

Independent Electricity Market Operator

Ontario Demand Forecast
from April 2003 to September 2004



Executive Summary

The IMO has a responsibility to forecast the demand for electricity on the IMO-controlled grid and to assess whether the existing and proposed generation and transmission facilities are adequate to meet Ontario's needs. This document looks at the demand forecast for the 18-month period from April 2003 to September 2004 and supercedes the previous 18-month forecast released in December 2002. This forecast is consistent with the 10-year forecast - released in April 2003 - over the common time frame of 2004.

The current and previous 18-month demand forecasts are very similar. A slightly higher economic outlook for 2003 has pushed up energy demand throughout the remainder of the year. As well, peak demands are higher throughout the remainder of 2003 for the same reason.

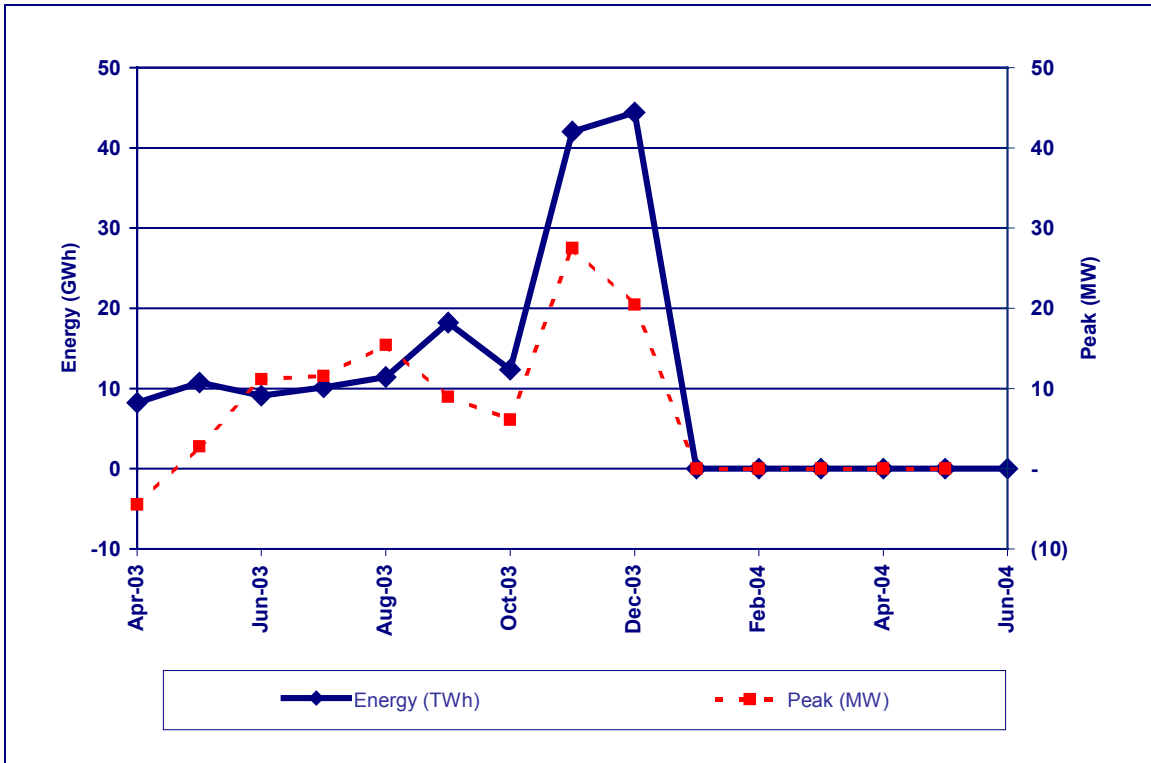
The economic assumptions that underpin the forecast have been updated to reflect the most recent outlook for the Ontario economy. The prospects for the Canadian, and in turn the Ontario, economy remain relatively buoyant considering the current political tensions. Generally, periods of conflict impact the economy negatively as consumers tend to pull back on spending. The Canadian economy is therefore showing impressive strength given the political climate, the poor stock market performance and the weak U.S. economy. Presently, the outlook for the Canadian economy continues to be quite optimistic vis-à-vis the other developed nations of the world. However, the risk to the economic forecast is heavily on the downside, as world events will play a big role in shaping Canadian economic growth over the next year and a half. Table 1 has the Normal weather, Expected seasonal and Extreme weather peak demands for the seasons of the 18-month forecast. More detail on the determination of the Expected seasonal peaks can be found in Section 4.2.

Table 1: Forecasted Peak Demands

Season	Normal Weather Peak (MW)	Expected Seasonal Peak (MW)	Extreme Weather Peak (MW)
Summer 2003	23,684	25,580	26,397
Winter 2004	24,112	25,252	25,878
Summer 2004	24,014	25,912	26,710

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

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



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1.0 Introduction

1.1 Outlook Documents

The Ontario Electricity Market Rules (Chapter 5 Section 7.1) require that the Independent Electricity Market Operator (IMO) produce and publish demand forecasts on a quarterly basis for the next 18 months. This Ontario Demand Forecast meets this requirement and covers the 18-month period from April 2003 to September 2004. It supercedes the previous forecast for the period January 2003 to June 2004, dated December 23, 2002.

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 titled [Methodology to Perform Long Term Assessments \(IMP_REP_0044\)](#). Readers may envision other possible 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.

The Ontario demand is the sum of coincident loads plus the losses on the IMO-controlled grid. This demand forecast was based on actual demand, weather and economic data as of January 2003. Actuals reported since the time of the forecast have been incorporated into the tables and figures of this document.

Section 2.0 briefly looks at historical demand. A more detailed discussion of historical demand and the factors that shape it can be found in the 10-Year Ontario Demand Forecast (IMO_REP_0098) document. Section 3.0 describes the assumptions used in this forecast of electricity demand and Section 4.0 presents the forecast. Appendices A through C contains additional demand forecast details and analysis.

Readers are invited to provide comments on this report or to give suggestions as to the content of future reports. To do so, please call the IMO Help Centre at 905-403-6900 or 1-888-448-7777 or send an email to helpcentre@theIMO.com, or to forecasts.demand@theIMO.com. Copies of the forecast, by hour and zone are available upon request.

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2.0 Historical Demand

This section looks at recent historical energy and peak demand. Energy demand represents the total consumption of electricity over a specified period of time, typically a day, week, month, season or year. Peak demand represents the maximum requirement for electricity over an hour. Ontario measures peak demand as the average over the course of a clock hour. Peaks are classified by the time horizon used: daily, weekly, monthly, seasonal or annual peak.

2.1 Historical Energy Demand

Actual energy demand has averaged annual growth of 2.0% over the 1997 to 2002 time frame. This period spans a period of strong economic growth. Throughout the 1990's there has been a dramatic increase in cooling load as air conditioning has become commonplace in new homes. Over the same time frame, much of the heating load has switched to natural gas. Therefore, the growth in energy demand has not been consistent across all seasons. For the 1997-2002 time frame, actual winter energy demand has averaged annual growth of 0.5% whereas actual summer energy demand has averaged growth of 3.5% per annum. Of course, this is biased by the weather of either the base or most recent year, but gives a fair representation of the fact that demand is not growing evenly throughout the year. Table 2.1 shows monthly energy demand for the last three years.

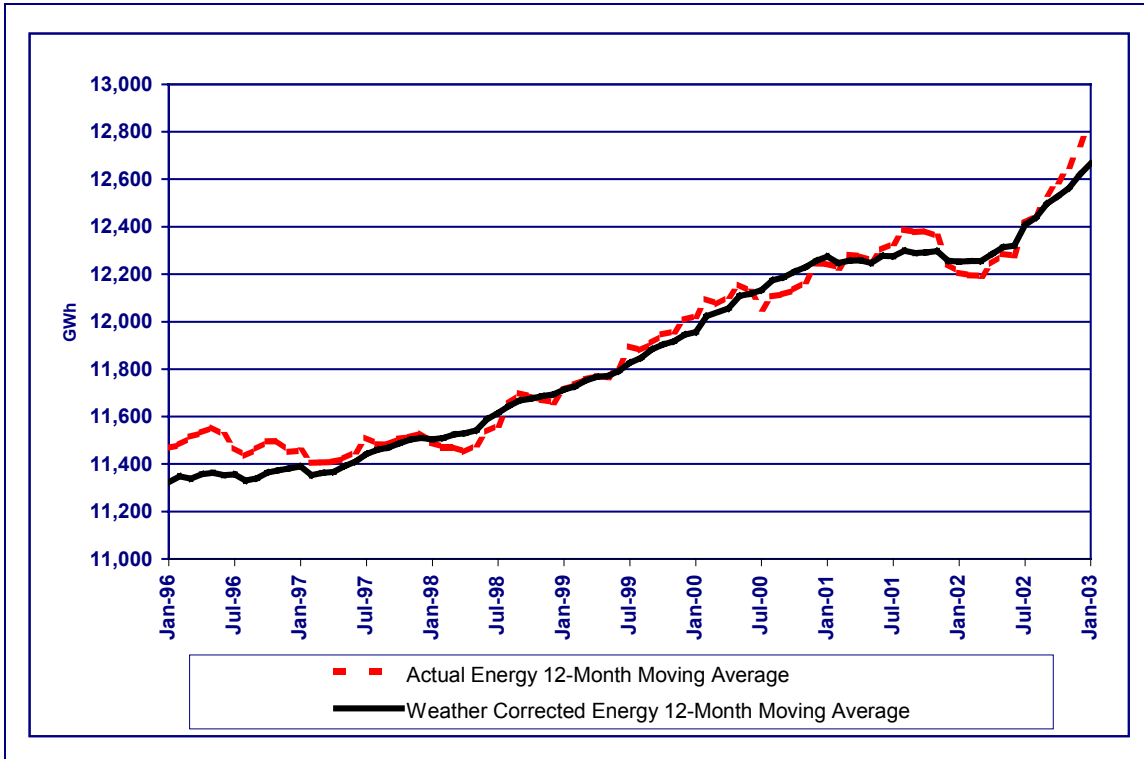
Table 2.1: Actual and Weather Corrected Monthly Energy Demand

Month	2000		2001		2002	
	Actual Energy (GWh)	Weather Corrected Energy (GWh)	Actual Energy (GWh)	Weather Corrected Energy (GWh)	Actual Energy (GWh)	Weather Corrected Energy (GWh)
January	13,639	13,572	13,626	13,799	13,184	13,739
February	12,464	12,721	12,262	12,392	12,134	12,438
March	12,222	12,693	12,871	12,820	12,850	12,820
April	11,290	11,246	11,212	11,253	11,819	11,608
May	11,602	11,493	11,382	11,352	11,875	11,690
June	11,704	11,584	12,264	11,940	12,185	12,023
July	12,074	12,492	12,402	12,483	14,033	13,544
August	12,679	12,600	13,363	12,884	13,749	13,254
September	11,615	11,443	11,482	11,331	12,593	12,004
October	11,707	11,730	11,769	11,745	12,398	12,119
November	12,165	12,135	11,878	12,203	12,656	12,626
December	13,785	13,360	12,402	12,880	13,484	13,561
Total	146,945	147,070	146,912	147,081	152,960	151,426

The last three years contain the two mildest winters (2000 and 2002) and the hottest summer (2002) since 1970. Therefore, the recent history has not been “typical” by historical standards. The winter of 2003 (to date) seems to be unusually cold but really represents a return to more “typical” winters.

Figure 2.1 shows the 12-month moving average of actual and weather corrected energy demand. As can be seen in the graph, energy demand has been quite strong since the middle of 2002. The overall profile has been driven by the economic expansion of the past decade.

Figure 2.1: Energy Demand – 12 Month Moving Average



2.2 Historical Peak Demand

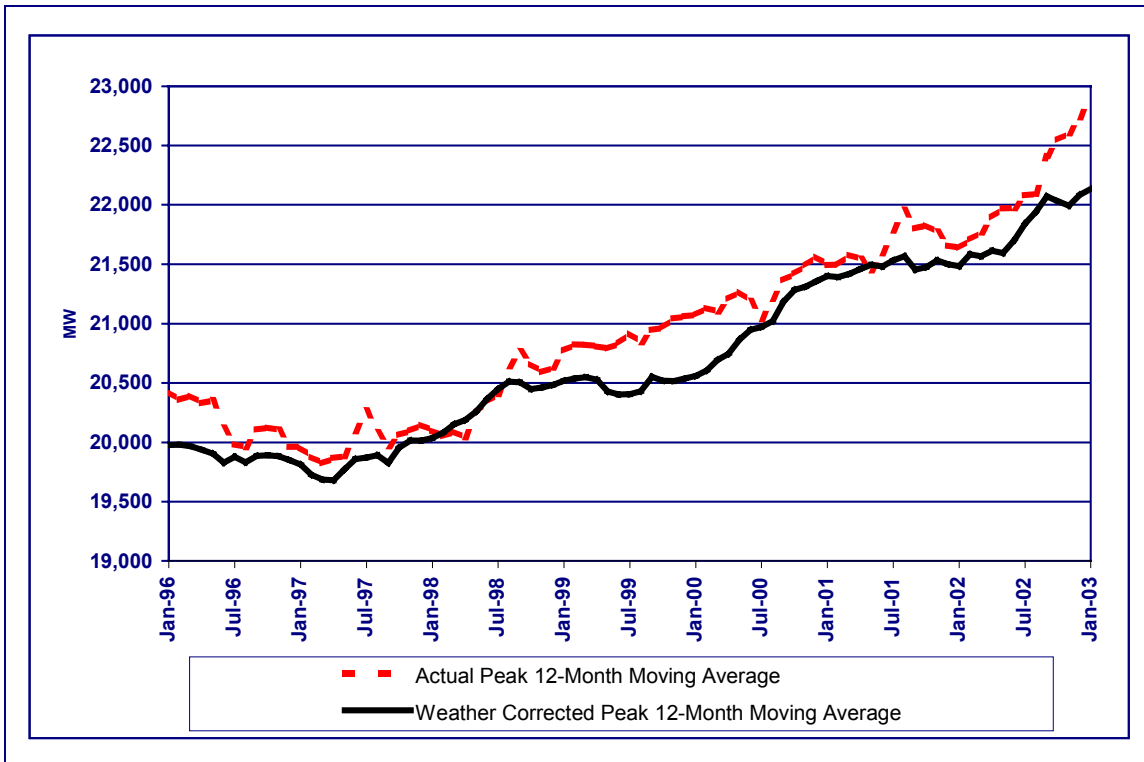
The actual annual peak demand has averaged growth of 2.9% over the 1997 to 2002 time frame. For that period, four of the six annual peaks have been summer peaks. This represents a departure from the longer system history. Prior to 1998, the system was always winter peaking. On a weather-corrected basis, the system became summer peaking in 2002. The system has shown terrific growth in cooling load, while heating load has remained almost stagnant.

Table 2.2 has the actual and weather-corrected monthly peak demands for the last three years. Figure 2.2 displays the 12-month moving average of both actual and weather-corrected peak demands. Peak demand has shown continuous growth over the time frame of the graph. Much of this is due to the growth in cooling load with the high levels of residential construction of the latter 1990’s and turn of the century. As well, economic activity helps to increase peak demand by increasing the base upon which the peaks stand.

Table 2.2: Actual and Weather Corrected Monthly Peak Demand

Month	2000		2001		2002	
	Actual Peak (MW)	Weather Corrected Peak (MW)	Actual Peak (MW)	Weather Corrected Peak (MW)	Actual Peak (MW)	Weather Corrected Peak (MW)
January	23,301	22,539	22,432	23,062	22,191	22,884
February	21,759	22,239	21,795	22,145	22,623	23,320
March	20,162	21,367	21,165	21,672	21,886	21,481
April	19,265	18,953	18,852	19,439	20,386	19,989
May	20,313	19,156	19,144	19,556	20,068	19,318
June	21,851	22,066	23,550	21,912	23,578	23,225
July	21,616	21,977	23,966	22,609	25,226	24,296
August	23,160	22,101	25,239	22,531	25,414	23,713
September	23,107	22,141	21,238	20,771	25,062	22,321
October	19,259	19,705	19,591	19,967	21,216	19,492
November	21,862	21,291	21,178	21,962	21,862	21,497
December	23,126	22,754	21,741	22,373	23,334	23,500
Annual Peak	23,301	22,754	25,239	23,062	25,414	24,296

Figure 2.2: Peak Demand – 12 Month Moving Average



Weekly or monthly peak demands usually occur during episodes of severe weather conditions on a weekday or non-holiday. Table 2.3 shows the monthly peaks and associated details for the period January 2001 through to the present.

Table 2.3: Monthly Peak Demand Details

Month	Peak Demand Details				
	Peak (MW)	Peak Date	Day of Week	Peak Day Temperature (High)	Weather Corrected Peak (MW)
Jan-01	22,432	09-Jan-01	Tue	-4.9	23,062
Feb-01	21,795	21-Feb-01	Wed	-8.3	22,145
Mar-01	21,165	05-Mar-01	Mon	-2.5	21,672
Apr-01	18,852	02-Apr-01	Mon	6.0	19,439
May-01	19,144	03-May-01	Thu	30.4	19,556
Jun-01	23,550	27-Jun-01	Wed	30.9	21,912
Jul-01	23,966	24-Jul-01	Tue	31.8	22,609
Aug-01	25,239	08-Aug-01	Wed	37.2	22,531
Sep-01	21,238	07-Sep-01	Fri	29.0	20,771
Oct-01	19,591	30-Oct-01	Tue	7.4	19,967
Nov-01	21,178	29-Nov-01	Thu	2.2	21,962
Dec-01	21,741	17-Dec-01	Mon	4.1	22,373
Jan-02	22,191	14-Jan-02	Mon	0.7	22,884
Feb-02	22,623	04-Feb-02	Mon	-10.0	23,320
Mar-02	21,886	04-Mar-02	Mon	-6.8	21,481
Apr-02	20,386	02-Apr-02	Tue	1.0	19,989
May-02	20,068	30-May-02	Thu	27.9	19,318
Jun-02	23,578	26-Jun-02	Wed	30.7	23,225
Jul-02	25,226	03-Jul-02	Wed	34.7	24,296
Aug-02	25,414	13-Aug-02	Tue	34.6	23,713
Sep-02	25,062	09-Sep-02	Mon	33.5	22,321
Oct-02	21,216	01-Oct-02	Tue	28.8	19,492
Nov-02	21,862	28-Nov-02	Thu	0.8	21,497
Dec-02	23,334	09-Dec-02	Mon	-1.2	23,500
Jan-03	24,158	22-Jan-03	Wed	-13.4	23,457

The weather-corrected peak for the summer of 2002 is unusual in that demand was exceedingly high given the weather conditions for that particular day. Initially, it was believed that there must be a metering or data error as the demand values represented a substantial deviation from the anticipated or expected value. For this reason, the weather-corrected peak demand for 2002 is treated as anomalous. Given the circumstances for the day, the weather-corrected peak should be roughly 700 MW lower than it is. As well, the peak for January 2003 would have been roughly 430 MW higher had voltage reductions not been implemented.

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3.0 Forecasting Process and Assumptions

A detailed description of the forecasting methodology can be found in the document [Methodology to Perform Long Term Assessments \(IMP_REP_0044\)](#). In addition to the methodology described in the document, the forecast of electricity demand requires inputs and/or assumptions with respect to the three classes of drivers. This section looks at how each of the drivers is generated for the forecast.

3.1 Weather Drivers for Forecast

Since forecasting weather, in the detail required to produce an hourly forecast of demand, is quite problematic, weather scenarios are generated based on historical data. Two scenarios – Normal and Extreme – are utilized in the IMO’s assessments. As well, Load Forecast Uncertainty (LFU), a measure of demand fluctuations due to weather variability, is also a critical part of the analysis.

Normal weather is based on historical data and is composed by ranking the weather within each historical week, then taking the average of each of the ranked days. In this way, the Normal weather for each week would have both hotter and colder days.

The Extreme weather scenario is also based on historical weather but uses minimums and maximums rather than the average used in the Normal weather scenario.

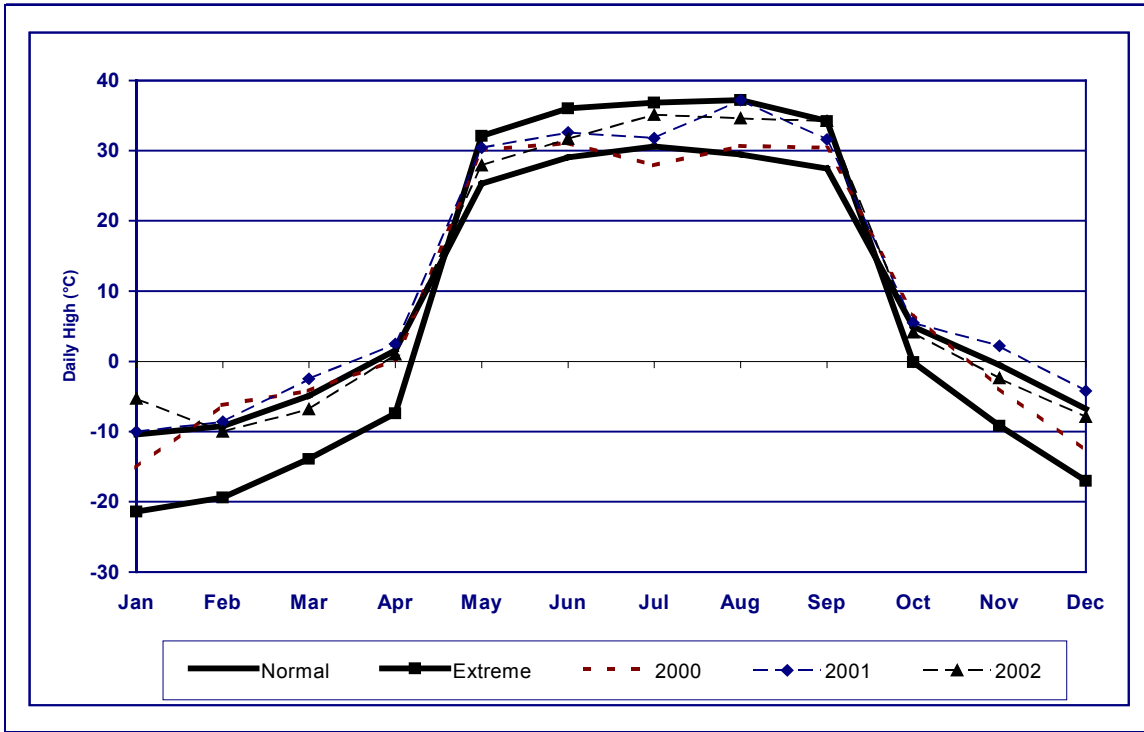
Load Forecast Uncertainty (LFU) represents one standard deviation in the weather elements underpinning the peak demand. LFU could be expressed in terms of °C, km/h or MW depending on whether you are discussing temperature, wind speed or peak demand.

The Normal weather scenario, in conjunction with 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 is used in conjunction with a measure of LFU to consider a full range of peak demands that can occur with 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 energy demand standpoint, as severe weather conditions do not persist over a long time horizon.

Figure 3.1 shows the monthly maximum (May to September) or minimum (October through to April) temperatures for the Normal and Extreme weather scenarios. It also includes the actual maximums and minimums for 2000-2002. Generally, the actual data falls between the Normal and Extreme weather scenarios for the summers. However, the actuals are near or milder than the Normal weather scenario in the winters. This is consistent with the hotter summers and milder winters experienced in recent history.

Figure 3.1: Weather Scenarios & Actual Monthly Temperatures



3.2 Calendar Drivers for Forecast

Calendar variables are addressed in the [Methodology](#) document.

3.3 Economic Drivers for Forecast

To produce both an energy and peak demand forecast, an economic forecast of various drivers is required. A consensus of four major, publicly available provincial forecasts was utilized to generate the economic drivers used in the demand forecast. Table 3.1 summarizes the key economic drivers for energy and peak demand on the IMO-controlled grid.

Table 3.1: Forecasted Ontario Economic Drivers

Year	Ontario Employment		Ontario Housing Starts	
	Thousands	Annual Growth (%)	Thousands	Annual Growth (%)
1995	5,128	2.0	31.9	(23.3)
1996	5,175	0.9	39.5	23.9
1997	5,298	2.4	50.0	26.5
1998	5,476	3.4	50.1	0.2
1999	5,672	3.6	62.9	25.6
2000	5,856	3.2	67.4	7.1
2001	5,962	1.8	70.3	4.2
2002 (f)	6,052	1.5	79.9	13.8
2003 (f)	6,174	2.0	72.7	(9.0)
2004 (f)	6,278	1.7	67.1	(7.7)

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4.0 Demand Forecast

The demand forecast is split into two separate parts, the energy demand forecast and the peak 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.

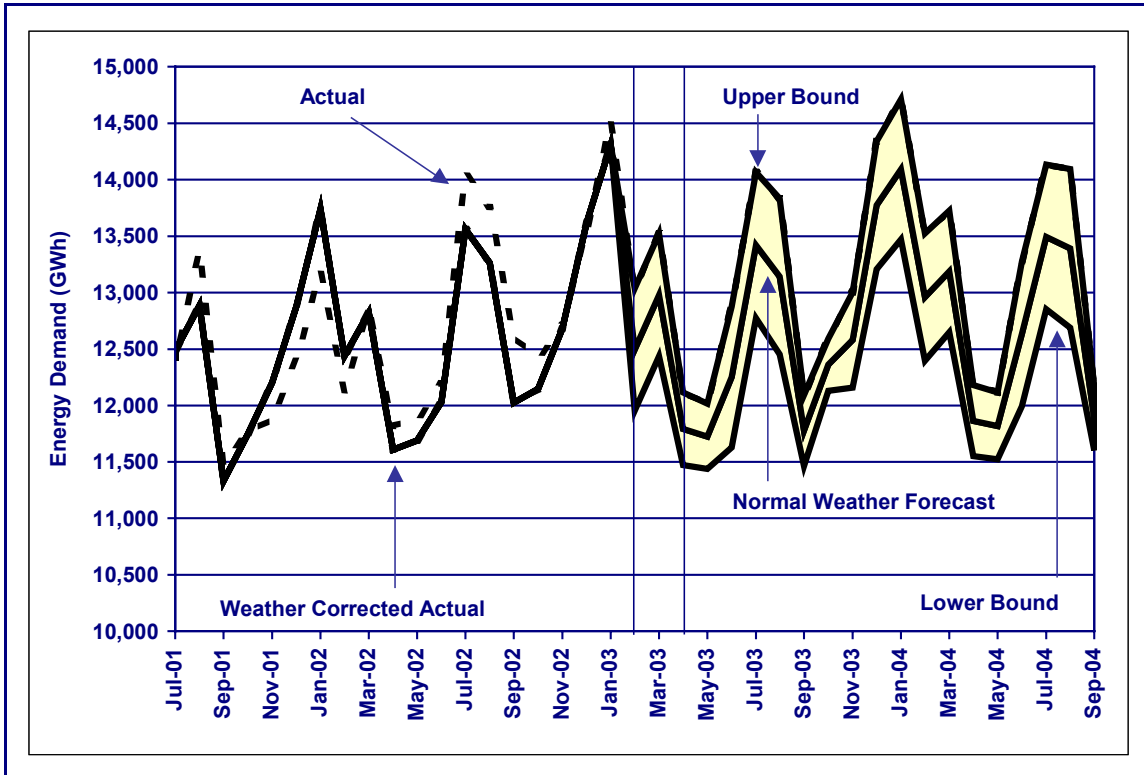
4.1 Energy Demand Forecast

The predicted monthly system energy demand is contained in Table 4.1. This table contains the forecast of energy demand under the Normal and Extreme weather scenarios. The values for 2004 are consistent with the 10-Year Ontario Demand Forecast released April 2003. Economic growth and increasing cooling load are driving demand growth. Figure 4.1 shows the monthly peak demands under Normal weather. The upper bound is derived under the Extreme weather scenario.

Table 4.1: Forecasted Ontario Monthly Energy Demand

Month	Energy Demand - Normal Weather	Energy Demand - Extreme Weather
	(GWh)	(GWh)
Apr-03	11,793	12,442
May-03	11,726	12,653
Jun-03	12,253	13,669
Jul-03	13,418	14,788
Aug-03	13,142	14,679
Sep-03	11,778	12,631
Oct-03	12,361	12,847
Nov-03	12,579	13,408
Dec-03	13,773	14,986
Jan-04	14,090	15,233
Feb-04	12,959	14,191
Mar-04	13,186	14,228
Apr-04	11,865	12,488
May-04	11,818	12,793
Jun-04	12,633	14,056
Jul-04	13,492	14,867
Aug-04	13,391	14,941
Sep-04	11,886	12,674

Figure 4.1: Monthly Energy Demand – Weather Scenarios



4.2 Peak Demand Forecast

The main aspect of the peak demand forecast is the difference in the growth of the winter and summer peaks. The summer peaks are growing faster than the winter peaks as cooling load continues to grow while the heating load remains stagnant.

Table 4.2 shows the forecast of monthly peak demands. The table shows the peaks under the Normal, Normal + 1 LFU and Extreme weather scenarios. In addition, the table contains the Expected seasonal peak demand. The Expected seasonal peaks are derived using the Normal peak demands and the Load Forecast Uncertainty (LFU). The Expected seasonal peak recognizes that over the course of a season, it is likely that at least one of the weekly peaks will be exceeded.

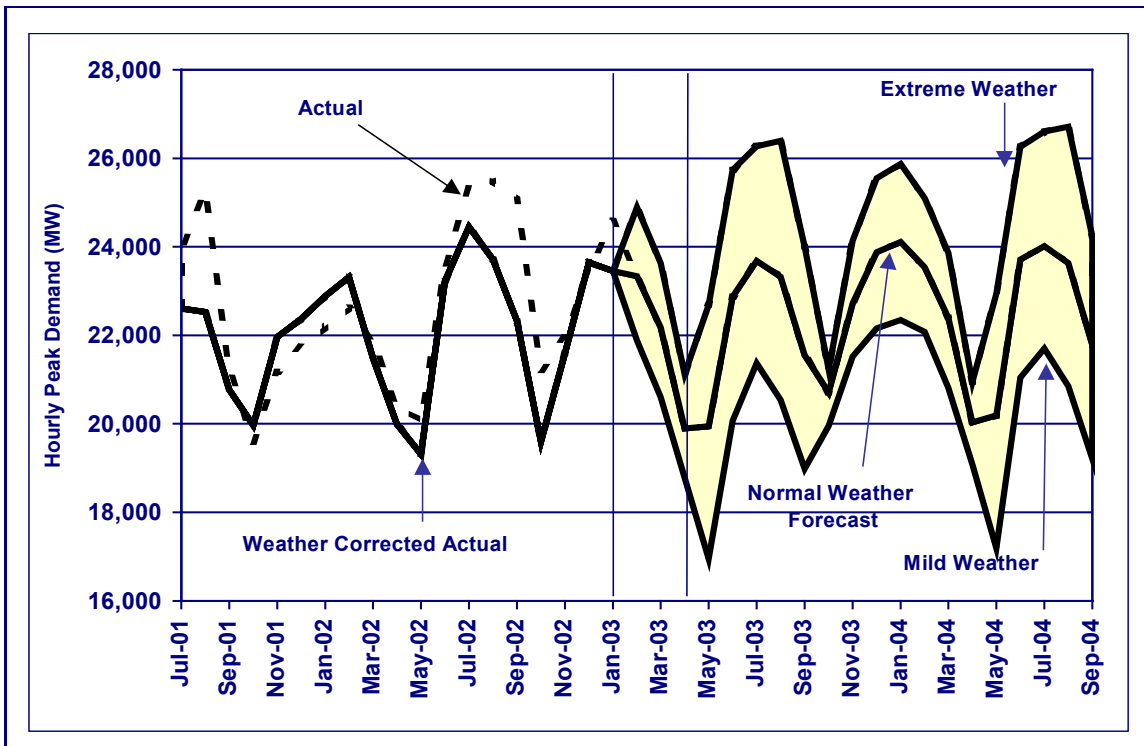
Figure 4.2 shows the monthly peak demands under three weather scenarios. The Mild weather scenario is derived from the mildest historical data. The Normal weather peak demand forecast is roughly in the center of the band and the Extreme weather scenario constitutes the upper bound of the graph.

The resource adequacy assessments take into consideration the full range of possible weather conditions on a probabilistic basis. Results are presented assuming Normal weather as a base. Allowance for the probability of demand being higher than those assumed in the base case is made in the calculation of the required reserve level. This assessment is based on the assumption that between 0 MW and 300 MW of demand is price responsive.

Table 4.2: Forecasted Ontario Monthly Peak Demand

Seasonal Year	Normal Weather Peak Demand	Normal + 1 LFU Weather Peak Demand	Expected Seasonal Peak Demand	Extreme Weather Peak Demand
	(MW)	(MW)	(MW)	(MW)
Apr-03	19,895	20,453	21,443	21,125
May-03	19,942	21,436	21,443	22,686
Jun-03	22,875	24,278	25,580	25,740
Jul-03	23,684	24,841	25,580	26,270
Aug-03	23,321	24,713	25,580	26,397
Sep-03	21,554	22,838	22,854	24,001
Oct-03	20,708	21,084	22,854	21,230
Nov-03	22,720	23,318	25,252	24,143
Dec-03	23,881	24,742	25,252	25,552
Jan-04	24,112	24,995	25,252	25,878
Feb-04	23,538	24,267	25,252	25,105
Mar-04	22,400	23,192	25,252	23,865
Apr-04	20,026	20,495	21,708	20,944
May-04	20,186	21,683	21,708	22,935
Jun-04	23,711	25,043	25,912	26,257
Jul-04	24,014	25,173	25,912	26,604
Aug-04	23,631	25,024	25,912	26,710
Sep-04	21,783	23,070	22,938	24,235

Figure 4.2: Monthly Peak Demand – Weather Scenarios



4.3 Comparison of Current Forecast to Previous 18-Month Forecast

This 18-month forecast can be compared to the previous one published December 23, 2002. The only impact on the forecast has been the improved economic outlook at this time. As well, the system continues to exhibit increased heat sensitivity through increased space cooling penetration and growth.

With respect to the forecasting methodology, this forecast uses the same methodology as the previous forecast. The only difference has been the introduction of the Expected seasonal peaks.

The economic outlook has improved for 2003 and 2004 as Canada's economy has experienced modest growth despite the struggling U.S. economy and political uncertainty. In fact, Canada is expected to enjoy some of the best growth amongst the developed nations of the world.

The economic outlook has pushed up total energy demand both in terms of the growth rate and the levels. The forecast of energy demand is 0.5 TWh higher in 2003. The summer 2003 peak is 12 MW higher than previously forecasted. The Expected seasonal peaks are 25,580 MW (summer 2003) 25,252 MW (winter 2004) and 25,912 MW (summer 2004). The Expected seasonal peaks were not included in the previous forecast. Otherwise the two forecasts are very similar.

Table 4.2 shows some of the differences between the current and previous forecast.

Table 4.3: Current Versus Previous Forecast

Month	Energy Demand	Normal Weather Peak Demand	Extreme Weather Peak Demand
	(GWh)	(MW)	(MW)
Apr-03	11,793	19,895	21,125
Difference (Current - Previous)	8.2	-4	-10
Jul-03	13,418	23,684	26,270
Difference (Current - Previous)	10.2	12	8
Oct-03	12,361	20,708	21,230
Difference (Current - Previous)	12.4	6	4
Jan-04	14,090	24,112	25,878
Difference (Current - Previous)	0.0	0	0
Apr-04	11,865	20,026	20,944
Difference (Current - Previous)	0.0	0	0

- End of Section -

Appendix A - Energy Demand Forecast Details

Table A1: Monthly Zonal Energy Forecast, Normal Weather

Week Ending	Weekly Energy (GWh)										
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	Total System
6-Apr-03	151	220	196	172	167	936	118	6	542	312	2,821
13-Apr-03	153	216	198	165	163	928	118	7	537	312	2,797
20-Apr-03	150	209	195	165	152	888	115	7	519	302	2,701
27-Apr-03	147	202	193	167	149	892	115	6	522	304	2,699
4-May-03	147	195	192	168	146	885	114	6	519	302	2,674
11-May-03	146	191	189	167	145	881	113	6	519	299	2,655
18-May-03	144	191	188	164	145	881	113	6	517	299	2,647
25-May-03	141	193	188	158	144	864	112	6	503	297	2,606
1-Jun-03	142	190	188	158	151	906	115	6	518	309	2,684
8-Jun-03	143	191	178	146	171	970	121	6	537	342	2,805
15-Jun-03	143	187	181	148	176	994	122	6	560	343	2,862
22-Jun-03	143	185	182	150	178	1,008	123	7	576	339	2,890
29-Jun-03	143	184	183	152	178	1,025	125	7	587	330	2,915
6-Jul-03	138	183	187	155	184	1,055	127	7	600	331	2,968
13-Jul-03	138	183	189	156	191	1,073	129	6	600	346	3,012
20-Jul-03	139	185	189	158	194	1,085	129	5	588	363	3,036
27-Jul-03	139	186	185	156	192	1,065	126	5	574	377	3,005
3-Aug-03	140	185	184	155	192	1,066	126	6	575	379	3,008
10-Aug-03	142	189	180	150	188	1,044	127	6	565	375	2,966
17-Aug-03	142	192	181	151	190	1,053	128	6	572	378	2,993
24-Aug-03	143	198	180	149	189	1,048	128	6	571	376	2,989
31-Aug-03	144	203	181	149	191	1,054	130	7	575	381	3,015
7-Sep-03	135	199	182	145	164	949	119	7	535	333	2,769
14-Sep-03	142	200	178	140	167	954	119	8	537	328	2,771
21-Sep-03	144	200	172	131	169	941	116	7	528	318	2,725
28-Sep-03	146	200	170	128	171	938	115	7	525	313	2,714
5-Oct-03	149	204	173	130	173	936	115	7	520	312	2,720
12-Oct-03	150	209	182	142	173	940	116	7	526	311	2,754
19-Oct-03	149	214	188	151	170	921	114	7	523	308	2,745
26-Oct-03	150	218	198	163	172	946	118	7	542	316	2,829
2-Nov-03	151	219	192	156	170	953	118	8	539	319	2,825
9-Nov-03	155	221	204	168	177	962	122	9	551	325	2,892
16-Nov-03	158	223	211	175	182	984	123	9	561	329	2,954
23-Nov-03	159	226	217	181	184	995	123	9	568	331	2,993
30-Nov-03	159	228	223	187	186	1,003	123	9	577	333	3,028
7-Dec-03	164	232	231	196	192	1,026	124	9	592	338	3,103
14-Dec-03	164	235	236	200	195	1,030	125	9	597	339	3,128
21-Dec-03	164	237	240	204	198	1,041	126	9	602	342	3,164
28-Dec-03	152	228	235	202	194	997	119	8	576	333	3,045

Table A1 – continued

Month	Weekly Energy (GWh)										Total System
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	
04-Jan-04	158	233	232	196	191	985	118	8	564	323	3,009
11-Jan-04	168	242	246	209	206	1,053	128	8	609	348	3,216
18-Jan-04	168	241	244	207	204	1,044	127	9	606	346	3,196
25-Jan-04	167	239	242	206	201	1,039	127	9	605	345	3,181
01-Feb-04	168	240	245	209	203	1,049	128	9	611	348	3,208
08-Feb-04	166	237	243	207	201	1,048	128	9	610	347	3,195
15-Feb-04	166	235	239	204	197	1,039	127	9	605	344	3,166
22-Feb-04	165	231	232	198	190	1,019	126	9	594	338	3,103
29-Feb-04	164	230	232	198	191	1,024	127	9	591	337	3,103
07-Mar-04	162	225	226	195	186	1,005	126	9	580	332	3,047
14-Mar-04	160	222	222	195	182	990	125	9	575	330	3,011
21-Mar-04	157	217	217	193	176	968	124	8	567	326	2,954
28-Mar-04	153	213	209	190	169	934	122	8	553	319	2,869
04-Apr-04	152	217	204	182	170	947	121	7	554	320	2,873
11-Apr-04	154	214	198	163	162	923	117	7	535	313	2,785
18-Apr-04	151	208	199	170	157	919	119	7	536	314	2,780
25-Apr-04	148	202	195	170	151	905	117	6	530	310	2,734
02-May-04	147	195	194	170	148	897	116	6	526	308	2,706
09-May-04	146	190	192	169	147	894	114	6	527	305	2,690
16-May-04	144	190	191	166	146	893	114	6	525	305	2,681
23-May-04	143	189	191	164	148	900	116	6	524	307	2,689
30-May-04	141	192	192	160	147	888	115	7	511	306	2,658
06-Jun-04	143	190	182	150	171	979	122	6	542	347	2,833
13-Jun-04	143	188	183	150	179	1,013	125	6	568	353	2,908
20-Jun-04	143	185	184	151	181	1,025	126	7	584	349	2,935
27-Jun-04	143	184	185	154	181	1,043	127	7	596	341	2,960
04-Jul-04	140	183	188	157	187	1,071	129	7	609	339	3,010
11-Jul-04	138	183	191	159	193	1,092	131	7	611	353	3,058
18-Jul-04	139	185	191	160	197	1,103	131	6	600	369	3,082
25-Jul-04	139	185	187	158	195	1,084	129	5	584	383	3,050
01-Aug-04	140	184	185	157	195	1,083	128	6	584	387	3,049
08-Aug-04	142	188	182	152	191	1,062	129	6	574	383	3,008
15-Aug-04	143	191	183	153	193	1,070	130	6	581	386	3,036
22-Aug-04	143	196	182	151	192	1,066	130	6	580	384	3,031
29-Aug-04	145	202	182	151	193	1,072	132	7	585	389	3,058
05-Sep-04	142	201	185	151	173	999	125	7	561	353	2,897
12-Sep-04	138	197	178	139	165	945	118	7	532	329	2,748
19-Sep-04	144	198	175	135	169	952	117	7	536	323	2,757
26-Sep-04	146	199	173	131	172	950	116	7	533	319	2,746
03-Oct-04	149	202	175	133	174	948	116	7	529	318	2,750

- End of Section -

Appendix B - Peak Demand Forecast Details

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

Week	Hourly Coincident Peak Demand (MW)											Load Forecast Uncertainty
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	Total System	
06-Apr-03	924	1,357	1,391	1,413	1,239	6,732	799	41	3,839	2,160	19,895	558
13-Apr-03	953	1,395	1,425	1,341	1,210	6,627	811	46	3,804	2,180	19,792	467
20-Apr-03	934	1,366	1,446	1,361	1,166	6,515	814	46	3,757	2,149	19,554	446
27-Apr-03	915	1,324	1,414	1,336	1,111	6,406	800	42	3,708	2,109	19,165	401
04-May-03	925	1,266	1,360	1,348	1,048	6,251	782	40	3,672	2,105	18,797	372
11-May-03	884	1,144	1,248	1,244	1,087	6,392	771	42	3,605	2,149	18,566	1,235
18-May-03	878	1,146	1,280	1,267	1,124	6,552	796	40	3,664	2,225	18,972	1,660
25-May-03	873	1,151	1,342	1,314	1,180	6,782	821	42	3,736	2,297	19,538	1,407
01-Jun-03	862	1,207	1,361	1,312	1,174	7,020	842	44	3,781	2,339	19,942	1,494
08-Jun-03	877	1,196	1,355	1,345	1,389	7,735	920	41	4,068	2,732	21,658	1,363
15-Jun-03	876	1,191	1,415	1,416	1,446	8,100	945	48	4,335	2,778	22,550	1,371
22-Jun-03	880	1,185	1,426	1,446	1,448	8,224	963	51	4,484	2,768	22,875	1,236
29-Jun-03	880	1,178	1,422	1,459	1,454	8,218	967	53	4,527	2,669	22,827	1,451
06-Jul-03	847	1,169	1,466	1,525	1,492	8,540	990	54	4,679	2,717	23,479	1,331
13-Jul-03	850	1,165	1,482	1,543	1,540	8,615	999	49	4,652	2,789	23,684	1,157
20-Jul-03	855	1,173	1,471	1,550	1,546	8,592	994	43	4,527	2,865	23,616	1,038
27-Jul-03	857	1,172	1,441	1,547	1,535	8,506	984	41	4,429	3,011	23,523	1,006
03-Aug-03	860	1,164	1,409	1,512	1,518	8,355	963	42	4,377	2,964	23,164	1,131
10-Aug-03	871	1,175	1,414	1,502	1,528	8,404	975	42	4,400	2,994	23,305	1,264
17-Aug-03	878	1,211	1,409	1,472	1,532	8,365	980	46	4,389	3,003	23,285	1,025
24-Aug-03	883	1,241	1,399	1,438	1,527	8,320	974	46	4,373	2,968	23,169	1,270
31-Aug-03	889	1,268	1,397	1,417	1,524	8,382	988	48	4,401	3,007	23,321	1,392
07-Sep-03	852	1,209	1,392	1,359	1,330	7,691	908	56	4,120	2,637	21,554	1,284
14-Sep-03	867	1,197	1,309	1,264	1,323	7,502	887	54	4,009	2,571	20,983	922
21-Sep-03	877	1,188	1,209	1,145	1,308	7,167	843	52	3,848	2,412	20,049	1,376
28-Sep-03	889	1,180	1,159	1,089	1,304	6,997	816	50	3,766	2,321	19,571	1,389
05-Oct-03	943	1,262	1,216	1,184	1,286	6,617	797	45	3,711	2,165	19,226	354
12-Oct-03	928	1,293	1,327	1,253	1,303	6,702	798	45	3,748	2,151	19,548	357
19-Oct-03	930	1,319	1,392	1,337	1,296	6,770	804	47	3,820	2,172	19,887	390
26-Oct-03	929	1,345	1,452	1,415	1,290	6,818	810	46	3,880	2,195	20,180	437
02-Nov-03	949	1,365	1,402	1,362	1,314	7,178	818	51	3,984	2,285	20,708	376
09-Nov-03	985	1,387	1,553	1,516	1,387	7,318	869	64	4,145	2,375	21,599	561
16-Nov-03	1,007	1,402	1,605	1,578	1,434	7,469	880	62	4,216	2,417	22,070	430
23-Nov-03	1,017	1,438	1,669	1,653	1,475	7,588	890	62	4,284	2,441	22,517	591
30-Nov-03	1,010	1,493	1,746	1,664	1,488	7,583	894	63	4,342	2,437	22,720	598
07-Dec-03	1,050	1,483	1,784	1,795	1,553	7,790	906	66	4,508	2,494	23,429	870
14-Dec-03	1,048	1,496	1,811	1,830	1,570	7,800	906	66	4,541	2,494	23,562	729
21-Dec-03	1,050	1,515	1,842	1,867	1,582	7,872	913	67	4,581	2,526	23,815	927
28-Dec-03	1,050	1,525	1,860	1,891	1,591	7,894	915	63	4,559	2,533	23,881	739

Table B1 – continued

Hourly Coincident Peak Demand (MW)												
Week	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	Total System	Load Forecast Uncertainty
04-Jan-04	982	1,509	1,764	1,791	1,474	7,179	836	58	4,170	2,295	22,058	751
11-Jan-04	1,070	1,537	1,888	1,921	1,614	7,970	916	61	4,581	2,554	24,112	883
18-Jan-04	1,061	1,530	1,866	1,893	1,593	7,878	912	61	4,546	2,537	23,877	979
25-Jan-04	1,052	1,515	1,857	1,878	1,579	7,811	905	62	4,518	2,500	23,677	871
01-Feb-04	1,051	1,514	1,869	1,879	1,584	7,864	909	62	4,547	2,507	23,786	608
08-Feb-04	1,037	1,497	1,842	1,838	1,554	7,811	904	63	4,510	2,482	23,538	729
15-Feb-04	1,035	1,483	1,818	1,799	1,530	7,757	900	63	4,477	2,456	23,318	801
22-Feb-04	1,029	1,461	1,771	1,738	1,490	7,612	890	65	4,394	2,409	22,859	851
29-Feb-04	1,035	1,449	1,719	1,763	1,450	7,554	880	65	4,345	2,416	22,676	827
07-Mar-04	1,021	1,424	1,694	1,746	1,431	7,460	874	66	4,290	2,394	22,400	793
14-Mar-04	1,002	1,402	1,665	1,726	1,395	7,325	868	61	4,237	2,367	22,048	751
21-Mar-04	983	1,376	1,632	1,700	1,351	7,186	861	60	4,180	2,336	21,665	733
28-Mar-04	960	1,349	1,594	1,669	1,309	6,990	853	56	4,094	2,300	21,174	688
04-Apr-04	934	1,326	1,563	1,647	1,264	6,854	848	52	4,045	2,277	20,810	700
11-Apr-04	958	1,380	1,435	1,356	1,223	6,723	822	49	3,859	2,221	20,026	469
18-Apr-04	939	1,357	1,465	1,383	1,178	6,611	825	47	3,816	2,190	19,811	448
25-Apr-04	921	1,315	1,431	1,357	1,120	6,494	814	43	3,766	2,149	19,410	403
02-May-04	910	1,270	1,404	1,336	1,081	6,373	803	39	3,710	2,118	19,044	373
09-May-04	890	1,137	1,271	1,266	1,095	6,478	783	41	3,659	2,190	18,810	1,237
16-May-04	883	1,138	1,300	1,292	1,131	6,632	807	41	3,719	2,265	19,208	1,663
23-May-04	878	1,140	1,363	1,340	1,188	6,865	832	40	3,791	2,338	19,775	1,410
30-May-04	873	1,145	1,401	1,361	1,199	7,084	848	44	3,851	2,380	20,186	1,497
06-Jun-04	879	1,193	1,372	1,364	1,407	7,851	935	40	4,132	2,817	21,990	1,364
13-Jun-04	880	1,189	1,436	1,440	1,468	8,240	962	46	4,377	2,845	22,883	1,372
20-Jun-04	883	1,186	1,451	1,466	1,480	8,353	979	49	4,522	2,831	23,200	1,237
27-Jun-04	882	1,177	1,439	1,480	1,473	8,341	982	53	4,595	2,729	23,151	1,452
04-Jul-04	883	1,176	1,470	1,535	1,507	8,627	1,008	54	4,718	2,733	23,711	1,333
11-Jul-04	853	1,166	1,499	1,568	1,550	8,759	1,016	48	4,729	2,826	24,014	1,158
18-Jul-04	857	1,167	1,491	1,570	1,564	8,719	1,010	42	4,593	2,925	23,938	1,039
25-Jul-04	859	1,168	1,463	1,568	1,556	8,642	1,001	38	4,501	3,047	23,843	1,007
01-Aug-04	861	1,159	1,425	1,534	1,535	8,470	977	44	4,440	3,021	23,466	1,131
08-Aug-04	872	1,165	1,431	1,526	1,546	8,524	990	42	4,466	3,053	23,615	1,266
15-Aug-04	880	1,201	1,424	1,495	1,549	8,484	994	45	4,453	3,061	23,586	1,026
22-Aug-04	884	1,234	1,415	1,460	1,544	8,437	987	48	4,436	3,025	23,470	1,271
29-Aug-04	890	1,259	1,414	1,440	1,542	8,503	1,002	48	4,467	3,066	23,631	1,393
05-Sep-04	897	1,274	1,305	1,289	1,445	7,905	937	49	4,227	2,881	22,209	1,567
12-Sep-04	869	1,187	1,336	1,294	1,324	7,578	898	56	4,064	2,609	21,215	923
19-Sep-04	879	1,179	1,235	1,174	1,310	7,242	853	54	3,900	2,450	20,276	1,379
26-Sep-04	892	1,171	1,179	1,111	1,309	7,075	827	51	3,817	2,358	19,790	1,392
03-Oct-04	942	1,242	1,239	1,210	1,292	6,714	810	47	3,781	2,208	19,485	356

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

Week	Hourly Non-Coincident Peak Demand (MW)											
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	System	Zonal Total
06-Apr-03	952	1,424	1,454	1,502	1,254	6,732	816	52	3,844	2,173	19,895	20,203
13-Apr-03	971	1,411	1,425	1,341	1,210	6,684	820	52	3,804	2,180	19,792	19,898
20-Apr-03	954	1,385	1,446	1,361	1,166	6,588	825	49	3,757	2,155	19,554	19,686
27-Apr-03	937	1,347	1,414	1,347	1,116	6,505	813	46	3,709	2,126	19,165	19,360
04-May-03	934	1,294	1,387	1,348	1,084	6,412	805	44	3,672	2,105	18,797	19,085
11-May-03	930	1,304	1,321	1,307	1,087	6,424	779	46	3,605	2,150	18,566	18,953
18-May-03	919	1,299	1,306	1,287	1,124	6,579	802	45	3,664	2,225	18,972	19,250
25-May-03	906	1,286	1,342	1,314	1,180	6,807	827	63	3,736	2,297	19,538	19,758
01-Jun-03	905	1,283	1,377	1,338	1,192	7,020	842	49	3,792	2,341	19,942	20,139
08-Jun-03	901	1,264	1,355	1,345	1,389	7,747	924	43	4,068	2,732	21,658	21,768
15-Jun-03	894	1,253	1,415	1,416	1,446	8,114	950	48	4,335	2,778	22,550	22,649
22-Jun-03	895	1,236	1,426	1,446	1,448	8,250	968	52	4,484	2,768	22,875	22,973
29-Jun-03	898	1,227	1,422	1,459	1,454	8,249	973	52	4,527	2,669	22,827	22,930
06-Jul-03	897	1,224	1,467	1,525	1,492	8,568	995	53	4,679	2,717	23,479	23,617
13-Jul-03	875	1,229	1,483	1,543	1,540	8,626	1,004	50	4,652	2,789	23,684	23,791
20-Jul-03	883	1,247	1,471	1,550	1,546	8,597	998	45	4,527	2,865	23,616	23,729
27-Jul-03	879	1,258	1,441	1,547	1,535	8,506	987	43	4,429	3,011	23,523	23,636
03-Aug-03	892	1,245	1,409	1,512	1,518	8,359	967	43	4,377	2,964	23,164	23,286
10-Aug-03	897	1,255	1,414	1,502	1,528	8,415	979	46	4,400	2,994	23,305	23,430
17-Aug-03	899	1,289	1,409	1,472	1,532	8,382	985	45	4,389	3,003	23,285	23,405
24-Aug-03	903	1,317	1,399	1,438	1,527	8,343	979	47	4,373	2,968	23,169	23,294
31-Aug-03	912	1,339	1,397	1,417	1,524	8,412	994	49	4,401	3,007	23,321	23,452
07-Sep-03	897	1,341	1,392	1,359	1,330	7,728	917	55	4,120	2,637	21,554	21,776
14-Sep-03	912	1,344	1,309	1,264	1,323	7,530	895	55	4,009	2,571	20,983	21,212
21-Sep-03	927	1,358	1,219	1,145	1,308	7,188	850	53	3,848	2,412	20,049	20,308
28-Sep-03	935	1,359	1,214	1,115	1,304	7,009	823	52	3,766	2,321	19,571	19,898
05-Oct-03	952	1,328	1,263	1,184	1,309	6,623	797	48	3,711	2,165	19,226	19,380
12-Oct-03	950	1,347	1,327	1,253	1,303	6,702	801	47	3,748	2,170	19,548	19,648
19-Oct-03	947	1,374	1,392	1,337	1,296	6,770	805	48	3,820	2,180	19,887	19,969
26-Oct-03	944	1,401	1,452	1,415	1,290	6,818	810	48	3,880	2,195	20,180	20,253
02-Nov-03	961	1,420	1,464	1,362	1,331	7,178	818	58	3,984	2,285	20,708	20,861
09-Nov-03	991	1,459	1,592	1,516	1,395	7,318	869	62	4,145	2,375	21,599	21,722
16-Nov-03	1,010	1,486	1,648	1,578	1,440	7,469	880	62	4,216	2,417	22,070	22,206
23-Nov-03	1,021	1,498	1,710	1,653	1,479	7,588	890	62	4,284	2,441	22,517	22,626
30-Nov-03	1,023	1,523	1,746	1,696	1,488	7,599	894	64	4,360	2,453	22,720	22,846
07-Dec-03	1,057	1,548	1,821	1,799	1,553	7,790	906	66	4,508	2,494	23,429	23,542
14-Dec-03	1,054	1,568	1,852	1,830	1,571	7,800	906	66	4,541	2,494	23,562	23,682
21-Dec-03	1,057	1,586	1,883	1,867	1,585	7,872	913	65	4,581	2,526	23,815	23,935
28-Dec-03	1,058	1,593	1,903	1,891	1,596	7,894	915	63	4,559	2,533	23,881	24,005

Table B2 - continued

Week	Hourly Non-Coincident Peak Demand (MW)											Zonal Total
	Northwest	Northeast	East	Essa	Ottawa	Toronto	Niagara	Bruce	Southwest	West	System	
04-Jan-04	1,062	1,595	1,788	1,791	1,501	7,213	874	59	4,170	2,361	22,058	22,414
11-Jan-04	1,082	1,601	1,928	1,921	1,624	7,970	916	61	4,581	2,554	24,112	24,238
18-Jan-04	1,073	1,592	1,900	1,893	1,603	7,878	912	61	4,546	2,537	23,877	23,995
25-Jan-04	1,066	1,572	1,869	1,878	1,582	7,811	905	62	4,518	2,500	23,677	23,763
01-Feb-04	1,068	1,559	1,869	1,879	1,584	7,864	909	63	4,547	2,507	23,786	23,849
08-Feb-04	1,055	1,543	1,842	1,851	1,554	7,811	904	63	4,510	2,482	23,538	23,615
15-Feb-04	1,055	1,534	1,818	1,828	1,530	7,757	900	64	4,477	2,460	23,318	23,423
22-Feb-04	1,049	1,514	1,771	1,780	1,490	7,612	890	65	4,394	2,423	22,859	22,988
29-Feb-04	1,044	1,504	1,752	1,763	1,482	7,587	889	65	4,345	2,416	22,676	22,847
07-Mar-04	1,034	1,482	1,707	1,746	1,460	7,460	878	65	4,290	2,394	22,400	22,516
14-Mar-04	1,018	1,463	1,665	1,726	1,424	7,325	868	62	4,237	2,367	22,048	22,155
21-Mar-04	1,001	1,437	1,632	1,700	1,378	7,186	861	59	4,180	2,336	21,665	21,770
28-Mar-04	979	1,407	1,594	1,669	1,336	6,990	853	56	4,094	2,302	21,174	21,280
04-Apr-04	957	1,410	1,563	1,647	1,289	6,854	848	53	4,045	2,292	20,810	20,958
11-Apr-04	975	1,403	1,435	1,356	1,223	6,758	831	52	3,859	2,221	20,026	20,113
18-Apr-04	958	1,380	1,465	1,383	1,178	6,655	836	50	3,816	2,195	19,811	19,916
25-Apr-04	946	1,338	1,431	1,366	1,121	6,567	826	47	3,766	2,166	19,410	19,574
02-May-04	933	1,291	1,406	1,364	1,091	6,481	818	45	3,732	2,146	19,044	19,307
09-May-04	938	1,300	1,338	1,325	1,095	6,509	794	46	3,659	2,190	18,810	19,194
16-May-04	924	1,292	1,324	1,309	1,131	6,657	812	45	3,719	2,265	19,208	19,478
23-May-04	914	1,279	1,363	1,340	1,188	6,887	837	46	3,791	2,338	19,775	19,983
30-May-04	912	1,278	1,401	1,361	1,199	7,104	854	64	3,851	2,380	20,186	20,404
06-Jun-04	908	1,270	1,372	1,364	1,407	7,860	938	46	4,132	2,817	21,990	22,114
13-Jun-04	900	1,259	1,436	1,440	1,468	8,251	966	47	4,377	2,845	22,883	22,989
20-Jun-04	899	1,248	1,451	1,466	1,480	8,371	983	51	4,522	2,831	23,200	23,302
27-Jun-04	902	1,233	1,439	1,480	1,473	8,369	987	52	4,595	2,729	23,151	23,259
04-Jul-04	901	1,233	1,472	1,535	1,507	8,655	1,013	53	4,718	2,733	23,711	23,820
11-Jul-04	879	1,235	1,500	1,568	1,550	8,772	1,021	50	4,729	2,826	24,014	24,130
18-Jul-04	885	1,246	1,491	1,570	1,564	8,722	1,013	46	4,593	2,925	23,938	24,055
25-Jul-04	882	1,260	1,463	1,568	1,556	8,642	1,003	42	4,501	3,047	23,843	23,964
01-Aug-04	889	1,248	1,425	1,534	1,535	8,471	980	43	4,440	3,021	23,466	23,586
08-Aug-04	900	1,253	1,431	1,526	1,546	8,532	993	46	4,466	3,053	23,615	23,746
15-Aug-04	901	1,287	1,424	1,495	1,549	8,497	998	45	4,453	3,061	23,586	23,710
22-Aug-04	905	1,318	1,415	1,460	1,544	8,457	992	46	4,436	3,025	23,470	23,598
29-Aug-04	914	1,338	1,414	1,440	1,542	8,530	1,008	48	4,467	3,066	23,631	23,767
05-Sep-04	910	1,346	1,417	1,388	1,445	7,971	940	55	4,227	2,881	22,209	22,580
12-Sep-04	917	1,339	1,336	1,294	1,324	7,607	906	55	4,064	2,609	21,215	21,451
19-Sep-04	932	1,354	1,246	1,174	1,310	7,263	860	53	3,900	2,450	20,276	20,542
26-Sep-04	939	1,353	1,231	1,137	1,309	7,086	833	52	3,830	2,358	19,790	20,128
03-Oct-04	955	1,320	1,282	1,210	1,313	6,714	810	48	3,781	2,208	19,485	19,641

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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	Daily Avg Temperature	> 16° C	1°C Increase 6,370 MWh Increase
		10°C > and < 16° C	1°C Increase 390 MWh Increase
		< 10°C	1°C Decrease 2,580 MWh Increase
	Daily Avg Humidity - Dewpoint	> 16° C	1°C Increase 2,450 MWh Increase
		10°C > and < 16° C	1°C Increase 140 MWh Increase
		< 10°C	1°C Decrease 940 MWh Increase
	Wind	Summer	1 km/hr Decrease 280 MWh Increase
		Winter	1 km/hr Increase 230 MWh Increase
	Cloud	Summer	Decrease of 1 on Scale 1,210 MWh Increase
		Winter	Increase of 1 on Scale 1,830 MWh Increase
Economic	Employment	Increase of 1,000 jobs 25 MWh Increase	
	Housing Stock	Increase of 1,000 houses 35 MWh Increase	
Calendar	Holidays	New Year's Day	65,000 MWh Decrease
		Good Friday	45,000 MWh Decrease
		Victoria Day	49,000 MWh Decrease
		Canada Day	25,000 MWh Decrease
		August Civic Holiday	38,000 MWh Decrease
		Labour Day	54,000 MWh Decrease
		Thanksgiving Day	55,000 MWh Decrease
		Remembrance Day	6,000 MWh Decrease
		Christmas	85,000 MWh Decrease
		Boxing Day	51,000 MWh Decrease
		New Year's Eve	20,000 MWh Decrease
		Week Between Christmas and New Years Eve	38,000 MWh Decrease
	Day of Week	Monday vs Sunday	44,000 MWh Increase
		Tuesday vs Sunday	46,000 MWh Increase
		Wednesday vs Sunday	47,000 MWh Increase
	Thursday vs Sunday	47,000 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	Temperature		
	> 16° C	1°C Increase	380 MW Increase
	10°C > and < 16° C	1°C Increase	50 MW Increase
	< 10°C	1°C Decrease	110 MW Increase
	Humidity - Dewpoint		
	> 16° C	1°C Increase	140 MW Increase
	10°C > and < 16° C	1°C Increase	20 MW Increase
	< 10°C	1°C Decrease	40 MW Increase
	Wind		
	Summer	1 km/hr Decrease	10 MW Increase
Winter	1 km/hr Increase	20 MW Increase	
Cloud	Summer	Decrease of 1 on Scale	90 MW Increase
	Winter	Increase of 1 on Scale	80 MW Increase
Economic	Employment	Increase of 1,000 jobs	1 MW Increase
	Housing Stock	Increase of 1,000 houses	2 MW Increase
Calendar	Holidays	New Year's Day	2,900 MW Decrease
		Good Friday	2,000 MW Decrease
		Victoria Day	2,300 MW Decrease
		Canada Day	900 MW Decrease
		August Civic Holiday	1,600 MW Decrease
		Labour Day	2,300 MW Decrease
		Thanksgiving Day	2,500 MW Decrease
		Remembrance Day	300 MW Decrease
		Christmas	4,700 MW Decrease
		Boxing Day	2,400 MW Decrease
		New Year's Eve	1,100 MW Decrease
		Week Between Christmas and New Years Eve	1,500 MW Decrease
	Day of Week	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		1,700 MW Increase	
Saturday vs Sunday		200 MW Increase	

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