



# Smart Metering Entity (SME) Time-of-Use Mandate Progress Report Through November 30, 2011

Issue 16.0 - December 20, 2011

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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 (LDC¹) 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 (<a href="http://www.nei.gov.on.ca/">http://www.nei.gov.on.ca/</a>), the Ontario Energy Board (<a href="http://www.smi-ieso.ca/">http://www.smi-ieso.ca/</a>).

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 (2011-2012)

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<sup>&</sup>lt;sup>1</sup> 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.

### 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 continued to experience stable and reliable operation in November.

The IESO 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 November, the MDM/R was supporting 64 LDCs in production with a total of 4 million enrolled smart meters. The MDM/R processed an average of 3.08 million meter reads daily with a single day peak of 3.32 million meters reporting on November 29, 2011, the largest single day peak to date.

In November, 100% of the meter reads, meter master data updates and billing quantity requests were processed within contracted service levels, except for three instances where responses to billing quantity requests were delayed for a short period.

To help ensure reliable operation of the MDM/R, the SME is working with LDCs and our vendors to reduce impact on the MDM/R associated with poor quality data submissions from a few LDCs and their metering providers.

Note: LDCs continue to be asked to schedule their synchronization files in advance whenever they contain an initial ramp-up of more than 15,000 meters in order to avoid conflicting requests. This is necessary only for the initial ramp up of large numbers of smart meters and will not be needed once full production volumes have been reached.

#### 2.3 Resourcing

The SME continues to make resources available to LDCs in support of their time-of-use implementation plans. There were no significant resource changes in November.

#### 2.4 Training

The SME continues to adjust our training and workshop session offerings to meet the needs of the LDCs. Training sessions on the use of the MDM/R's graphical user interface (GUI) are conducted

both on-site at our facilities and at LDC facilities. For training details, please refer to the training page and workshop calendar for the remainder of 2011 and the first six months of 2012 on the SME website (http://www.smi-ieso.ca/training).

The Smart Metering Entity (SME) is actively engaged with the distributors to facilitate their enrolment process and to help them meet their mandated TOU dates.

With most of the remaining non-production distributors in various stages of preparations to integrate with the MDM/R we are confident that the SME can continue to provide support to LDCs in all stages of enrolment testing.

The projected activities for the next four months now include:

- Six distributors are scheduled to be involved in enrolment testing activities in December and six in January, and two in February
- Two distributors are scheduled to cut over to production in January, five in February and one in March.

#### 2.5 Additional Risks and Issues

#### Measurement Canada (MC)

As previously reported, all the changes required to the MDM/R to support the province's Measurement Canada 2011 Solution have been received and have been under test for several months. These changes, delivered as part of a new version of the software (Release 7.2) were made available for LDC testing on July 12. This provides a viable platform against which LDCs can test the changes to their systems which support the MC 2011 solution and prepare themselves for its migration into production.

Throughout the month of November the SME has been reassessing the timing for the deployment of R7.2, with the Measurement Canada 2011 Solution, to the MDM/R production environment. This reassessment has considered the status of issues needing remediation before R7.2 can be considered production ready. Although our progress has been considerable, it has not been sufficient to keep to the mid January 2012 target production deployment date.

Based on our analysis completed to date the SME believes that a March deployment is achievable. Once further scheduling details are available for the remediation of the remaining issues, the SME will be in a position to put forward a revised High Level R7.2 Target Deployment Schedule. Measurement Canada, the Ministry of Energy, the Ontario Energy Board and the Electricity Distributors Association have all been informed of the situation.

The SME requires LDCs to complete a certification process before transitioning to the new XML Billing Service Standard interface of the Measurement Canada 2011 solution. Many LDCs are in the process of conducting their R7.2 certification testing as per the SME's requirements. The SME is doing a detailed review of the remaining open issues to see if they will impact the results of the R7.2 certification testing. Based the SME's assessment to date it is expected there will be little or no impact to R7.2 certification testing; hence, the testing currently underway should proceed as scheduled because the results are expected to remain valid. When the detailed review is completed, we will communicate the final findings to all the LDCs.

Several LDCs yet to complete MDM/R enrolment testing and cutover to production have been timing their efforts around the mid January R7.2 target deployment date. While this delay will undoubtedly impact those plans, the SME has offered a contingency plan that would allow these LDCs to conduct enrolment testing under R7.2 but cutover to the production system under R7.0. Without the availability of the new XML Billing Quantity Interface in production most of these LDCs will not be

able to bill their customers on TOU rates; however, all the system functionality, reporting and business processes around meter read data and synchronization can be fully exercised under R7.0. Taking advantage of this early opportunity should shorten the time needed by these LDCs to begin billing customers once R7.2 is promoted to production.

The SME continues to work closely with the LDCs as the solution rolls out and they prepare their systems. Workshops, drop-in sessions, and webinars have been delivered to support the LDCs preparations for Release 7.2 and Measurement Canada 2011 solution. Please refer to the SME website (<a href="http://smi-ieso.ca/">http://smi-ieso.ca/</a>) for materials related to the promotion of Release 7.2 and the Measurement Canada 2011 Solution.

The SME and eMeter have finalized the design and initiated development of elements of Measurement Canada's requirements (known as the "Measurement Canada 2012 Solution"). Elements of this solution are targeted to be delivered in phases in 2012 and target implementation dates are yet to be scheduled.

# Distributor Readiness – MDM/R Integration and Meter Enrolment

#### 3.1 November Highlights

By the end of November there were 64 LDCs in production with four million meters enrolled in the MDM/R.

Enrolment activities in November included:

- **Cutover**: 0 LDCs
- Enrolment Testing in Progress: Bluewater Power, Cambridge and North Dumfries Hydro, Greater Sudbury Hydro
- Unit Testing: 7 LDCs were engaged in various stages of Unit testing. They included Cambridge
  and North Dumfries Hydro, Canadian Niagara Power, Festival Hydro, Greater Sudbury Hydro,
  Grimsby Power, Peterborough Distribution and Westario Power.

Note: By the end of November, there were two LDCs that had not connected to and started testing with the MDM/R.

#### 3.2 MDM/R Cutover Targets

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 number of meters enrolled in the MDM/R for Hydro 2000, Centre Wellington and Wellington North were not available from the OEB filings and therefore the source used for these numbers in this report is the MDM/R. 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.

As of	MD	M/R Cutover T	argets
November 30, 2011	Production LDCs	RPP Eligible Customers	Enrolled in MDMR
<b>Actuals - Based on Production</b>	LDCs data		
Pre- Q2 2010	9	2,949,790	2,735,108
Q3 2010	2	156,642	156,555
Q4 2010	4	120,840	119,869
Q1 2011	13	282,027	283,441
Q2 2011	15	293,311	290,562
Q3 2011	16	567,213	394,895
Q4 2011			
October 2011	5	38,805	37,809
November 2011	-	-	-
Actual Totals for LDCs in Production	64	4,408,628	4,018,239
Projected - Based on enrolme	nt plans submitt	ed to the SME	
Q4 2011	0	0	
2012	8	246,840	
Projected Totals for Committed LDCs	8	246,840	
Totals (Actual and Projected)	72	4,655,468	4,018,239
Not Committed - LDCs have no	ot provided enro	olment plans	
Schedules not yet determined	2	95,497	
Totals including non-committed LDCs	72	4,750,965	4,018,239
% Complete of total RPP Eligible ( Enrolled in the MDM/R	Customers	84	1.6%

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

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 number of meters enrolled in the MDM/R for Hydro 2000, Centre Wellington and Wellington North were not available from the OEB filings and therefore the source used for these numbers in this report is the MDM/R. 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, 2011	M	IDM/R Enrolle	d Meter Count	s by Distribut	or
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	1,653	1,686	33	1,686	100.0%
<b>Brant County Power</b>	9,481	9,517	36	9,546	99.7%
<b>Brantford Power</b>	37,344	37,393	49	37,561	99.6%
<b>Burlington Hydro</b>	63,709	63,778	69	63,778	100.0%
Centre Wellington	6,417	6,420	3	6,422	100.0%
Chapleau	1,272	1,272	0	1,274	99.8%
Chatham-Kent	31,772	31,772	0	31,772	100.0%
<b>COLLUS Power</b>	15,673	15,695	22	15,699	100.0%
E.L.K. Energy	10,701	10,708	7	10,805	99.1%
Embrun	1,942	1,942	0	1,942	100.0%
Enersource	8,769	21,803	13,034	190,687	11.4%
<b>Erie Thames</b>	17,802	17,807	5	17,886	99.6%
Espanola	3,285	3,286	1	3,285	100.0%
Essex Power	27,636	27,817	181	27,922	99.6%
Fort Frances	3,732	3,732	0	3,732	100.0%
Guelph Hydro	47,894	47,935	41	48,044	99.8%
Haldimand County	20,878	20,899	21	20,905	100.0%
Halton Hills	20,643	20,643	0	20,643	100.0%
<b>Hearst Power</b>	2,690	2,690	0	2,504	107.4%
<b>Horizon Utilities</b>	228,571	228,832	261	233,082	98.2%
Hydro 2000	1,187	1,188	1	1,190	99.8%
Hydro Hawkesbury	5,374	5,350	-24	5,350	100.0%
Hydro One	1,082,301	1,082,301	0	1,197,672	90.4%
<b>Hydro One Brampton</b>	135,530	135,912	382	135,999	99.9%
Hydro Ottawa	290,613	291,775	1,162	301,296	96.8%
Innisfil Hydro	14,586	14,619	33	14,740	99.2%

As of					
November 30, 2011	IV	IDM/R Enrolle	d Meter Count	s by Distribut	or
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
Kenora Hydro	5,502	5,502	0	5,502	100.0%
Kingston Hydro	26,330	26,353	23	26,494	99.5%
Kitchener-Wilmot	86,526	86,873	347	86,893	100.0%
Lakefront Utilities	9,533	9,535	2	9,535	100.0%
Lakeland Power	9,548	9,563	15	9,488	100.8%
London Hydro	137,751	138,768	1,017	140,499	98.8%
Middlesex Power	7,911	7,918	7	7,918	100.0%
Midland Power	6,831	6,833	2	6,833	100.0%
Milton Hydro	28,129	28,612	483	27,971	102.3%
NewmarketTay	32,639	32,639	0	32,639	100.0%
Niagara Peninsula	47,760	47,786	26	49,790	96.0%
Niagara-on-the-Lake	7,876	7,897	21	7,903	99.9%
Norfolk Power	17,725	17,864	139	18,825	94.9%
North Bay Hydro	22,484	22,484	0	23,476	95.8%
Northern Ontario Wir	5,797	5,815	18	6,037	96.3%
Oakville Hydro	64,673	64,673	0	62,708	103.1%
Orangeville Hydro	11,084	11,093	9	11,094	100.0%
Orillia Power	12,721	12,793	72	12,876	99.4%
Oshawa PUC	51,998	52,126	128	52,623	99.1%
Ottawa River	10,231	10,263	32	10,399	98.7%
Parry Sound	3,330	3,333	3	3,333	100.0%
PowerStream	314,144	314,968	824	312,000	101.0%
PUC Distribution	32,675	32,634	-41	32,554	100.2%
Renfrew Hydro	108	3,872	3,764	3,872	100.0%
Rideau St. Lawrence	5,775	5,775	0	5,775	100.0%
Sioux Lookout	2,701	2,689	-12	2,689	100.0%
St. Thomas	16,267	16,269	2	16,269	100.0%
Thunder Bay	49,406	49,440	34	49,172	100.5%
Tillsonburg	6,327	6,336	9	6,672	95.0%
Toronto Hydro	612,241	612,241	0	700,833	87.4%
Veridian	111,764	111,968	204	112,525	99.5%
Wasaga	12,224	12,244	20	12,247	100.0%
Waterloo North	51,793	51,844	51	52,057	99.6%
Welland Hydro.	21,723	21,865	142	21,583	101.3%
Wellington North	113	3,594	3,481	3,596	99.9%
West Coast Huron	3,656	3,628	-28	3,628	100.0%
Whitby Hydro	38,237	38,349	112	39,976	95.9%
Woodstock Hydro	15,026	15,028	2	14,922	100.7%
Total Meter Counts	3,992,014	4,018,239	26,225	4,408,628	91.1%

## 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. Those LDC's names that appear in black are entering unit testing for the first time in the indicated month.

As of November 30, 2011	Distr	ibutor Testing Activities with (Three Month Outlook	
140Veilibei 30, 2011	Dec-11	Jan-12	Feb-12
In Unit Testing	Festival Hydro	Festival Hydro	16012
Ome resumb	Grimsby Power		
	Peterborough		
	Westario Power		
In Enrolment	Cambridge	Festival Hydro	
Testing - SIT	CNPI - EOP	Peterborough	
	CNPI - Fort Erie		
	CNPI - Port Colborne Hydro		
	Grimsby Power		
	Westario Power		
In Enrolment	Bluewater	Cambridge	Festival Hydro
Testing - QT	Greater Sudbury Hydro	CNPI - EOP	Peterborough
		CNPI - Fort Erie	
		CNPI - Port Colborne Hydro	
		Festival Hydro	
		Grimsby Power	
		Peterborough	
		Westario Power	
Cutover		Bluewater	Cambridge
		Greater Sudbury Hydro	CNPI - EOP
			CNPI - Fort Erie
			CNPI - Port Colborne Hydro
			Grimsby Power
			Peterborough
			Westario Power

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#### 3.5 MDM/R Enrolment Wave Calendar (2011-2012)

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/F As of Noven	MDM/R Enrolment Wave C	e Calendar				S S	SIT-normally 2 weeks	rmall	y 2 w	seks			Q QT - normally 4 weeks	-nor	ma II	y y	eeks			O O	Cutover-normally 2 weeks	
		Reason for Latest								_												
		Change	Σ	Σ	Z Z	2 Z	Z Z	Σ	Σ Σ	Σ	Σ	<u> </u>	2	Σ Σ	Σ	Σ	∑ ∑	Σ_	Σ	Σ	Σ	Σ
		Reason Code:																				
		1: IESO Change																				
		3: LDC Not Ready																				
		4: LDC Wave Failure	١٥١	١٥٨	)ec	) <del>9</del> (	)ec	gu	gu gu	gu	ยม	qə.	qə <sub>:</sub>	qə <sub>:</sub>	Var	Nar	Aar	Var Apr	Jq/	Jd/	JQ/	/br
		6		7	5	_		5						_	. 5	12					_	ا ا
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RDD Fligible																						
Customers	LDC Name																					ĺ
•	•		<u> </u>		<u> </u>	<u> </u>	<b>A</b>	1	<u> </u>	$\rightarrow$	$\blacksquare$	À	<u> </u>	<u> </u>	<b>•</b>	٨	À	<u> </u>	•	*	1	<b>F</b>
11,542	Algoma Power Inc. (scheduled for CIS amalgamation with CNPI)																					
35,381	Bluewater Power Distribution Corp.	2	S	o o	o ~			O	C													
50,672	Cambridge & North Dumfries Hydro Inc.	2, 5	o S	Ø	s s			Ø	o o	Ø	S	O										
3,529	CNPI - EOP	2	S	Q	S	S		Ø	Q Q	Ø	C	C										
15,595	CNPI - Fort Erie	2	S	Ø	QS	S		Ø	Q Q	Ø	C	C										
6,055	CNPI - Port Colborne Hydro Inc	2	o S	o o	S	S		Ø	g O	Ø	O	C										
83,955	ENWIN Powerlines Ltd.																					
19,335	Festival Hydro Inc.	2, 3, 5							S	S	Ø	Ö	o o	~		0	၁					
46,169	Greater Sudbury Hydro Inc.	2	S	o o	σ	Ø			၁ ၁													
10,153	Grimsby Power Inc.	2	S	Ŏ	o o	SS	- (0		o o	Ø	ď	0	C									
34,997	Peterborough Distribution Inc.	2	ပ					S	S	Ø	Ø	Ø	<b>o</b> o									
21,954	Westario Power Inc.	2	S	o o	Ø	S	- 10		0 0	Ø	Ŏ	0	C									
342,337																						

	MDMR Production LDCs	
1,686	Atikokan Hydro Inc.	
9,546	Brant County Power Inc	
37,561	Brantford Power Inc.	
63,778	Burlington Hydro Inc.	
6,422	Centre Wellington Hydro Ltd.	
-		
1,274	Chapleau Public Utilities Corp.	
31,772	Chatham-Kent Hydro Inc.	
15,699	Collus Power Corp	
1,942	Cooperative Hydro Embrun Inc.*	
10,805	E.L.K. Energy Inc.	
190,687	Enersource Hydro Mississauga Inc.	
17,886	Erie Thames Powerlines Corp. (amalgamated with Clinton Power and West	
3,285	Perth Power on June 1, 2011) Espanola Regional Hydro Distribution Corp.	
·		
27,922	Essex Power Lines Corp.	
3,732	Fort Frances Power Corp.	
48,044	Guelph Hydro Electric Systems Inc.	
20,905	Haldimand County Hydro	
20,643	Halton Hills	
2,504	Hearst Power Distribution Company Ltd	
233,082	Horizon Utilities Corporation	
1,190	Hydro 2000 Inc.*	
5,350	Hydro Hawkesbury Inc.	
1,197,672	Hydro One	
135,999	Hydro One Brampton Networks Inc.	
301,296	Hydro Ottawa Limited	
14,740	Innisfil Hydro Distribution Systems Ltd.	
5,502	Kenora Hydro Electric Corp Ltd	
86,893	Kitchener-Wilmot Hydro Inc.	
26,494	Kingston Hydro Corporation	
9,535	Lakefront Utilities Inc.	
9,488	Lakeland Power Distribution Ltd.	
140,499	London Hydro	
140,499	Middlesex Power Distribution Corp. (bought	
7,918 6,833	Newbury(185) and Dutton (622))  Midland Power Utility Corp	
27,971	Milton Hydro	
32,639	Newmarket Hydro Ltd./Tay Hydro	
7,903	Niagara-on-the-Lake Hydro Inc.	
49,790 6,037	Niagara Peninsula Energy Inc. (includes Peninsula West @ 14,351) Northern Ontario Wires Inc.	
23,476	North Bay Hydro Distribution Ltd *	
18,825	Norfolk Power Distribution Inc.	
62,708 11,094	Oakville Hydro Electricity Distribution Inc.  Orangeville Hydro Ltd. (includes Grand Valley (659))	
12,876	Orillia Power Distribution Corp.	
	Oshawa PUC Networks Inc.	
52,623		
10,399	Ottawa River Power Corp.	
3,333	Parry Sound Power Corp.	
312,000	PowerStream Inc	
32,554	PUC Distribution Inc.	
3,872	Renfrew Hydro Inc.	
5,775	Rideau St. Lawrence Distribution Inc.	
2,689	Sioux Lookout Hydro	
16,269	St. Thomas Energy Inc.	
49,172	Thunder Bay Electricity Distribution Inc.	
6,672	Tillsonburg Hydro Inc.	
700,833	Toronto Hydro Electric Services Ltd.	
112,525	Veridian Connections	
12,247	Wasaga Distribution Inc.	
52,057	Waterloo North Hydro Inc.	
21,583	Welland Hydro-Electric System Corp.	
3,596	Wellington North Power Inc.	
3,628	West Coast Huron Energy Inc.	
39,976	Whitby Hydro Energy Services Corp.	
14,922	Woodstock Hydro Services Inc.	
4 400 630	Production total customer count	
4,408,628 4,750,965		

<sup>\*</sup> indicates LDCs that cut over in November