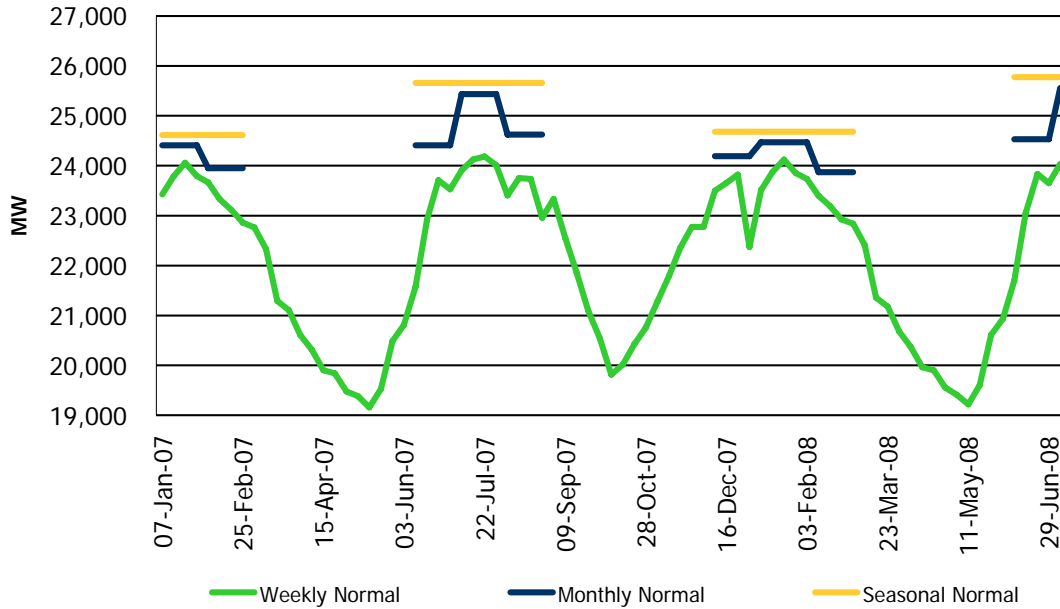


Figure 4.3 shows the difference in the forecasted peaks demands when different weather normalizations are used.

Figure 4.3: Weekly Peak Demand Forecast – Different Weather Normalizations



The Weekly Normal peak demands are the lowest, the Monthly Normal peak demands are higher and the Seasonal Normal peaks are slightly higher still.

Table 4.1 contains the weekly forecast of energy and peak demand. The table includes the Monthly Normal weather peak day temperature for Toronto, Weekly Normal peak demands, Monthly Normal peak demands, Seasonal Normal peak demands, Extreme weather peak demands and Monthly Normal energy demand. For the shoulder periods we have used weekly normalized weather as it delivers a smoother profile during the time of the year when the system is moving from either cooling to heating load or heating to cooling. As part of the adjustments made for this Outlook the period using Weekly Normal weather was extended to cover more weeks. Monthly and seasonal weather is more appropriate for the winter and summer as that is when capacity concerns are greatest.

Demand values in the table are prior to any “demand measures” as they are treated as a resource in the reliability assessment. Demand measures include loads in the Dispatchable Loads, Transitional Demand Response and Hour Ahead Dispatchable Load programs. As well, demand measures include loads which have contracted with the OPA. It is reasonable to assume that some of these demand measures would reduce consumption in an extreme weather event.

**Table 4.1: Forecasted Ontario Weekly Demand**

Week Number	Week Ending	Monthly Normal Peak Day Temperature (°C)	Weekly Normal Peak Demand (MW)	Monthly Normal Peak Demand (MW)	Seasonal Normal Peak Demand (MW)	Extreme Peak Demand (MW)	Normal Energy (GWh)
1	07-Jan-07	-4.2	23,427	23,616	23,706	24,533	3,083
2	14-Jan-07	-5.6	23,786	23,985	24,184	24,937	3,249
3	21-Jan-07	-11.9	24,058	24,407	24,612	25,400	3,300
4	28-Jan-07	-16.1	23,790	24,119	24,235	25,222	3,247
5	04-Feb-07	-13.5	23,667	23,953	24,056	24,934	3,242
6	11-Feb-07	-13.5	23,328	23,805	23,695	24,880	3,246
7	18-Feb-07	-7.1	23,115	23,511	23,368	24,504	3,216
8	25-Feb-07	-8.0	22,859	22,960	23,030	24,165	3,141
9	04-Mar-07	-6.8	22,763	23,089	23,063	24,152	3,171
10	11-Mar-07	-5.5	22,336			23,842	3,100
11	18-Mar-07	-3.3	21,291			22,639	2,998
12	25-Mar-07	-1.5	21,107			22,187	2,966
13	01-Apr-07	1.1	20,612			21,743	2,875
14	08-Apr-07	2.8	20,310			21,732	2,812
15	15-Apr-07	5.0	19,901			21,003	2,807
16	22-Apr-07	3.4	19,843			21,938	2,796
17	29-Apr-07	7.1	19,478			21,932	2,743
18	06-May-07	8.6	19,383			21,677	2,728
19	13-May-07	11.4	19,159			22,254	2,706
20	20-May-07	8.7	19,528			21,798	2,714
21	27-May-07	24.8	20,490			22,496	2,678
22	03-Jun-07	27.2	20,810			24,911	2,749
23	10-Jun-07	25.5	21,575	21,767	21,640	24,373	2,815
24	17-Jun-07	30.6	22,923	23,538	23,410	25,613	2,921
25	24-Jun-07	29.3	23,713	24,410	24,131	26,625	2,958
26	01-Jul-07	31.3	23,530	23,922	23,937	26,269	2,990
27	08-Jul-07	29.2	23,905	24,053	24,478	25,696	2,992
28	15-Jul-07	29.6	24,123	24,869	25,053	26,547	3,023
29	22-Jul-07	30.2	24,184	25,434	25,658	27,464	3,158
30	29-Jul-07	30.9	24,014	24,572	24,795	26,430	3,074
31	05-Aug-07	27.0	23,405	23,881	23,864	26,503	3,048
32	12-Aug-07	30.8	23,750	24,624	24,514	27,456	3,009
33	19-Aug-07	28.9	23,736	24,351	24,159	26,640	3,025
34	26-Aug-07	23.3	22,957	23,180	23,370	25,856	2,981
35	02-Sep-07	27.5	23,333	23,521	23,683	25,945	2,994

(Table 4.1 continued)

Week Number	Week Ending	Monthly Normal Peak Day Temperature (°C)	Weekly Normal Peak Demand (MW)	Monthly Normal Peak Demand (MW)	Seasonal Normal Peak Demand (MW)	Extreme Peak Demand (MW)	Normal Energy (GWh)
36	09-Sep-07	26.1	22,548			25,770	2,847
37	16-Sep-07	29.6	21,855			25,565	2,814
38	23-Sep-07	26.8	21,095			24,873	2,808
39	30-Sep-07	19.5	20,541			23,423	2,760
40	07-Oct-07	9.5	19,816			23,879	2,779
41	14-Oct-07	9.5	20,016			20,690	2,755
42	21-Oct-07	9.8	20,426			21,272	2,844
43	28-Oct-07	5.6	20,754			21,513	2,899
44	04-Nov-07	4.0	21,272			21,829	2,927
45	11-Nov-07	3.8	21,791			22,435	2,950
46	18-Nov-07	0.4	22,358			23,238	3,007
47	25-Nov-07	-2.0	22,775			23,679	3,054
48	02-Dec-07	-2.0	22,774			24,123	3,073
Peak forecasts for the spring and fall will continue to be based on Weekly Normal Weather							
49	09-Dec-07	-1.5	23,496	23,664	23,764	24,804	3,163
50	16-Dec-07	-3.2	23,656	23,898	23,799	24,801	3,182
51	23-Dec-07	-8.0	23,823	24,190	24,001	25,427	3,224
52	30-Dec-07	-7.3	22,373	22,399	22,419	23,509	2,987
1	06-Jan-08	-4.2	23,506	23,694	23,784	24,612	3,075
2	13-Jan-08	-5.6	23,868	24,067	24,266	25,019	3,254
3	20-Jan-08	-11.9	24,124	24,473	24,678	25,467	3,313
4	27-Jan-08	-16.1	23,856	24,185	24,301	25,288	3,252
5	03-Feb-08	-13.5	23,739	24,025	24,128	25,006	3,252
6	10-Feb-08	-13.5	23,393	23,871	23,761	24,946	3,269
7	17-Feb-08	-7.1	23,190	23,586	23,443	24,579	3,212
8	24-Feb-08	-8.0	22,925	23,026	23,096	24,231	3,141
9	02-Mar-08	-6.8	22,837	23,164	23,137	24,227	3,185
10	09-Mar-08	-5.5	22,412			23,934	3,114
11	16-Mar-08	-3.3	21,354			22,705	3,010
12	23-Mar-08	-1.5	21,176			22,250	2,934
13	30-Mar-08	1.1	20,677			21,811	2,887
14	06-Apr-08	2.8	20,372			22,064	2,870
15	13-Apr-08	5.0	19,964			21,065	2,819
16	20-Apr-08	3.4	19,904			22,067	2,809
17	27-Apr-08	7.1	19,555			22,056	2,755
18	04-May-08	8.6	19,411			21,802	2,739
19	11-May-08	11.4	19,220			22,379	2,718
20	18-May-08	8.7	19,602			21,920	2,725
21	25-May-08	24.8	20,612			22,618	2,690
22	01-Jun-08	27.2	20,932			23,590	2,761
23	08-Jun-08	27.9	21,699	21,798	21,764	24,414	2,814
24	15-Jun-08	30.6	23,046	23,661	23,533	25,735	2,893
25	22-Jun-08	29.3	23,834	24,532	24,252	26,746	2,976
26	29-Jun-08	31.3	23,652	24,045	24,060	26,392	3,017

#### 4.1 Load Duration Curves – Winter 2006-07

This section looks at the load duration curves for the winter of 2006-07. Load duration curves are useful as they tie together the peak and energy demands, and give a sense of the distribution of hourly demands.

The load duration curves for the winter of 2006-07 cover the period from November 1, 2006 to March 31, 2007. Hourly demand profiles for the winter are generated based on Monthly and Seasonal Normal weather. In addition, certain select scenarios are generated based on historical weather data. Three scenarios are generated based on the weather from 1976-77, 1989-90 and 1993-94. This section compares those scenarios with the actuals from the past winter (2005-06) which was unusually mild.

Figure 4.5 shows the highest 5% of hourly demands for the winter of 2005-06 and the forecast for 2006-07 based on Monthly Normal weather and the weather from 1989-90 and 1993-94. Of note in this graph is the fact that actuals are quite low due to the very mild January 2006. Since both 1989-90 and 1993-94 were colder than normal winters, it is not surprising that the curves are higher for the forecasts based on those years' weather.

Figure 4.4: Load Duration Curve - Winter 2006-07

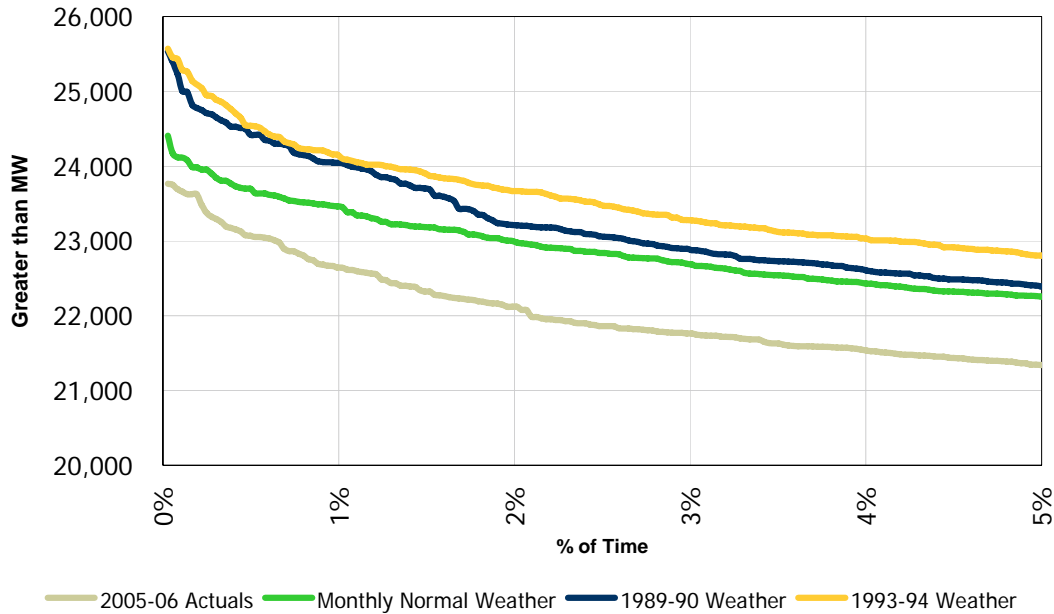


Table 4.2 shows the summary statistics for the winter of 2006-07 under the various weather scenarios shown in Figure 4.4 as well as under the Seasonal normal weather scenario. The table has the maximum, minimum and average demand for the winter. As well, it shows the demand level at the 90<sup>th</sup> 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 - Winter 2006-07

Winter 2006-07 (November 1st to March 31st)	Monthly Normal Weather	Seasonal Normal Weather	2005-06 Actuals	1989-90 Weather	1976-77 Weather	1993-94 Weather
Maximum Hour (MW)	24,407	24,612	23,766	25,537	24,889	25,570
Average Hour (MW)	18,504	18,543	18,088	18,580	18,860	18,794
Minimum Hour (MW)	11,882	12,451	12,548	11,603	12,343	12,386
Standard Deviation (MW)	2,476	2,495	2,224	2,558	2,533	2,572
90th Percentile (MW)	21,569	21,615	20,799	21,739	22,086	22,098
Percent above 23,000 MW	2.0%	2.3%	0.7%	2.7%	3.8%	4.2%
# of Hours Above 23,000 MW	72	83	25	98	138	152

#### 4.2 Load Duration Curves - Summer 2007

For the purpose of the load duration curves we define summer as the period from June 1<sup>st</sup>, 2007 to September 30, 2007. In this analysis demand values are generated using the Monthly Normal weather and three historical weather scenarios. The historical weather scenarios are based on the summer weather from 1999, 2002 and 2005.

Figure 4.4 shows the highest 5% of hourly demand for the summer of 2006 along with the forecast for the summer of 2007 based on the Monthly Normal, 1999, 2002 and 2005 weather. Of note is the fact that the summer of 2006 had a very high peak but quickly dropped off after the peak.

Figure 4.5: Load Duration Curve - Summer 2007

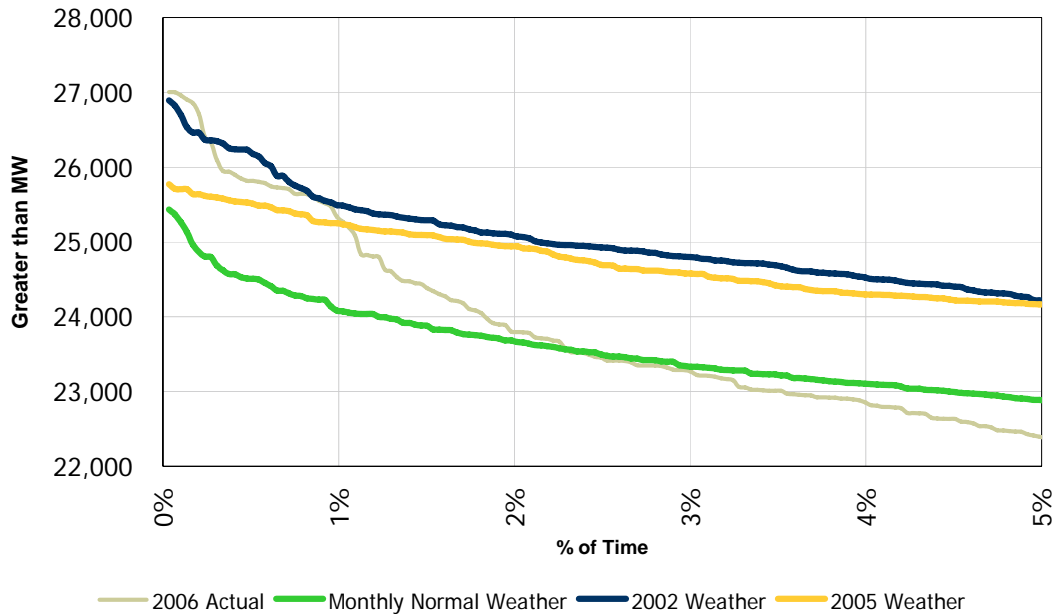


Table 4.3 shows the summary statistics for the summer of 2007 under the various weather scenarios as well as the summary statistics for the actuals for summer 2006. The table has the maximum, minimum and average demand for the summer. As well, it shows the demand level at the 90<sup>th</sup> percentile and the percent and number of hours above 23,000 MW.

Table 4.3: Summary Statistics - Summer 2007

Summer 2007 (June 1st to September 30th)	Monthly Normal	Seasonal Normal	2006 Actual	1999 Weather	2002 Weather	2005 Weather
Maximum Hour (MW)	25,434	25,658	27,005	26,869	26,892	25,771
Average Hour (MW)	17,532	17,529	17,495	17,960	18,170	18,362
Minimum Hour (MW)	10,980	11,203	11,796	11,101	11,156	11,124
Standard Deviation (MW)	3,202	3,225	2,904	3,421	3,563	3,519
90th Percentile (MW)	21,974	22,101	21,252	22,814	23,184	23,283
Percent above 23,000 MW	4.5%	4.7%	3.5%	8.5%	11.3%	11.8%
# of Hours Above 23,000 MW	132	138	102	249	331	346

### 4.3 Comparison of Current and Previous Forecast

This section compares the current forecast with that released June 23, 2006.

The biggest change is due to the inclusion of actuals and the impact on the relationship between demand and economic factors.

Table 4.4 shows the difference between the current and previous forecast for the seasons common to both forecasts. The weaker industrial demand shows through in the energy demand numbers.

**Table 4.4: Current versus Previous Forecast**

Season	Energy Demand	Monthly Normal Peak Demand	Extreme Weather Peak Demand
	(GWh)	(MW)	(MW)
Winter 2006-07	40,948	24,407	25,400
Difference (Current - Previous)	-137	-269	-325
Spring 2007	37,302	22,411	23,842
Difference (Current - Previous)	-347	-582	-1,006
Summer 2007	39,378	25,434	28,092
Difference (Current - Previous)	-622	-181	578
Fall 2007	37,451	22,775	25,770
Difference (Current - Previous)	-435	-1,019	-483
Winter 2007-08	41,476	24,473	25,467
Difference (Current - Previous)	-296	-436	-491

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## Appendix A Energy Demand Forecast Details

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

Week Ending	Weekly Normal Energy (GWh)										
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	Total System
07-Jan-07	130	260	219	183	246	999	103	10	611	322	3,083
14-Jan-07	135	270	231	191	260	1,058	110	12	642	340	3,249
21-Jan-07	141	276	237	194	264	1,071	111	12	650	343	3,300
28-Jan-07	135	270	232	190	261	1,058	109	12	645	336	3,247
04-Feb-07	137	267	229	190	252	1,060	110	12	646	339	3,242
11-Feb-07	136	263	229	190	249	1,065	111	12	650	340	3,246
18-Feb-07	133	266	226	187	253	1,051	109	12	642	337	3,216
25-Feb-07	132	256	217	180	243	1,032	107	11	629	332	3,141
04-Mar-07	133	260	220	183	245	1,043	108	12	633	335	3,171
11-Mar-07	130	253	212	176	236	1,022	107	11	620	332	3,100
18-Mar-07	122	249	206	169	238	986	102	11	598	317	2,998
25-Mar-07	122	244	199	163	230	981	102	11	595	318	2,966
01-Apr-07	120	240	190	156	223	950	100	10	576	310	2,875
08-Apr-07	119	241	184	150	213	927	98	10	565	306	2,812
15-Apr-07	117	236	180	153	209	928	99	10	567	309	2,807
22-Apr-07	115	233	180	153	206	933	99	9	563	305	2,796
29-Apr-07	117	224	174	150	201	914	98	9	555	301	2,743
06-May-07	117	215	173	149	201	914	96	8	556	299	2,728
13-May-07	116	214	171	148	200	905	95	8	550	298	2,706
20-May-07	114	215	172	146	201	919	95	8	550	296	2,714
27-May-07	114	214	170	142	200	903	95	8	535	297	2,678
03-Jun-07	114	211	173	144	204	939	97	8	555	305	2,749
10-Jun-07	117	209	173	141	206	963	106	7	561	333	2,815
17-Jun-07	119	207	180	147	213	1,018	108	8	579	341	2,921
24-Jun-07	119	204	184	152	220	1,032	111	8	583	345	2,958
01-Jul-07	117	203	184	152	222	1,063	112	8	590	336	2,990
08-Jul-07	112	203	184	153	218	1,058	114	9	590	349	2,992
15-Jul-07	116	203	185	154	221	1,077	116	8	593	349	3,023
22-Jul-07	117	206	194	164	234	1,130	120	7	618	368	3,158
29-Jul-07	117	207	191	162	233	1,079	117	7	600	361	3,074
05-Aug-07	117	207	188	158	229	1,076	114	7	601	351	3,048
12-Aug-07	118	213	185	154	227	1,041	118	7	586	359	3,009
19-Aug-07	119	218	185	154	229	1,047	116	8	594	356	3,025
26-Aug-07	119	222	181	150	221	1,024	117	8	582	358	2,981
02-Sep-07	119	228	181	150	222	1,035	113	8	594	344	2,994
09-Sep-07	112	224	172	138	208	980	110	8	558	337	2,847
16-Sep-07	115	223	168	133	208	965	105	8	564	326	2,814
23-Sep-07	114	221	165	129	209	963	106	9	565	329	2,808
30-Sep-07	116	220	165	128	214	937	101	9	556	314	2,760

(Table A1 continued)

Week Ending	Weekly Normal Energy (GWh)										
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	Total System
07-Oct-07	116	229	170	135	215	936	97	9	565	308	2,779
14-Oct-07	118	232	172	139	210	921	95	9	556	302	2,755
21-Oct-07	122	234	178	147	216	950	99	9	577	310	2,844
28-Oct-07	122	242	185	155	222	962	100	10	589	312	2,899
04-Nov-07	123	246	189	161	222	972	100	10	592	312	2,927
11-Nov-07	126	247	191	156	230	976	101	10	596	317	2,950
18-Nov-07	126	249	197	162	231	998	103	11	608	322	3,007
25-Nov-07	127	252	203	167	235	1,015	103	11	616	326	3,054
02-Dec-07	128	256	205	170	235	1,017	104	12	617	328	3,073
09-Dec-07	128	261	216	180	245	1,047	107	12	632	335	3,163
16-Dec-07	129	260	220	182	250	1,052	107	12	635	335	3,182
23-Dec-07	130	263	225	187	254	1,063	108	13	642	339	3,224
30-Dec-07	116	248	212	183	248	969	95	13	590	314	2,987
06-Jan-08	127	260	218	188	247	995	100	11	610	318	3,075
13-Jan-08	133	271	231	197	262	1,055	108	13	644	339	3,254
20-Jan-08	137	275	238	201	268	1,074	109	13	656	342	3,313
27-Jan-08	133	270	230	196	258	1,060	107	12	649	336	3,252
03-Feb-08	135	270	227	195	252	1,060	109	12	650	341	3,252
10-Feb-08	134	263	232	199	255	1,069	109	13	656	340	3,269
17-Feb-08	132	263	224	192	249	1,050	107	12	645	337	3,212
24-Feb-08	131	257	216	186	243	1,031	104	12	632	329	3,141
02-Mar-08	130	260	221	189	249	1,046	107	12	638	334	3,185
09-Mar-08	129	255	212	183	237	1,025	105	12	625	331	3,114
16-Mar-08	120	249	206	176	240	988	100	12	602	317	3,010
23-Mar-08	120	244	197	167	229	965	98	11	590	312	2,934
30-Mar-08	118	240	190	162	225	952	98	11	581	310	2,887
06-Apr-08	117	240	185	159	217	949	99	11	580	312	2,870
13-Apr-08	115	236	180	159	210	931	97	11	572	308	2,819
20-Apr-08	113	234	180	159	208	935	97	10	568	305	2,809
27-Apr-08	115	224	174	156	202	917	96	9	559	301	2,755
04-May-08	115	216	174	156	202	916	94	9	560	299	2,739
11-May-08	114	214	171	154	202	907	94	9	555	298	2,718
18-May-08	112	215	172	152	202	920	94	8	554	296	2,725
25-May-08	112	214	170	149	201	905	94	8	539	297	2,690
01-Jun-08	112	211	174	152	205	941	95	8	559	303	2,761
08-Jun-08	115	209	174	149	208	962	103	7	561	327	2,814
15-Jun-08	118	207	179	153	214	997	104	8	578	334	2,893
22-Jun-08	117	205	182	156	217	1,045	110	8	589	347	2,976
29-Jun-08	117	204	187	161	224	1,069	112	9	596	338	3,017

- End of Section -

## Appendix B Peak Demand Forecast Details

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

Week Ending	Hourly Coincident Peak Demand (MW)											Load Forecast Uncertainty
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	Total System	
07-Jan-07	862	1,689	1,815	1,570	1,990	7,723	782	74	4,708	2,403	23,616	508
14-Jan-07	833	1,719	1,788	1,510	2,015	7,942	817	87	4,766	2,508	23,985	484
21-Jan-07	850	1,766	1,843	1,549	2,123	8,099	793	90	4,832	2,462	24,407	522
28-Jan-07	842	1,777	1,814	1,533	2,095	8,005	772	90	4,788	2,404	24,119	556
04-Feb-07	831	1,736	1,775	1,521	1,945	8,014	803	89	4,800	2,439	23,953	555
11-Feb-07	824	1,688	1,744	1,483	1,931	7,974	812	89	4,775	2,485	23,805	494
18-Feb-07	836	1,672	1,694	1,429	1,911	7,933	785	85	4,730	2,434	23,511	500
25-Feb-07	801	1,596	1,647	1,410	1,915	7,766	761	80	4,631	2,352	22,960	404
04-Mar-07	772	1,643	1,663	1,423	1,915	7,829	763	82	4,641	2,358	23,089	408
11-Mar-07	790	1,600	1,567	1,359	1,789	7,563	752	77	4,491	2,347	22,336	427
18-Mar-07	750	1,594	1,486	1,265	1,869	7,107	696	75	4,251	2,197	21,291	477
25-Mar-07	736	1,534	1,439	1,212	1,772	7,176	700	74	4,267	2,197	21,107	361
01-Apr-07	723	1,527	1,402	1,184	1,779	6,943	690	69	4,122	2,175	20,612	646
08-Apr-07	716	1,511	1,346	1,133	1,659	6,905	695	71	4,091	2,183	20,310	689
15-Apr-07	704	1,477	1,290	1,068	1,603	6,764	680	68	4,063	2,183	19,901	681
22-Apr-07	703	1,483	1,296	1,106	1,567	6,745	670	66	4,058	2,148	19,843	610
29-Apr-07	761	1,386	1,249	1,079	1,453	6,769	665	59	3,930	2,127	19,478	433
06-May-07	711	1,365	1,280	1,116	1,523	6,612	658	61	4,016	2,042	19,383	666
13-May-07	699	1,373	1,259	1,117	1,515	6,517	650	58	3,953	2,017	19,159	688
20-May-07	708	1,342	1,196	1,082	1,427	7,011	656	56	3,944	2,106	19,528	851
27-May-07	702	1,348	1,236	1,092	1,471	7,570	710	45	3,989	2,328	20,490	1,031
03-Jun-07	694	1,331	1,255	1,105	1,483	7,707	725	46	4,089	2,375	20,810	1,071
10-Jun-07	754	1,360	1,291	1,126	1,576	7,762	851	46	4,258	2,743	21,767	913
17-Jun-07	744	1,331	1,386	1,239	1,661	8,859	835	57	4,687	2,739	23,538	825
24-Jun-07	745	1,317	1,438	1,311	1,716	9,138	928	59	4,785	2,972	24,410	1,127
01-Jul-07	723	1,267	1,393	1,259	1,672	9,102	914	60	4,732	2,801	23,922	782
08-Jul-07	693	1,288	1,407	1,259	1,697	8,915	943	71	4,808	2,973	24,053	726
15-Jul-07	732	1,306	1,475	1,357	1,796	9,521	894	58	4,906	2,824	24,869	1,086
22-Jul-07	732	1,326	1,514	1,425	1,870	9,513	979	55	4,955	3,066	25,434	923
29-Jul-07	743	1,301	1,448	1,343	1,737	9,204	955	52	4,781	3,007	24,572	887
05-Aug-07	728	1,322	1,408	1,296	1,734	8,862	893	52	4,745	2,841	23,881	838
12-Aug-07	759	1,364	1,466	1,353	1,810	9,134	933	55	4,826	2,924	24,624	866
19-Aug-07	745	1,408	1,461	1,338	1,841	8,948	921	55	4,723	2,911	24,351	828
26-Aug-07	747	1,416	1,361	1,220	1,700	8,318	918	54	4,561	2,884	23,180	768
02-Sep-07	738	1,450	1,380	1,237	1,720	8,637	892	57	4,622	2,787	23,521	742
09-Sep-07	710	1,417	1,279	1,109	1,531	8,355	878	56	4,461	2,752	22,548	1,071
16-Sep-07	703	1,406	1,187	1,005	1,467	8,083	859	56	4,350	2,738	21,855	889
23-Sep-07	687	1,333	1,091	890	1,363	7,890	840	55	4,276	2,670	21,095	1,099
30-Sep-07	732	1,391	1,162	941	1,551	7,416	782	50	4,019	2,498	20,541	1,191

(Table B1 continued)

Week Ending	Hourly Coincident Peak Demand (MW)											Load Forecast Uncertainty
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	Total System	
07-Oct-07	686	1,447	1,255	1,044	1,665	6,802	650	63	4,091	2,112	19,816	587
14-Oct-07	696	1,466	1,281	1,066	1,601	6,856	675	65	4,145	2,165	20,016	384
21-Oct-07	754	1,475	1,336	1,113	1,636	6,975	683	66	4,195	2,193	20,426	427
28-Oct-07	730	1,535	1,397	1,178	1,695	7,020	690	70	4,245	2,195	20,754	572
04-Nov-07	748	1,561	1,440	1,206	1,685	7,274	703	71	4,364	2,220	21,272	504
11-Nov-07	769	1,578	1,471	1,200	1,753	7,432	723	74	4,486	2,305	21,791	503
18-Nov-07	787	1,578	1,543	1,288	1,814	7,566	755	78	4,566	2,384	22,358	265
25-Nov-07	790	1,672	1,566	1,303	1,844	7,790	749	80	4,592	2,388	22,775	412
02-Dec-07	795	1,667	1,592	1,355	1,851	7,620	784	83	4,606	2,421	22,774	306
09-Dec-07	800	1,753	1,685	1,420	1,939	8,040	769	87	4,754	2,417	23,664	455
16-Dec-07	805	1,658	1,766	1,538	2,000	8,016	786	90	4,816	2,422	23,898	451
23-Dec-07	837	1,738	1,782	1,536	2,016	8,063	806	91	4,845	2,476	24,190	439
30-Dec-07	789	1,668	1,600	1,380	1,853	7,512	706	92	4,504	2,295	22,399	453
06-Jan-08	847	1,679	1,821	1,606	2,005	7,735	773	77	4,747	2,405	23,694	508
13-Jan-08	818	1,721	1,794	1,546	2,030	7,951	807	89	4,802	2,508	24,067	484
20-Jan-08	835	1,743	1,850	1,584	2,139	8,108	783	93	4,873	2,465	24,473	522
27-Jan-08	826	1,768	1,820	1,568	2,111	8,010	761	93	4,825	2,403	24,185	556
03-Feb-08	815	1,733	1,782	1,556	1,961	8,021	793	92	4,834	2,438	24,025	555
10-Feb-08	807	1,693	1,750	1,517	1,946	7,974	802	91	4,810	2,482	23,871	494
17-Feb-08	819	1,661	1,703	1,468	1,929	7,942	775	88	4,769	2,433	23,585	500
24-Feb-08	786	1,607	1,647	1,450	1,924	7,764	753	83	4,653	2,360	23,026	404
02-Mar-08	761	1,636	1,664	1,461	1,916	7,845	758	84	4,672	2,368	23,164	408
09-Mar-08	774	1,606	1,570	1,396	1,805	7,574	739	80	4,524	2,346	22,412	427
16-Mar-08	734	1,592	1,488	1,303	1,886	7,116	684	77	4,281	2,194	21,354	477
23-Mar-08	719	1,530	1,443	1,252	1,789	7,189	687	77	4,297	2,193	21,176	426
30-Mar-08	706	1,525	1,405	1,224	1,795	6,951	676	72	4,153	2,171	20,677	646
06-Apr-08	699	1,508	1,348	1,169	1,679	6,920	681	74	4,118	2,176	20,372	664
13-Apr-08	687	1,471	1,292	1,105	1,623	6,780	667	71	4,090	2,178	19,964	683
20-Apr-08	685	1,485	1,297	1,141	1,584	6,751	656	69	4,089	2,147	19,904	616
27-Apr-08	746	1,388	1,254	1,119	1,458	6,784	654	62	3,961	2,128	19,555	398
04-May-08	684	1,363	1,292	1,174	1,535	6,599	642	65	4,026	2,031	19,411	709
11-May-08	683	1,370	1,259	1,155	1,528	6,531	639	61	3,980	2,015	19,220	653
18-May-08	694	1,341	1,200	1,121	1,433	7,027	649	58	3,971	2,108	19,602	851
25-May-08	687	1,349	1,245	1,133	1,478	7,611	704	47	4,027	2,332	20,612	1,031
01-Jun-08	681	1,335	1,265	1,147	1,492	7,759	720	48	4,120	2,364	20,932	1,073
08-Jun-08	746	1,373	1,309	1,186	1,565	8,035	751	49	4,303	2,482	21,798	913
15-Jun-08	731	1,333	1,394	1,280	1,668	8,901	828	58	4,724	2,742	23,661	825
22-Jun-08	732	1,324	1,445	1,349	1,723	9,180	921	61	4,821	2,974	24,532	1,127
29-Jun-08	711	1,265	1,400	1,294	1,679	9,150	908	62	4,771	2,806	24,045	782

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

Week	Hourly Non-Coincident Peak Demand (MW)											Zonal Total
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	System	
07-Jan-07	895	1,835	1,815	1,582	1,990	7,814	784	77	4,708	2,432	23,616	23,932
14-Jan-07	935	1,895	2,077	1,525	2,015	7,959	817	88	4,766	2,508	23,985	24,585
21-Jan-07	927	1,877	2,191	1,569	2,123	8,099	800	93	4,832	2,462	24,407	24,973
28-Jan-07	917	1,892	2,088	1,564	2,095	8,005	777	94	4,803	2,404	24,119	24,639
04-Feb-07	926	1,848	2,035	1,548	1,945	8,014	803	89	4,800	2,446	23,953	24,454
11-Feb-07	947	1,761	2,029	1,520	1,931	7,974	812	90	4,775	2,485	23,805	24,324
18-Feb-07	908	1,804	1,888	1,478	1,933	7,933	785	87	4,730	2,434	23,511	23,980
25-Feb-07	875	1,724	1,808	1,410	1,915	7,766	773	88	4,631	2,399	22,960	23,389
04-Mar-07	898	1,764	1,868	1,423	1,915	7,829	769	88	4,641	2,394	23,089	23,589
11-Mar-07	902	1,681	1,750	1,359	1,789	7,563	752	84	4,491	2,370	22,336	22,741
18-Mar-07	830	1,717	1,803	1,335	1,869	7,107	701	84	4,251	2,292	21,291	21,989
25-Mar-07	818	1,631	1,708	1,288	1,772	7,176	705	83	4,267	2,324	21,107	21,772
01-Apr-07	801	1,609	1,684	1,253	1,779	6,948	690	81	4,122	2,251	20,612	21,218
08-Apr-07	803	1,604	1,432	1,188	1,659	6,905	695	77	4,091	2,212	20,310	20,666
15-Apr-07	784	1,566	1,325	1,178	1,605	6,764	687	76	4,063	2,202	19,901	20,250
22-Apr-07	764	1,540	1,304	1,170	1,567	6,781	689	70	4,058	2,199	19,843	20,142
29-Apr-07	789	1,505	1,304	1,143	1,499	6,832	679	68	3,999	2,167	19,478	19,985
06-May-07	787	1,439	1,280	1,157	1,558	6,657	658	69	4,017	2,152	19,383	19,774
13-May-07	776	1,423	1,275	1,130	1,533	6,657	657	63	3,953	2,143	19,159	19,610
20-May-07	778	1,438	1,267	1,117	1,486	7,011	660	62	3,966	2,130	19,528	19,915
27-May-07	756	1,443	1,292	1,104	1,500	7,570	713	75	3,990	2,343	20,490	20,786
03-Jun-07	771	1,422	1,310	1,126	1,517	7,707	726	62	4,089	2,380	20,810	21,110
10-Jun-07	777	1,410	1,322	1,132	1,610	7,762	853	63	4,258	2,754	21,767	21,941
17-Jun-07	817	1,380	1,419	1,244	1,686	8,859	837	59	4,687	2,752	23,538	23,740
24-Jun-07	813	1,385	1,454	1,312	1,733	9,138	930	65	4,785	2,984	24,410	24,599
01-Jul-07	817	1,368	1,440	1,269	1,697	9,102	914	62	4,732	2,816	23,922	24,217
08-Jul-07	765	1,375	1,441	1,259	1,732	8,915	945	74	4,808	2,993	24,053	24,307
15-Jul-07	778	1,370	1,489	1,357	1,815	9,521	898	60	4,906	2,837	24,869	25,031
22-Jul-07	803	1,398	1,530	1,425	1,888	9,513	986	55	4,955	3,084	25,434	25,637
29-Jul-07	792	1,419	1,458	1,343	1,774	9,204	962	54	4,781	3,032	24,572	24,819
05-Aug-07	792	1,392	1,439	1,299	1,766	8,862	900	56	4,745	2,863	23,881	24,114
12-Aug-07	778	1,442	1,479	1,353	1,842	9,134	941	61	4,826	2,949	24,624	24,805
19-Aug-07	797	1,471	1,474	1,338	1,871	8,948	923	58	4,723	2,922	24,351	24,525
26-Aug-07	808	1,488	1,394	1,220	1,743	8,318	920	57	4,561	2,895	23,180	23,404
02-Sep-07	799	1,525	1,415	1,237	1,784	8,637	893	67	4,622	2,802	23,521	23,781
09-Sep-07	754	1,499	1,306	1,132	1,610	8,355	880	59	4,461	2,769	22,548	22,825
16-Sep-07	767	1,489	1,230	1,031	1,570	8,083	862	60	4,350	2,754	21,855	22,196
23-Sep-07	771	1,506	1,209	997	1,624	7,890	842	67	4,276	2,684	21,095	21,866
30-Sep-07	780	1,477	1,244	1,045	1,682	7,416	785	66	4,064	2,506	20,541	21,065

(Table B2 continued)

Hourly Non-Coincident Peak Demand (MW)												
Week	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	System	Zonal Total
07-Oct-07	785	1,539	1,255	1,056	1,665	6,967	699	67	4,117	2,227	19,816	20,377
14-Oct-07	793	1,560	1,539	1,085	1,603	6,927	675	68	4,145	2,195	20,016	20,590
21-Oct-07	813	1,566	1,336	1,128	1,636	6,975	687	67	4,195	2,214	20,426	20,617
28-Oct-07	806	1,617	1,397	1,204	1,695	7,065	703	71	4,245	2,241	20,754	21,044
04-Nov-07	808	1,645	1,440	1,227	1,686	7,274	703	73	4,364	2,220	21,272	21,440
11-Nov-07	841	1,747	1,471	1,211	1,779	7,508	731	75	4,486	2,305	21,791	22,154
18-Nov-07	846	1,755	1,543	1,288	1,814	7,633	755	79	4,566	2,384	22,358	22,663
25-Nov-07	836	1,777	1,608	1,360	1,867	7,790	757	80	4,616	2,388	22,775	23,079
02-Dec-07	869	1,802	1,592	1,357	1,851	7,668	784	85	4,606	2,421	22,774	23,035
09-Dec-07	856	1,825	1,760	1,494	1,943	8,040	803	87	4,773	2,487	23,664	24,068
16-Dec-07	857	1,852	1,784	1,540	2,000	8,103	796	90	4,816	2,468	23,898	24,306
23-Dec-07	890	1,787	1,970	1,536	2,016	8,145	806	91	4,845	2,476	24,190	24,562
30-Dec-07	834	1,806	1,638	1,456	1,896	7,512	732	92	4,531	2,327	22,399	22,824
06-Jan-08	885	1,840	1,821	1,623	2,005	7,817	773	80	4,747	2,405	23,694	23,996
13-Jan-08	908	1,894	2,074	1,567	2,030	7,961	807	90	4,802	2,508	24,067	24,641
20-Jan-08	917	1,867	2,189	1,609	2,139	8,108	791	96	4,873	2,465	24,473	25,054
27-Jan-08	903	1,881	1,997	1,604	2,111	8,010	761	97	4,840	2,403	24,185	24,607
03-Feb-08	915	1,843	2,032	1,587	1,961	8,021	797	92	4,834	2,459	24,025	24,541
10-Feb-08	917	1,768	2,022	1,559	1,948	7,974	802	92	4,810	2,482	23,871	24,374
17-Feb-08	898	1,794	1,870	1,519	1,929	7,942	775	90	4,769	2,433	23,585	24,019
24-Feb-08	860	1,736	1,798	1,452	1,924	7,764	767	90	4,653	2,407	23,026	23,451
02-Mar-08	915	1,758	1,839	1,461	1,916	7,845	766	89	4,673	2,415	23,164	23,677
09-Mar-08	892	1,684	1,741	1,396	1,805	7,574	741	87	4,524	2,370	22,412	22,814
16-Mar-08	821	1,717	1,804	1,379	1,886	7,116	687	86	4,281	2,281	21,354	22,058
23-Mar-08	806	1,638	1,713	1,336	1,789	7,189	692	86	4,297	2,312	21,176	21,858
30-Mar-08	791	1,616	1,684	1,301	1,795	6,951	676	84	4,153	2,240	20,677	21,291
06-Apr-08	794	1,594	1,440	1,233	1,679	6,920	681	80	4,118	2,201	20,372	20,740
13-Apr-08	771	1,563	1,316	1,223	1,625	6,780	676	79	4,090	2,190	19,964	20,313
20-Apr-08	755	1,546	1,305	1,211	1,584	6,757	680	73	4,089	2,192	19,904	20,192
27-Apr-08	776	1,511	1,314	1,191	1,516	6,845	668	70	4,028	2,155	19,555	20,074
04-May-08	776	1,436	1,292	1,226	1,579	6,637	642	73	4,026	2,132	19,411	19,819
11-May-08	765	1,426	1,287	1,171	1,552	6,676	649	65	3,980	2,139	19,220	19,710
18-May-08	770	1,438	1,280	1,161	1,502	7,027	653	65	3,999	2,120	19,602	20,015
25-May-08	745	1,445	1,308	1,151	1,516	7,611	707	78	4,032	2,346	20,612	20,939
01-Jun-08	754	1,431	1,328	1,179	1,536	7,759	721	65	4,120	2,366	20,932	21,259
08-Jun-08	768	1,413	1,345	1,187	1,594	8,035	805	66	4,303	2,683	21,798	22,199
15-Jun-08	797	1,381	1,435	1,280	1,699	8,901	830	62	4,724	2,753	23,661	23,862
22-Jun-08	798	1,369	1,469	1,349	1,746	9,180	923	63	4,821	2,985	24,532	24,703
29-Jun-08	798	1,393	1,455	1,312	1,709	9,150	908	65	4,771	2,818	24,045	24,379

- 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	8,090 MWh Increase	
	10°C > and < 16° C	1°C Increase	1,520 MWh Increase	
	< 10°C	1°C Decrease	2,660 MWh Increase	
	<b>Daily Humidity - Dewpoint</b>			
	> 16° C	1°C Increase	2,940 MWh Increase	
	10°C > and < 16° C	1°C Increase	550 MWh Increase	
	< 10°C	1°C Decrease	970 MWh Increase	
	<b>Wind</b>			
	Summer	1 km/hr Decrease	370 MWh Increase	
Winter	1 km/hr Increase	10 MWh Increase		
Cloud				
	Summer	Decrease of 1 on Scale	1,210 MWh Decrease	
Winter	Increase of 1 on Scale	1,380 MWh Increase		
Economic	<b>Employment</b>	Increase of 1,000 jobs	20 MWh Increase	
	<b>Housing Stock</b>	Increase of 1,000 houses	30 MWh Increase	
Calendar	<b>Holidays</b>	New Year's Day	66,000 MWh Decrease	
		Good Friday	45,000 MWh Decrease	
		Victoria Day	54,000 MWh Decrease	
		Canada Day	38,000 MWh Decrease	
		August Civic Holiday	39,000 MWh Decrease	
		Labour Day	53,000 MWh Decrease	
		Thanksgiving Day	55,000 MWh Decrease	
		Remembrance Day	8,000 MWh Decrease	
		Christmas	82,000 MWh Decrease	
		Boxing Day	77,000 MWh Decrease	
		<b>Day of Week</b>	New Year's Eve	5,000 MWh Decrease
			Monday vs Sunday	46,000 MWh Increase
	Tuesday vs Sunday		48,000 MWh Increase	
	Wednesday vs Sunday		49,000 MWh Increase	
	Thursday vs Sunday	48,000 MWh Increase		
	Friday vs Sunday	45,000 MWh Increase		
Saturday vs Sunday	10,000 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	450 MW Increase	
	10°C > and < 16° C	1°C Increase	110 MW Increase	
	< 10°C	1°C Decrease	110 MW Increase	
	<b>Humidity - Dewpoint</b>			
	> 16° C	1°C Increase	160 MW Increase	
	10°C > and < 16° C	1°C Increase	40 MW Increase	
	< 10°C	1°C Decrease	40 MW Increase	
	<b>Wind</b>			
	Summer	1 km/hr Decrease	14 MW Increase	
Winter	1 km/hr Increase	10 MW Increase		
Cloud				
	Summer	Decrease of 1 on Scale	110 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	2,700 MW Decrease	
		Good Friday	2,000 MW Decrease	
		Victoria Day	2,400 MW Decrease	
		Canada Day	1,700 MW Decrease	
		August Civic Holiday	1,500 MW Decrease	
		Labour Day	2,100 MW Decrease	
		Thanksgiving Day	2,500 MW Decrease	
		Remembrance Day	300 MW Decrease	
		Christmas	4,300 MW Decrease	
		Boxing Day	3,500 MW Decrease	
		New Year's Eve	500 MW Decrease	
		<b>Day of Week</b>	Monday vs Sunday	2,100 MW Increase
			Tuesday vs Sunday	2,000 MW Increase
			Wednesday vs Sunday	2,000 MW Increase
	Thursday vs Sunday		2,000 MW Increase	
	Friday vs Sunday	1,600 MW Increase		
Saturday vs Sunday	100 MW Increase			

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