EXTERNAL

REPORT

Smart Metering Entity (SME)
Time-of-Use Mandate Progress Report
Through October 31, 2012

Issue 27.0 - November 22, 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)

[1] *LDCs in Ontario (meaning each Local Distribution Company or "distributor" as defined in the Ontario Energy Board Act, 1998)*

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.

- 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.

The SME remains confident that with ongoing tuning and collaborative support of LDCs, the MDM/R will continue to offer a stable system and effectively support LDCs' time-of-use implementation plans and ramp up of meters to full provincial volumes.

2.2 Processing Performance

At the end of October, the MDM/R was supporting 71 LDCs in production 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 October. However, when including intervals that had to temporarily be estimated, along with duplicate submittals of interval data, the MDM/R processed meter data for the equivalent of 4.5 million meters daily.[2]

In October, the MDM/R processed all meter reads, meter master data updates, and billing quantities within service level time lines except for one brief delay in meter read processing due to a timing change in meter read submissions from one LDC.

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. The MDM/R and SME have experienced increased resource demands as a result of malformed, delayed and redundant data submissions. 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

[2] *The number of meters processed by the MDM/R has been updated to better reflect processing loads experienced as a result of the poor quality of data submitted by some LDCs and their respective AMI Agents.*

- Submitting identical billing requests multiple times, and
- Submitting all billing requests as "off cycle".

As a result, this has sometimes cause modest delays in the timely delivery of information back to LDCs.

The SME continues to monitor LDCs who use the MDM/R web-services facility for bulk retrieval of meter reads, and we are working with the heaviest users of the service and their vendors to eliminate or shift their use of web-services outside of the meter read processing window. The original design was sized primarily to support retrieval of meter reads for ratepayers and agents; however, we have taken steps to improve the resilience and stability of the service to meet the increase in volume. Options are being explored with our vendors to enhance performance of the existing facility, as well as the development of new functionality for bulk ad-hoc meter reads retrieval that doesn't require the use web services.

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 October.

2.4 Training

The SME continues to adjust our training and workshop session offerings to meet the needs of the LDCs. The SME is currently working to re-design training data in our training environment to develop a more advanced training program that better supports LDCs integrating with the MDM/R.

2.5 Additional Risks and Issues

The SME has been engaged in three important 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.

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

MDM/R functionality needed to support the 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 in mid April.

It remains the LDCs responsibility to include cumulative register reads on customer TOU bills by making necessary changes to their own systems, business processes, and by conducting their own tests before transitioning.

By the end of October, 57 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 58 LDCs enabled to receive register reads for billing by the end of November. The SME continues to work with the remaining LDCs to obtain and confirm transition schedules.

Measurement Canada 2012 Phase 2

By way of review, Phase 2 of the Measurement Canada 2012 solution consists of the following components:

- 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.

Currently the MDM/R is used by LDCs for billing on time-of-use rates that are supported by Release 7.2 deployed in April 2012. The MC 2012 Phase 2 solution supports Measurement Canada requirements by allowing LDCs to use the MDM/R for billing based on hourly and periodic consumption. Additional quality indicators for estimated and calculated register reads and to designate externally submitted register reads as estimated are also part of the MC 2012 Phase 2 Solution..

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

The SME is required to upgrade 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. This upgrade has been communicated to the LDCs and is expected to be implemented November 24 and 25, 2012.

This upgrade doesn't change MDM/R functionality, and is considered lower in risk and complexity compared to the EnergyIP 7.2 upgrade. This low risk assessment is based on the fact that the SME has made several upgrades of the Oracle software, ranging from version 8i to the current version 10g since the MDM/R went into production operation in March 2008. Prior upgrades were accomplished without LDC involvement because no changes to the MDM/R functionality resulted and the outages for the upgrades were short.

Both functional and performance testing has been completed since testing of version 11g began in mid April. We have verified that there is no impact to MDM/R functionality under 11g and no significant performance degradation was observed. With no functional changes to the MDM/R, as with previous Oracle upgrades, LDC regression testing is deemed not to be necessary to proceed to production.

To minimize the impact and risk of this upgrade to MDM/R services and LDC operations, we have done similar planning and will use similar execution techniques to those used during the upgrade to EnergyIP 7.2. We will be fully coordinating and communicating with LDCs throughout the process.

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

3.1 October Highlights

By the end of October there were 71 LDCs in production with 4.5 million meters enrolled in the MDM/R. Two LDCs have not connected to and started testing with the MDM/R. One LDC has provided an integration date of November 19, 2012 with the MDM/R. The other 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 first quarter of 2014; however, no project schedule has been submitted.

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.*

October 31, 2012	MDM/R Cutover Targets		
	Production LDCs	RPP Eligible Customers	Enrolled in MDMR
Actuals - Based on Production LDCs data			
Pre- Q2 2010	9	2,997,381	2,796,114
Q3 2010	2	159,346	159,346
Q4 2010	4	122,398	122,398
Q1 2011	13	285,438	286,262
Q2 2011	14	291,218	291,398
Q3 2011	16	581,059	574,774
Q4 2011	5	39,166	38,123
Q1 2012	6	195,275	195,531
Q2 2012	2	54,861	54,887
Q3 2012	-	-	-
Q4 2012			
October 2012			
Actual Totals for LDCs in Production	71	4,726,142	4,518,833
Projected - Based on enrolment plans submitted to the SME			
November 2012	1	11,615	
December 2012			
Q1 2013	0	0	
Projected Totals for Committed LDCs	1	11,615	
Totals (Actual and Projected)	72	4,737,757	4,518,833
Not Committed - LDCs have not provided enrolment plans			
Schedules not yet determined	1	84,340	
Totals including non-committed LDCs	73	4,822,097	4,518,833
% Complete of total RPP Eligible Customers Enrolled in the MDM/R		93.7%	

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 October 31, 2012	MDM/R Enrolled Meter Counts by Distributor				
Distributor	Total Meters Enrolled through 30-Sep	Total Meters Enrolled through 31-Oct	Increased Meter Enrolment this Month	Total RPP Eligible Customers	% Complete for Production LDCs
Atikokan Hydro *	1,666	1,666	0	1,666	100.0%
Bluewater*	35,521	35,534	13	35,534	100.0%
Brant County Power *	9,801	9,820	19	9,820	100.0%
Brantford Power *	37,828	37,887	59	37,887	100.0%
Burlington Hydro *	64,799	64,845	46	64,845	100.0%
Cambridge*	51,917	51,948	31	51,948	100.0%
Centre Wellington*	6,546	6,547	1	6,547	100.0%
Chapleau*	1,273	1,274	1	1,274	100.0%
CNPI*[1]	28,416	28,442	26	40,057	71.0%
COLLUS Power *	15,963	16,017	54	16,017	100.0%
E.L.K. Energy	10,897	10,907	10	10,887	100.2%
Embrun *	1,946	1,946	0	1,946	100.0%
Enersource	188,109	188,186	77	192,960	97.5%
Entegrus*	40,195	40,218	23	40,218	100.0%
Erie Thames*	18,068	18,090	22	18,090	100.0%
Espanola*	3,301	3,303	2	3,303	100.0%
Essex Power*	28,182	28,182	0	28,182	100.0%
Festival Hydro*	19,651	19,681	30	19,681	100.0%
Fort Frances*	3,735	3,736	1	3,736	100.0%
Greater Sudbury	46,702	46,838	136	46,582	100.5%
Grimsby Power*	10,372	10,378	6	10,378	100.0%
Guelph Hydro*	50,292	50,362	70	50,362	100.0%
Haldimand County *	21,063	21,077	14	21,077	100.0%
Halton Hills*	20,811	20,827	16	20,827	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 *	1,202	1,205	3	1,205	100.0%
Hydro Hawkesbury *	6,537	6,537	0	6,537	100.0%
Hydro One	1,105,807	1,105,888	81	1,207,789	91.6%
Hydro One Brampton*	138,044	138,519	475	138,519	100.0%
Hydro Ottawa	301,647	302,136	489	305,380	98.9%

Innisfil Hydro*	14,912	14,971	59	14,971	100.0%
Kenora Hydro*	5,553	5,556	3	5,556	100.0%
Kingston Hydro*	27,106	27,141	35	27,141	100.0%
Kitchener-Wilmot*	88,017	88,124	107	88,124	100.0%
Lakefront Utilities*	9,790	9,790	0	9,790	100.0%
Lakeland Power*	9,664	9,677	13	9,677	100.0%
London Hydro*	147,433	147,649	216	147,649	100.0%
Midland Power*	6,867	6,873	6	6,873	100.0%
Milton Hydro*	30,174	30,282	108	30,282	100.0%
NewmarketTay*	33,374	33,434	60	33,434	100.0%
Niagara Peninsula	48,652	48,690	38	50,221	97.0%
Niagara-on-the-Lake*	8,019	8,028	9	8,028	100.0%
Norfolk Power	19,063	19,089	26	18,909	101.0%
North Bay Hydro	22,586	22,611	25	23,654	95.6%
Northern Ontario Wires *	5,991	5,991	0	5,991	100.0%
Oakville Hydro	63,909	64,016	107	63,192	101.3%
Orangeville Hydro*	11,239	11,280	41	11,280	100.0%
Orillia Power *	13,035	13,062	27	13,062	100.0%
Oshawa PUC *	52,687	52,747	60	52,747	100.0%
Ottawa River*	10,481	10,481	0	10,481	100.0%
Parry Sound *	3,375	3,378	3	3,378	100.0%
Peterborough	35,171	35,206	35	35,180	100.1%
PowerStream *	322,763	323,612	849	323,612	100.0%
PUC Distribution *	32,895	32,930	35	32,930	100.0%
Renfrew Hydro *	4,175	4,175	0	4,175	100.0%
Rideau St. Lawrence*	5,811	5,814	3	5,814	100.0%
Sioux Lookout *	2,726	2,731	5	2,731	100.0%
St. Thomas*	16,425	16,444	19	16,444	100.0%
Thunder Bay*	49,646	49,680	34	49,680	100.0%
Tillsonburg*	6,683	6,683	0	6,683	100.0%
Toronto Hydro	612,241	612,241	0	708,363	86.4%
Veridian *	114,301	114,475	174	114,475	100.0%
Wasaga*	12,461	12,479	18	12,479	100.0%
Waterloo North *	53,173	53,291	118	53,291	100.0%
Welland Hydro*	22,118	22,130	12	22,130	100.0%
Wellington North *	3,621	3,622	1	3,622	100.0%
West Coast Huron *	3,785	3,798	13	3,798	100.0%
Westario Power*	22,373	22,391	18	22,391	100.0%
Whitby Hydro*	40,440	40,501	61	40,501	100.0%
Woodstock Hydro *	15,217	15,227	10	15,227	100.0%
Total Meter Counts	4,514,780	4,518,833	4,053	4,737,757	95.4%

*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.

The amalgamation of CNP and Algoma is expected on November 19, 2012.[4]

As of October 31, 2012	*Distributor Testing Activities with the MDM/R (Three Month Outlook)*		
	Nov-12	Dec-12	Jan-13
In Enrolment Testing - SIT			
In Enrolment Testing - QT			
Cutover	CNPI / Algoma amalgamation		

[4] *Algoma's meters will be enrolled in the MDM/R as part of CNP, which is already in MDM/R production; therefore, no enrolment testing is required of Algoma.*

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 October 31, 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	M
Reason Code: 1: IESO Change 2: LDC Plan change 3: LDC Not Ready 4: LDC Wave Failure 5: Update pending	October	October	October	October	October	November	November	November	November	December	December	December	December	December	December	January	January	January
	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28
RPP Eligible Customers / LDC Name																		
84,340 ENWIN Powerlines Ltd.																		
11,615 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
1,666	Atikokan Hydro Inc.
35,534	Bluewater Power Distribution Corp.
9,820	Brant County Power Inc
37,887	Brantford Power Inc.
64,845	Burlington Hydro Inc.
51,948	Cambridge & North Dumfries Hydro Inc.
6,547	Centre Wellington Hydro Ltd.
1,274	Chapleau Public Utilities Corp.
15,845	CNP - Fort Erie
9,075	CNP - Port Colborne Hydro Inc
3,522	CNP - EOP
16,017	Collus Power Corp
1,946	Cooperative Hydro Embrun Inc.
10,887	E.L.K. Energy Inc.
192,960	Enersource Hydro Mississauga Inc.
40,218	Entegrus
18,090	Erie Thames Powerlines Corp. (amalgamated with Clinton Power and West Perth Power on June 1, 2011)
3,303	Espanola Regional Hydro Distribution Corp.
28,182	Essex Power Lines Corp.
19,681	Festival Hydro Inc.
3,736	Fort Frances Power Corp.
46,582	Greater Sudbury Hydro Inc.
10,378	Grimsby Power Inc.
50,362	Guelph Hydro Electric Systems Inc.
21,077	Haldimand County Hydro
20,827	Halton Hills
2,709	Hearst Power Distribution Company Ltd
233,828	Horizon Utilities Corporation
1,205	Hydro 2000 Inc.*
6,537	Hydro Hawkesbury Inc.
1,207,789	Hydro One
138,519	Hydro One Brampton Networks Inc.
305,380	Hydro Ottawa Limited
14,971	Innisfil Hydro Distribution Systems Ltd.
5,556	Kenora Hydro Electric Corp Ltd
27,141	Kingston Hydro Corporation
88,124	Kitchener-Wilmot Hydro Inc.
9,790	Lakefront Utilities Inc.
9,677	Lakeland Power Distribution Ltd.
147,649	London Hydro
6,873	Midland Power Utility Corp
30,282	Milton Hydro
33,434	Newmarket Hydro Ltd./Tay Hydro
50,221	Niagara Peninsula Energy Inc. (includes Peninsula West @ 14,351)
8,028	Niagara-on-the-Lake Hydro Inc.
18,909	Norfolk Power Distribution Inc.
23,654	North Bay Hydro Distribution Ltd
5,991	Northern Ontario Wires Inc.
63,192	Oakville Hydro Electricity Distribution Inc.
11,280	Orangeville Hydro Ltd. (includes Grand Valley (659))
13,062	Orillia Power Distribution Corp.
52,747	Oshawa PUC Networks Inc.
10,481	Ottawa River Power Corp.
3,378	Parry Sound Power Corp.
35,180	Peterborough Distribution Inc.
323,612	PowerStream Inc
32,930	PUC Distribution Inc.
4,175	Renfrew Hydro Inc.
5,814	Rideau St. Lawrence Distribution Inc.
2,731	Sioux Lookout Hydro
16,444	St. Thomas Energy Inc.
49,680	Thunder Bay Electricity Distribution Inc.
6,683	Tillsonburg Hydro Inc.
708,363	Toronto Hydro Electric Services Ltd.
114,475	Veridian Connections
12,479	Wasaga Distribution Inc.
53,291	Waterloo North Hydro Inc.
22,130	Welland Hydro-Electric System Corp.
3,622	Wellington North Power Inc.
3,798	West Coast Huron Energy Inc.
22,391	Westario Power Inc.
40,501	Whitby Hydro Energy Services Corp.
15,227	Woodstock Hydro Services Inc.
4,726,142	**Production total customer count**
4,822,097	**All LDC total customer count**

Does not include Algoma