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**REPORT**

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**Smart Metering Entity (SME)  
Time-of-Use Mandate Progress Report  
Through February 28, 2013**

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**Issue 31.0 - March 21, 2013**

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# 1. Introduction

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## 1.1 Purpose

The purpose of this report is to provide a monthly update to the Ontario Energy Board on the Smart Metering Entity's readiness and performance and the progress in respect to distributor integration with the Meter Data Management and Repository (MDM/R). This report includes information and status updates on:

- The Smart Metering Entity (SME) and the MDM/R Readiness - Any issues relevant to the ability of the SME and the MDM/R to support MDM/R enrolment and TOU implementation, such as resourcing, software operation, and processing performance.
- Distributor (LDC<sup>1</sup>) Readiness – Integrating with the MDM/R is a prerequisite to enable LDCs to execute their individual TOU rollout strategies and contribute to Ontario's provincial targets for total customers on time-of-use (TOU) rates. This report includes information regarding LDC progress against their project plans, testing activities and MDM/R enrolment activities both achieved and projected.

## 1.2 How to Use this Document

This report presents information and status updates on SME and MDM/R readiness (in Section 2), distributor readiness, and MDM/R enrolment progress (in Section 3). This report focuses on updates through the end of the indicated month. However, in the area of MDM/R readiness (Section 2), important updates that occurred between the end of the reporting month and the date the report is submitted to the OEB will also be reported. More information about the provincial Smart Metering Initiative, the MDM/R and the implementation of Time-of-Use rates is available on the websites of the Ministry of Energy (<http://www.mei.gov.on.ca/>), the Ontario Energy Board (<http://www.oeb.gov.on.ca/OEB/Industry>) and the IESO/SME (<http://www.smi-ieso.ca/>).

SME and MDM/R readiness will include updates on implementation and testing for new MDM/R software, processing performance, status of resourcing and training programs, and any other issues that may affect the implementation of mandatory TOU.

Distributor readiness and MDM/R enrolment progress will be communicated using a series of tables; some summarizing aggregate results and others detailing by individual LDC. The tables provided in the report are:

- MDM/R Cutover Targets
- MDM/R Enrolled Meter Counts by Distributor
- MDM/R Enrolment Wave Calendar (2013)

Each table is accompanied by a description of its contents and how to interpret it. The information contained in two of the tables is interrelated and these relationships are described below.

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<sup>1</sup> LDCs in Ontario (meaning each Local Distribution Company or "distributor" as defined in the Ontario Energy Board Act, 1998)

- The MDM/R Enrolment Wave Calendar contains detailed schedules for the planned enrolment testing and cutover to production that each LDC has provided to the SME. The Wave Calendar includes updates received from LDCs verbally and through project plan submissions. If an LDC's self-certification for enrolment testing has been accepted by the SME, this is also indicated on the MDM/R Enrolment Wave Calendar. Verbally provided milestone information, while shown in the calendar, is not included in any of the other tables. The information in the MDM/R Enrolment Wave Calendar can be further refined based on the SME's assessment of an organisation's readiness. The basis for such refinements can include our interactions with the LDC's project team, along with observed levels of testing activity in the MDM/R testing environments.
- MDM/R Cutover Targets uses the actual number of LDCs enrolled in the MDM/R production environment and the number of meters that they have each enrolled at the end of each month. It projects forward the number of LDCs that will be enrolled in subsequent time periods based on the MDM/R Enrolment Wave Calendar.

## **2. SME and MDM/R Readiness – Relevant Issues**

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### **2.1 MDM/R Operation and Software Testing**

The Smart Metering Entity (SME) has completed the enrolment of 71 of 72 distributors and their eligible meters under the Board's TOU mandate. The enrolment and transition of remaining customers to TOU billing is subject to the Board's regulatory and exemption processes.

The MDM/R production environment remains stable and reliable, and the SME continues to respond to, and address, LDC support and service requests in a timely manner.

With the cooperation of LDCs, the MDM/R continues to offer a stable, centralized system that effectively supports LDCs with their time-of-use billing. The SME continues to work with LDCs as they transition to the new billing quantity interface that enables them to comply with Measurement Canada's requirements by including register readings on customer's time-of-use bills.

### **2.2 Processing Performance**

At the end of February, the MDM/R was supporting 71 LDCs with a total of 4.6 million enrolled smart meters. In February, the average number of smart meters reporting data to the MDM/R on a daily basis amounted to 3.9 million; however, the MDM/R was required to process an average of 13.2% more interval data daily, due to the poor quality of data submitted by some LDCs and their respective AMI agents, which resulted in temporary data estimations as well as duplicate data submissions.

In February, the considerable increase in the volume of meter read data submitted by LDCs just before the close of the midnight to 5 AM service level window continued and resulted in the MDM/R processing only 97.3% of meter reads within service level time lines. On average, the remaining 2.7% of meter read data submittals completed processing 60 minutes after the service level requirement. No business impacts from these delays were reported to the IESO by the affected LDCs. The MDM/R processed 100% of meter master data updates, and 100% of billing quantities within contracted service level time lines.

To ensure the reliable operation of the MDM/R, the SME has taken a proactive approach to contact LDCs and their metering providers directly to manage the quality and timing of meter read data submission to the MDM/R.

During the month of February, the number of days configured for the Consecutive Zeros Check functionality for one of the MDM/R VEE services (VEE17) was adjusted to assess its impact on the performance for processing meter read data with this VEE service. Significant processing performance improvements were observed with meter read data processing service levels being consistently met.

In light of those results, the IESO has requested from the LDCs who use this VEE 17 service to provide more specific requirements on the optimal configuration settings, as well as the details of the contents of the Consecutive Zeros Check reports, to ensure that a solution is devised that meets the LDCs' validated needs while avoiding significant impacts to the performance of the system. During this period of assessment and validation, the threshold value setting will remain low.

In early March, several LDCs experienced issues with their AMI systems following the clock-time change to Eastern Daylight Time (DST). Because the MDM/R system remains on Eastern Standard Time (EST) year-round, meter read data should always be time-stamped and transmitted in EST. The meter read data time-stamps for the affected LDCs were not aligned with MDM/R requirements. The initial submission and resubmission of correctly time-stamped meter read data created estimation, framing, and reprocessing volumes that were 10 times higher than normal. This significantly increased processing load and caused a delay in framing data for billing which affected a limited number of LDCs. The SME was able to mitigate impact by contacting and working with the affected LDCs, providing LDC assistance, and scheduling re-submission times. The affected LDC's are continuing to work with their AMI vendor to prevent future recurrence.

## **2.3 Resourcing**

The SME continues to make resources available to LDCs in support of their time-of-use implementation plans and transition to the interface and measurement profiles required for LDCs to receive and present register reads on electricity bills. There were no significant resource changes in February.

## **2.4 Training**

The SME continues to update training materials and the training environment to provide a more advanced training program for LDCs.

## **2.5 Additional Risks and Issues**

### **INCREASED REQUESTS OF THE WEB-SERVICES METER READS RETRIEVAL FACILITY**

Following up on what was previously reported in January, the SME continues to engage with LDCs and third party organizations to better understand the nature of the increased demand on the web-services retrieval facility and, where possible, either eliminate it or improve the efficiency of how information is retrieved from the MDM/R.

We continue to monitor and tune the Web Services facility to handle these higher volumes. As part of the planned refresh of the MDM/R computing infrastructure in 2013, the MDM/R web services retrieval facility will have additional capacity to support the increased volume of requests.

### **SME INITIATIVES**

#### **Transitioning of LDCs to Enable their Receipt of Cumulative Register Reads from the MDM/R for Inclusion on TOU Bills to Customers**

By the end of February, 69 LDCs have transitioned to the MDM/R interface enabling them to receive register reads for billing and support their compliance with Measurement Canada requirements. The SME continues to work with the remaining LDCs to obtain and confirm transition schedules.

LDCs are responsible for the inclusion of cumulative register reads on customer's TOU bills by making necessary changes to their own systems, business processes, and by conducting their own tests before transitioning.

### **Measurement Canada 2012 Phase 2**

To support Measurement Canada requirements, the MC 2012 Phase 2 solution allows LDCs to use the MDM/R for billing based on hourly and periodic consumption. This solution also provides additional quality indicators for estimated and calculated register reads and the ability to designate externally submitted register reads as estimated.

The following components comprise Phase 2 of the Measurement Canada 2012 solution:

- Calculative reads equality adjustment (periodic and hourly) and related measurement profiles;
- Additional quality indicators for externally estimated and calculated register reads using estimated intervals; and
- Extension of the Trilliant meter readings interface for estimated register reads.

Our expectation is that this software will be made available for LDC testing and be deployed to Production in the fourth quarter of 2013, after the refresh of the MDM/R computing infrastructure is completed.

### **Green Button Initiative**

Since the launch of the 'Green Button initiative' on November 21, 2012, the IESO has been providing input and advice to the Ministry of Energy, MaRS Discovery District (MaRS), LDCs and industry stakeholders, on the Electricity Data Access Project (EDAP). A working group and four sub-committees have been formed to move this initiative forward, with representation from LDCs, the Privacy Commissioner of Ontario, the IESO, the OPA, the OEB and the Ministry.

The Green Button initiative is focused on providing consumers with the ability to download their electricity consumption information in a standard format ("Download My Data") and enabling authorized third party service and application providers to access electricity consumption information on behalf of consumers from LDCs and the MDM/R ("Connect My Data").

A draft standards document for "Download My Data" is currently in review by the subcommittee. The Ministry of Energy has issued a request for a proposal to select a technical advisor to assist in the development and testing of a proof-of-concept version of the "Connect My Data" solution. The Ministry is expected to announce the successful bidder by the end of March.

The IESO is participating in the working group as well as the four subcommittees in support of the Green Button initiative while maintaining the reliability and security of the MDM/R in support of LDCs' business operations.

## 3. Distributor Readiness – MDM/R Integration and Meter Enrolment

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### 3.1 February Highlights

By the end of February there were 71 LDCs in production with 4.6 million meters enrolled in the MDM/R. The last LDC will begin connectivity testing with the MDM/R in April. This LDC has submitted a project plan and is planning to begin integration testing with the MDM/R in the third and fourth quarters of 2013 with a targeted cutover to production in the fourth quarter of 2013.

### 3.2 MDM/R Cutover Targets<sup>2</sup>

The MDM/R Cutover Targets table provides both actual and projected numbers of LDCs that have been or are to be cutover to MDM/R production operations in each calendar quarter.

For information on which specific LDCs are included in the *Production LDCs* column for each time period refer to the MDM/R Enrolment Wave Calendar.

The *RPP Eligible Customers* column contains the aggregate total for all the LDCs included in the *Production LDCs* column. LDC filings with the OEB include their total RPP eligible customers and these figures form the basis for the aggregated figures reported in this table.

The *Enrolled in MDMR* column contains the aggregate total number of smart meters for those LDCs that are included in the *Production LDCs* column. It is included in this table to track the ramp-up of enrolled meters after the LDCs complete their cutover to MDM/R production operations. The source of these figures is the LDC filings with the OEB.

The % complete figure at the bottom of the table indicates the percentage of the total RPP eligible customers enrolled in the MDM/R as of the reporting date.

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<sup>2</sup> As of January 2012, distributors who have implemented TOU for over 98% of their RPP eligible customers are no longer required to report monthly the number of meters enrolled in the MDM/R to the OEB. For a distributor that has met its TOU targets and is no longer reporting to the OEB, their number of meters enrolled will be based on data taken directly from the MDM/R. Additionally, for these LDCs:

- If the number of meters enrolled in the MDM/R exceeds their last OEB reported number of RPP eligible customers we will equate their number of RPP eligible customers to the MDM/R meters enrolled count.

If the number of meters enrolled in the MDM/R is less than their last OEB reported number of RPP eligible customers, we will retain the RPP eligible customers last reported to the OEB.



February 28, 2013	MDM/R Cutover Targets		
	Production LDCs	RPP Eligible Customers	Enrolled in MDMR
<b>Actuals - Based on Production LDCs data</b>			
Pre- Q2 2010	9	3,010,368	2,818,743
Q3 2010	2	160,972	160,972
Q4 2010	4	123,111	123,111
Q1 2011	13	286,252	287,155
Q2 2011	14	292,462	292,462
Q3 2011	16	583,099	578,437
Q4 2011	5	39,190	38,156
Q1 2012	6	207,741	207,741
Q2 2012	2	55,147	55,147
Q3 2012	-	-	-
Q4 2012	-	-	-
Q1 2013			
Q2 2013			
Q3 2013			
<b>Actual Totals for LDCs in Production</b>	<b>71</b>	<b>4,758,342</b>	<b>4,561,924</b>
<b>Projected - Based on enrolment plans submitted to the SME</b>			
Q4 2013	1	84,508	
<b>Projected Totals for Committed LDCs</b>	<b>72</b>	<b>84,508</b>	
<b>Totals (Actual and Projected)</b>	<b>72</b>	<b>4,842,850</b>	<b>4,561,924</b>
<b>% Complete of total RPP Eligible Customers Enrolled in the MDM/R</b>		<b>95.9%</b>	
<b>Notes:</b>			
(1) "RPP Eligible customers" are the total customers reported to the OEB that will ultimately be put on TOU rates and whose smart meters will be enrolled in the MDM/R.			
(2) "Enrolled in MDMR" represents the number of "RPP Eligible Customers" whose smart meters are currently enrolled in the MDM/R.			

### 3.3 MDM/R Enrolled Meter Counts by Distributor<sup>2</sup>

The MDM/R Enrolled Meter Counts by Distributor table shows each MDM/R production LDC's progress in enrolling smart meters over the previous month. The total meters enrolled in the previous and the current reporting months are provided, along with the net increase or decrease over the period. Note that in some cases there may be a small decrease in the number of meters enrolled from month to month. This reflects the routine day-to-day activities within an LDC's operation that involve the removals and deactivations of meters.

The source of the data in the *Total Meters Enrolled* and the *Total RPP Eligible Customers* columns come from data filed by the LDCs with the OEB. The *% Complete* column indicates what percentages of the Total RPP Eligible Customers are enrolled in MDM/R production as of the end of the reporting period.

As of February 28, 2013	MDM/R Enrolled Meter Counts by Distributor				
Distributor	Total Meters Enrolled through 31-Jan	Total Meters Enrolled through 28-Feb	Increased Meter Enrolment this Month	Total RPP Eligible Customers	% Complete for Production LDCs
Atikokan Hydro*	1,671	1,671	0	1,671	100.0%
Bluewater*	35,571	35,581	10	35,581	100.0%
Brant County Power*	9,851	9,858	7	9,858	100.0%
Brantford Power*	37,972	37,994	22	37,994	100.0%
Burlington Hydro*	64,917	64,932	15	64,932	100.0%
Cambridge*	52,076	52,104	28	52,104	100.0%
Centre Wellington*	6,555	6,556	1	6,556	100.0%
Chapleau*	1,276	1,276	0	1,276	100.0%
CNPI*	39,854	40,106	252	40,106	100.0%
COLLUS Power*	16,069	16,082	13	16,082	100.0%
E.L.K. Energy	10,965	10,973	8	10,935	100.3%
Embrun*	1,948	1,948	0	1,948	100.0%
Enersource	188,849	189,114	265	193,784	97.6%
Entegrus*	40,247	40,263	16	40,263	100.0%
Erie Thames*	18,107	18,107	0	18,107	100.0%
Espanola*	3,306	3,310	4	3,310	100.0%
Essex Power*	28,213	28,237	24	28,237	100.0%
Festival Hydro*	19,804	19,819	15	19,819	100.0%
Fort Frances*	3,739	3,739	0	3,739	100.0%
Greater Sudbury*	47,009	47,045	36	47,045	100.0%
Grimsby Power*	10,402	10,408	6	10,408	100.0%
Guelph Hydro*	50,551	50,630	79	50,630	100.0%
Haldimand County*	21,129	21,132	3	21,132	100.0%
Halton Hills*	20,947	20,982	35	20,982	100.0%
Hearst Power*	2,709	2,709	0	2,709	100.0%
Horizon Utilities*	233,873	234,210	337	234,210	100.0%
Hydro 2000*	1,207	1,207	0	1,207	100.0%
Hydro Hawkesbury*	6,537	6,537	0	6,537	100.0%
Hydro One <sup>1</sup>	1,119,438	1,119,560	122	1,208,801	92.6%
Hydro One Brampton*	139,677	139,990	313	139,990	100.0%
Hydro Ottawa*	306,229	307,095	866	307,095	100.0%

Innisfil Hydro*	15,058	15,073	15	15,073	100.0%
Kenora Hydro*	5,566	5,573	7	5,573	100.0%
Kingston Hydro*	27,181	27,186	5	27,186	100.0%
Kitchener-Wilmot*	88,374	88,440	66	88,440	100.0%
Lakefront Utilities*	9,824	9,840	16	9,840	100.0%
Lakeland Power*	9,708	9,712	4	9,712	100.0%
London Hydro*	148,131	148,238	107	148,238	100.0%
Midland Power*	6,890	6,894	4	6,894	100.0%
Milton Hydro*	30,938	31,146	208	31,146	100.0%
NewmarketTay*	33,537	33,585	48	33,585	100.0%
Niagara Peninsula	50,116	50,220	104	50,250	99.9%
Niagara-on-the-Lake*	8,109	8,120	11	8,120	100.0%
Norfolk Power*	19,157	19,182	25	19,182	100.0%
North Bay Hydro	22,632	22,647	15	23,681	95.6%
Northern Ontario Wires*	5,991	5,991	0	5,991	100.0%
Oakville Hydro	63,853	64,283	430	63,380	101.4%
Orangeville Hydro*	11,332	11,347	15	11,347	100.0%
Orillia Power*	13,062	13,062	0	13,062	100.0%
Oshawa PUC*	53,017	53,074	57	53,074	100.0%
Ottawa River*	10,525	10,528	3	10,528	100.0%
Parry Sound*	3,384	3,386	2	3,386	100.0%
Peterborough*	35,303	35,328	25	35,328	100.0%
PowerStream*	325,217	325,542	325	325,542	100.0%
PUC Distribution*	32,992	32,992	0	32,992	100.0%
Renfrew Hydro*	4,182	4,182	0	4,182	100.0%
Rideau St. Lawrence*	5,797	5,798	1	5,798	100.0%
Sioux Lookout*	2,735	2,735	0	2,735	100.0%
St. Thomas*	16,489	16,505	16	16,505	100.0%
Thunder Bay*	49,827	49,834	7	49,834	100.0%
Tillsonburg*	6,683	6,683	0	6,683	100.0%
Toronto Hydro	612,241	612,241	0	714,625	85.7%
Veridian*	115,038	115,101	63	115,101	100.0%
Wasaga*	12,513	12,522	9	12,522	100.0%
Waterloo North*	53,574	53,642	68	53,642	100.0%
Welland Hydro*	22,188	22,199	11	22,199	100.0%
Wellington North*	3,629	3,638	9	3,638	100.0%
West Coast Huron*	3,806	3,809	3	3,809	100.0%
Westario Power*	22,489	22,497	8	22,497	100.0%
Whitby Hydro*	40,662	40,691	29	40,691	100.0%
Woodstock Hydro*	15,275	15,283	8	15,283	100.0%
<b>Total Meter Counts</b>	<b>4,557,723</b>	<b>4,561,924</b>	<b>4,201</b>	<b>4,758,342</b>	<b>95.9%</b>
*This LDC has implemented TOU for more than 98% of their customers and has been given an exemption by the OEB from having to report monthly enrolment numbers.					
<sup>1</sup> Hydro One has been granted an exemption by the OEB from having to report monthly enrolment numbers as a result of TOU implementation for some of their hard-to-reach customers.					

### **3.4 Distributor Enrolment Testing Activities with the MDM/R**

The System Integration Testing, Qualification Testing and Cutover timelines identified are sourced from the details in the Enrolment Wave Calendar. Unit testing timelines are provided by each LDC in their MDM/R project plan.

No enrolment testing activity is expected until the third quarter of 2013.

### **3.5 MDM/R Enrolment Wave Calendar**

The MDM/R Enrolment Wave Calendar is an integrated plan illustrating the three formal enrolment testing milestones of SIT, QT, and Cutover for all non-production LDCs. The background colour for each LDC's name indicates the source of the information used in the calendar:

- Green indicates that the LDC has submitted a project plan, completed Unit testing and the SME has accepted the LDC's Self-Certification for Enrolment Testing.
- Blue indicates that the SME has reviewed and accepted the LDC's project plan.
- Yellow either indicates that the SME has not received a project plan but has received verbal confirmation of the LDC's three enrolment testing milestones or that the LDC has verbally indicated that it will re-submit a new plan. This information is not used for projecting LDC cutover dates in any of the other charts in this report.
- Red indicates that the LDC has not shared their plan with the SME.
- White indicates a production LDC that has completed Cutover.
- Orange indicates that the LDC is scheduled for amalgamation.

The RPP eligible customer counts come from data filed by the LDCs with the OEB. As LDC plans change, the reason code will indicate one of five possible reasons.

1. The change may have been initiated by the SME due to resource or system constraints.
2. The LDC may have re-submitted a new plan.
3. The LDC may have missed timelines for their project tasks and therefore was not ready to proceed in accordance with their plan.
4. The LDC may have entered enrolment testing but subsequently had to withdraw because they were unable to successfully complete the tests.
5. The LDC's previous plan has changed but they have not re-submitted a new plan.

When an LDC's schedule is changed, the milestones for the previous schedule remain on the calendar but are greyed out.

Finally, each section on the timeline represents a one-week period starting on a Monday.

**MDM/R Enrolment Wave Calendar**  
As of February 28, 2013

**S** SIT - normally 2 weeks      **Q** QT - normally 4 weeks      **C** Cutover - normally 2 weeks

Reason for Latest Change	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Reason Code:																							
1: IESO Change																							
2: LDC Plan change																							
3: LDC Not Ready																							
4: LDC Wave Failure																							
5: Update pending																							
	February	March	April	May	June	July	August	September	September	September	September	September	October	October	October	October	November	November	November	November	December	December	December

RPP Eligible Customers	LDC Name																						
84,508	ENWIN Powerlines Ltd.							S	S	S	Q	Q	Q	Q	Q		C	C	C				

- Red = No project plan submitted**
- Yellow = Verbal indication of major milestones**
- Blue = Project plan submitted**
- Green = Enrolment self-certification accepted**
- White = Production LDC**
- Orange = Scheduled for amalgamation**

MDMR Production LDCs	
1,671	Atkokan Hydro Inc.
35,581	Bluewater Power Distribution Corp.
9,858	Brant County Power Inc
37,994	Brantford Power Inc.
64,932	Burlington Hydro Inc.
52,104	Cambridge & North Dumfries Hydro Inc.
6,556	Centre Wellington Hydro Ltd.
1,276	Chapleau Public Utilities Corp.
27,509	CNP - Fort Erie
9,075	CNP - Port Colborne Hydro Inc
3,522	CNP - EOP
16,082	Collus Power Corp
1,948	Cooperative Hydro Embrun Inc.
10,935	E.L.K. Energy Inc.
193,784	Enersource Hydro Mississauga Inc.
40,263	Entegrus
18,107	Erie Thames Powerlines Corp.
3,310	Espanola Regional Hydro Distribution Corp.
28,237	Essex Power Lines Corp.
19,819	Festival Hydro Inc.
3,739	Fort Frances Power Corp.
47,045	Greater Sudbury Hydro Inc.
10,408	Grimsby Power Inc.
50,630	Guelph Hydro Electric Systems Inc.
21,132	Haldimand County Hydro
20,982	Halton Hills
2,709	Hearst Power Distribution Company Ltd
234,210	Horizon Utilities Corporation
1,207	Hydro 2000 Inc.
6,537	Hydro Hawkesbury Inc.
1,208,801	Hydro One
139,990	Hydro One Brampton Networks Inc.
307,095	Hydro Ottawa Limited
15,073	Innisfil Hydro Distribution Systems Ltd.
5,573	Kenora Hydro Electric Corp Ltd
27,186	Kingston Hydro Corporation
88,440	Kitchener-Wilmot Hydro Inc.
9,840	Lakefront Utilities Inc.
9,712	Lakeland Power Distribution Ltd.
148,238	London Hydro
6,894	Midland Power Utility Corp
31,146	Milton Hydro
33,585	Newmarket Hydro Ltd./Tay Hydro
50,250	Niagara Peninsula Energy Inc.
8,120	Niagara-on-the-Lake Hydro Inc.
19,182	Norfolk Power Distribution Inc.
23,681	North Bay Hydro Distribution Ltd
5,991	Northern Ontario Wires Inc.
63,380	Oakville Hydro Electricity Distribution Inc.
11,347	Orangeville Hydro Ltd.
13,062	Orillia Power Distribution Corp.
53,074	Oshawa PUC Networks Inc.
10,528	Ottawa River Power Corp.
3,386	Parry Sound Power Corp.
35,328	Peterborough Distribution Inc.
325,542	PowerStream Inc
32,992	PUC Distribution Inc.
4,182	Renfrew Hydro Inc.
5,798	Rideau St. Lawrence Distribution Inc.
2,735	Sioux Lookout Hydro
16,505	St. Thomas Energy Inc.
49,834	Thunder Bay Electricity Distribution Inc.
6,683	Tillsonburg Hydro Inc.
714,625	Toronto Hydro Electric Services Ltd.
115,101	Veridian Connections
12,522	Wasaga Distribution Inc.
53,642	Waterloo North Hydro Inc.
22,199	Welland Hydro-Electric System Corp.
3,638	Wellington North Power Inc.
3,809	West Coast Huron Energy Inc.
22,497	Westario Power Inc.
40,691	Whitby Hydro Energy Services Corp.
15,283	Woodstock Hydro Services Inc.
<b>4,758,342</b>	<b>Production total customer count</b>
<b>4,842,850</b>	<b>All LDC total customer count</b>