EXTERNAL

REPORT

Power to Ontario.
On Demand.

Smart Metering Entity (SME)
Time-of-Use Mandate Progress Report
Through November 30, 2012

Issue 28.0 - December 28, 2012

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1. Introduction

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[1]) 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) and 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 Outlook
- MDM/R Enrolled Meter Counts by Distributor
- Distributor Testing Activities with the MDM/R (Three Month Outlook)
- MDM/R Enrolment Wave Calendar (2012)

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

[1] *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.
- The Distributor Testing Activities with the MDM/R (Three Month Outlook) projects those LDCs that will be in System Integration Testing, Qualification Testing and Cutover activities over the next three months from the MDM/R Enrolment Wave Calendar.

2. SME and MDM/R Readiness – Relevant Issues

2.1 MDM/R Operation and Software Testing

The Smart Metering Entity (SME) continues to effectively support distributor enrolment and the implementation of TOU billing under the Board's TOU mandate.

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.

LDCs continue to transition to the new billing quantity interface that enables them to comply with Measurement Canada's requirements to include register readings on customers' time-of-use bills. Working in partnership with LDCs, the MDM/R offers a stable, centralized system that effectively supports LDCs with their time-of-use billing.

2.2 Processing Performance

At the end of November, the MDM/R was supporting 72 LDCs with a total of 4.5 million enrolled smart meters. The average number of smart meters reporting data to the MDM/R on a daily basis amounted to 3.9 million for the month of November. The MDM/R was required to process 15% more interval data, however, because of poor data quality submitted by some LDCs and their respective AMI Agents, which resulted in temporary data estimations as well as duplicate data submissions.

In November, the MDM/R processed all meter reads, meter master data updates, and billing quantities within service level time lines except for

- 21 instances where short delays to the processing of some meter read data due to late and poor quality data submissions of some LDCs; and
- One instance where there was a short billing processing delay associated with a required post Oracle 11G upgrade activity.

To help ensure reliable operation of the MDM/R, the SME is continuing to work with LDCs and our vendors to reduce the impact on the MDM/R resulting from poor quality and delayed meter read data submissions from a limited number of LDCs and their metering providers. Examples of these situations include:

- Future dated meter reads and billing requests
- Meter reads with large time gaps between the beginning and ending interval data
- Duplicate submittals of the same meter read data files
- Missing or delayed meter reads for a significant percentage of an LDC's population
- Submitting identical billing requests multiple times, and
- Submitting all billing requests as "off cycle".

As a result, these types of submissions have caused modest delays in the timely delivery of information back to LDCs.

On November 21, 2012 a Technical Bulletin entitled "Meter Read Data Submission Timing" was released and made available to LDCs. Since November 4, 2012, which was the day the province switched back to Standard Time, the SME observed a significant number of LDCs submitting meter reads one hour later in Eastern Standard Time. This bulletin emphasized the importance of submitting meter read data before 05:00am EST. LDCs were requested review their submission times and ensure meter read data files are submitted as soon as available and well distributed over the hours between 00:00 EST and 05:00 EST.

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 November.

2.4 Training

The SME is in the process of updating training materials and the training environment to support a more advance training program for LDCs.

2.5 Additional Risks and Issues

Web-Services Meter Reads Retrieval Facility

Over the past few months, the MDM/R has experienced an increase of volumes approximately two to three times greater than expected. This facility was originally designed and implemented to support the retrieval of meter reads by ratepayers and agents. On occasions when volumes have exceeded system thresholds, to maintain the reliable operation of MDM/R's Critical Services, the SME has had to temporarily suspend processing of web-service requests until volumes have returned within specified tolerances. The SME has been in constant communication with LDCs and their respective agents during these temporary outages. The impact of these temporary outages is monitored closely and have, to date, had minimal impact on consumers and online access to their data.

The SME understands that LDCs are using this facility to support their business operations and is working to support the evolving and increasing needs for the retrieval of meter reads from the MDM/R. LDCs have advised the SME that third-party organizations are scraping customer data via MDM/R Web Services for their web-sites or data stores, which may also be contributing to higher than expected volumes of web service requests.[2]

The SME has also observed a limited number of LDCs and their vendors using the MDM/R Production environment for testing purposes. We have communicated these issues to the LDC community and reached out to those LDCs that may be negatively impacting the MDM/R.

Steps have been taken to improve the resilience and stability of the web-services meter reads retrieval facility to meet the increases in volume, including collaboratively working with the highest users of the service, adding capacity and tuning of the existing service, and planning an upgrade of the facility

[2] *Third party organizations are able to obtain access to a customer's electricity consumption by obtaining LDC web-presentment login credentials directly, with consent, from the customer. The LDC's web-presentment portal fulfills the request for electricity consumption information using the MDM/R Web Services meter reads retrieval facility.*

as part of the refresh of the computing infrastructure of the MDM/R 2013. Additional options are being explored including developing new MDM/R functions to support LDCs new and evolving requirements for retrieval of meter reads.

SME Initiatives

Since the upgrade of the MDM/R to EnergyIP R7.2, with the Measurement Canada 2011 Solution and Phase 1 of the Measurement Canada 2012 Solution last April, the SME has been engaged in three important initiatives. An update on each of the initiatives is summarized below.

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

In mid-April MDM/R functionality needed to support LDCs with their incorporation of cumulative register reads on customer TOU bills was put in place with the deployment of Release 7.2 to the MDM/R production environment.

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.

By the end of November, 60 LDCs have transitioned to the MDM/R interface to enable them to receive register reads for billing to support their compliance with Measurement Canada requirements. Based on requested transition schedules submitted by the LDCs, we expect to have 61 LDCs enabled to receive register reads for billing by the end of December. The SME continues to work with the remaining LDCs to obtain and confirm transition schedules.

Measurement Canada 2012 Phase 2

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.

The MDM/R is currently used by LDCs for billing on time-of-use rates that are supported by Release 7.2 which was deployed in April 2012. 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 software solution to deliver this Phase 2 functionality has been delivered and has been under testing for several months. Based on problems identified with the software, remaining testing required, and the approaching year-end code freeze and holiday schedule, our expectation is that this software will be made available for LDC testing and be deployed to Production in Q1 2013.

Upgrade of the Oracle Database Management System from Version 10g to Version 11g

In order to maintain the underlying database system of the MDM/R and deliver operational improvements, the SME upgraded the Oracle database management system from Version 10g to Version 11g. This upgrade was successfully completed ahead of schedule on November 24 and 25, 2012.

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

3.1 November Highlights

By the end of November there were 72 LDCs in production with 4.5 million meters enrolled in the MDM/R. Algoma successfully integrated with Canadian Niagara Power Inc. and enrolled with the MDM/R at the end of November. One LDC has not connected to and started testing with the MDM/R. This LDC 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[3]

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. Monthly breakdowns are provided for the current quarter only.

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.

[3] *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.*

November 30, 2012	MDM/R Cutover Targets		
	Production LDCs	RPP Eligible Customers	Enrolled in MDMR
Actuals - Based on Production LDCs data			
Pre- Q2 2010	9	3,000,954	2,797,752
Q3 2010	2	159,975	159,975
Q4 2010	4	122,608	122,608
Q1 2011	13	285,634	286,520
Q2 2011	14	291,542	291,723
Q3 2011	16	581,164	575,345
Q4 2011	5	39,203	38,142
Q1 2012	6	195,710	195,710
Q2 2012	2	54,950	54,950
Q3 2012	-	-	-
Q4 2012			
October 2012			
November 2012	1	11,183	11,183
Actual Totals for LDCs in Production	72	4,742,923	4,533,908
Projected - Based on enrolment plans submitted to the SME			
December 2012			
Q1 2013	0	0	
Projected Totals for Committed LDCs	72	0	
Totals (Actual and Projected)	72	0	4,533,908
Not Committed - LDCs have not provided enrolment plans			
Schedules not yet determined	1	84,515	
Totals including non-committed LDCs	73	4,827,438	4,533,908
% Complete of total RPP Eligible Customers Enrolled in the MDM/R		95.6%	

Notes:

(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[3]

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 November 30, 2012	MDM/R Enrolled Meter Counts by Distributor				
Distributor	Total Meters Enrolled through 31-Oct	Total Meters Enrolled through 30-Nov	Increased Meter Enrolment this Month	Total RPP Eligible Customers	% Complete for Production LDCs
Atikokan Hydro *	1,666	1,667	1	1,667	100.0%
Bluewater*	35,534	35,539	5	35,539	100.0%
Brant County Power *	9,820	9,834	14	9,834	100.0%
Brantford Power *	37,887	37,912	25	37,912	100.0%
Burlington Hydro *	64,845	64,865	20	64,865	100.0%
Cambridge*	51,948	52,006	58	52,006	100.0%
Centre Wellington*	6,547	6,551	4	6,551	100.0%
Chapleau*	1,274	1,274	0	1,274	100.0%
CNPI*[1]	28,442	39,625	11,183	39,625	100.0%
COLLUS Power *	16,017	16,039	22	16,039	100.0%
E.L.K. Energy	10,907	10,926	19	10,893	100.3%
Embrun *	1,946	1,946	0	1,946	100.0%
Enersource	188,186	188,225	39	193,139	97.5%
Entegrus*	40,218	40,227	9	40,227	100.0%
Erie Thames*	18,090	18,107	17	18,107	100.0%
Espanola*	3,303	3,304	1	3,304	100.0%
Essex Power*	28,182	28,182	0	28,182	100.0%
Festival Hydro*	19,681	19,721	40	19,721	100.0%
Fort Frances*	3,736	3,739	3	3,739	100.0%
Greater Sudbury*	46,838	46,910	72	46,910	100.0%
Grimsby Power*	10,378	10,382	4	10,382	100.0%
Guelph Hydro*	50,362	50,455	93	50,455	100.0%
Haldimand County *	21,077	21,105	28	21,105	100.0%
Halton Hills*	20,827	20,859	32	20,859	100.0%
Hearst Power*	2,709	2,709	0	2,709	100.0%
Horizon Utilities *	233,828	233,828	0	233,828	100.0%
Hydro 2000 *	1,205	1,207	2	1,207	100.0%
Hydro Hawkesbury *	6,537	6,537	0	6,537	100.0%
Hydro One	1,105,888	1,105,992	104	1,208,801	91.5%
Hydro One Brampton*	138,519	139,116	597	139,116	100.0%
Hydro Ottawa*	302,136	302,666	530	305,380	99.1%

Innisfil Hydro*	14,971	15,007	36	15,007	100.0%
Kenora Hydro*	5,556	5,560	4	5,560	100.0%
Kingston Hydro*	27,141	27,155	14	27,155	100.0%
Kitchener-Wilmot*	88,124	88,214	90	88,214	100.0%
Lakefront Utilities*	9,790	9,796	6	9,796	100.0%
Lakeland Power*	9,677	9,678	1	9,678	100.0%
London Hydro*	147,649	147,862	213	147,862	100.0%
Midland Power*	6,873	6,875	2	6,875	100.0%
Milton Hydro*	30,282	30,444	162	30,444	100.0%
NewmarketTay*	33,434	33,464	30	33,464	100.0%
Niagara Peninsula	48,690	48,828	138	49,766	98.1%
Niagara-on-the-Lake*	8,028	8,051	23	8,051	100.0%
Norfolk Power	19,089	19,113	24	18,932	101.0%
North Bay Hydro	22,611	22,619	8	23,680	95.5%
Northern Ontario Wires *	5,991	5,991	0	5,991	100.0%
Oakville Hydro	64,016	64,060	44	63,174	101.4%
Orangeville Hydro*	11,280	11,306	26	11,306	100.0%
Orillia Power *	13,062	13,062	0	13,062	100.0%
Oshawa PUC *	52,747	52,829	82	52,829	100.0%
Ottawa River*	10,481	10,492	11	10,492	100.0%
Parry Sound *	3,378	3,379	1	3,379	100.0%
Peterborough*	35,206	35,229	23	35,229	100.0%
PowerStream *	323,612	324,219	607	324,219	100.0%
PUC Distribution *	32,930	32,992	62	32,992	100.0%
Renfrew Hydro *	4,175	4,178	3	4,178	100.0%
Rideau St. Lawrence*	5,814	5,819	5	5,819	100.0%
Sioux Lookout *	2,731	2,732	1	2,732	100.0%
St. Thomas*	16,444	16,454	10	16,454	100.0%
Thunder Bay*	49,680	49,736	56	49,736	100.0%
Tillsonburg*	6,683	6,683	0	6,683	100.0%
Toronto Hydro	612,241	612,241	0	709,920	86.2%
Veridian *	114,475	114,671	196	114,671	100.0%
Wasaga*	12,479	12,496	17	12,496	100.0%
Waterloo North *	53,291	53,418	127	53,418	100.0%
Welland Hydro*	22,130	22,153	23	22,153	100.0%
Wellington North *	3,622	3,624	2	3,624	100.0%
West Coast Huron *	3,798	3,799	1	3,799	100.0%
Westario Power*	22,391	22,431	40	22,431	100.0%
Whitby Hydro*	40,501	40,545	44	40,545	100.0%
Woodstock Hydro *	15,227	15,248	21	15,248	100.0%
Total Meter Counts	4,518,833	4,533,908	15,075	4,742,923	95.6%

*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.

[1]Algoma's meters will be enrolled in the MDM/R as part of CNP. Therefore, the Algoma meters have been added to the CNP count of Total RPP Eligible Customers.

3.4 Distributor Testing Activities with the MDM/R (Three Month Outlook)

The System Integration Testing, Qualification Testing and Cutover timelines provided in this table 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 activity is expected until the third quarter of 2013.

As of November 30, 2012	*Distributor Testing Activities with the MDM/R (Three Month Outlook)*		
	Dec-12	Jan-13	Feb-13
In Enrolment Testing - SIT			
In Enrolment Testing - QT			
Cutover			

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 November 30, 2012

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
Reason Code:																	
1: IESO Change																	
2: LDC Plan change																	
3: LDC Not Ready																	
4: LDC Wave Failure																	
5: Update pending	November	November	November	December	December	December	December	December	December	January	January	January	January	February	February	February	February
	5	12	19	26	3	10	17	24	31	7	14	21	28	4	11	18	25
		S							Q							C	

RPP Eligible Customers	LDC Name																
84,515	ENWIN Powerlines Ltd.																
11,183	Algoma Power Inc. (scheduled for CIS amalgamation with CNPI)			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
1,667	Atikokan Hydro Inc.
35,539	Bluewater Power Distribution Corp.
9,834	Brant County Power Inc
37,912	Brantford Power Inc.
64,865	Burlington Hydro Inc.
52,006	Cambridge & North Dumfries Hydro Inc.
6,551	Centre Wellington Hydro Ltd.
1,274	Chapleau Public Utilities Corp.
27,028	CNP - Fort Erie
9,075	CNP - Port Colborne Hydro Inc
3,522	CNP - EOP
16,039	Collus Power Corp
1,946	Cooperative Hydro Embrun Inc.
10,893	E.L.K. Energy Inc.
193,139	Enersource Hydro Mississauga Inc.
40,227	Entegrus
18,107	Erie Thames Powerlines Corp. (amalgamated with Clinton Power and West Perth Power on June 1, 2011)
3,304	Espanola Regional Hydro Distribution Corp.
28,182	Essex Power Lines Corp.
19,721	Festival Hydro Inc.
3,739	Fort Frances Power Corp.
46,910	Greater Sudbury Hydro Inc.
10,382	Grimsby Power Inc.
50,455	Guelph Hydro Electric Systems Inc.
21,105	Haldimand County Hydro
20,859	Halton Hills
2,709	Hearst Power Distribution Company Ltd
233,828	Horizon Utilities Corporation
1,207	Hydro 2000 Inc.*
6,537	Hydro Hawkesbury Inc.
1,208,801	Hydro One
139,116	Hydro One Brampton Networks Inc.
305,380	Hydro Ottawa Limited
15,007	Innisfil Hydro Distribution Systems Ltd.
5,560	Kenora Hydro Electric Corp Ltd
27,155	Kingston Hydro Corporation
88,214	Kitchener-Wilmot Hydro Inc.
9,796	Lakefront Utilities Inc.
9,678	Lakeland Power Distribution Ltd.
147,862	London Hydro
6,875	Midland Power Utility Corp
30,444	Milton Hydro
33,464	Newmarket Hydro Ltd./Tay Hydro
49,766	Niagara Peninsula Energy Inc. (includes Peninsula West @ 14,351)
8,051	Niagara-on-the-Lake Hydro Inc.
18,932	Norfolk Power Distribution Inc.
23,680	North Bay Hydro Distribution Ltd
5,991	Northern Ontario Wires Inc.
63,174	Oakville Hydro Electricity Distribution Inc.
11,306	Orangeville Hydro Ltd. (includes Grand Valley (659))
13,062	Orillia Power Distribution Corp.
52,829	Oshawa PUC Networks Inc.
10,492	Ottawa River Power Corp.
3,379	Parry Sound Power Corp.
35,229	Peterborough Distribution Inc.
324,219	PowerStream Inc
32,992	PUC Distribution Inc.
4,178	Renfrew Hydro Inc.
5,819	Rideau St. Lawrence Distribution Inc.
2,732	Sioux Lookout Hydro
16,454	St. Thomas Energy Inc.
49,736	Thunder Bay Electricity Distribution Inc.
6,683	Tillsonburg Hydro Inc.
709,920	Toronto Hydro Electric Services Ltd.
114,671	Veridian Connections
12,496	Wasaga Distribution Inc.
53,418	Waterloo North Hydro Inc.
22,153	Welland Hydro-Electric System Corp.
3,624	Wellington North Power Inc.
3,799	West Coast Huron Energy Inc.
22,431	Westario Power Inc.
40,545	Whitby Hydro Energy Services Corp.
15,248	Woodstock Hydro Services Inc.
4,742,923	**Production total customer count**
4,827,438	**All LDC total customer count**