## EXTERNAL





## Smart Metering Entity (SME) Time-of-Use Mandate Progress Report Through April 30, 2013

Issue 33.0 - May 23, 2013

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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<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.

<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)

- 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

### 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 address LDC support and service requests in a timely manner.

The MDM/R continues to offer a stable, centralized system that effectively supports LDCs with their time-of-use billing. The SME is working with LDCs as they transition to the 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 April, the MDM/R was supporting 71 LDCs with a total of 4.6 million enrolled smart meters. In April, the MDM/R processed an average of 9.6% 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 the reprocessing of duplicate data submissions.

In April the MDM/R processed 97.3% of meter reads within service level time lines. The MDM/R processed 100% of meter master data updates, and 100% of billing quantities within contracted service level time lines.

The SME continues to proactively work with LDCs and their metering providers directly to manage the quality and timing of meter read data submissions to the MDM/R. To assist LDCs with this, a performance metrics report, which is sent to each LDC on a monthly basis, has been recently updated to provide more information regarding LDC data submissions to the MDM/R.

## 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 March.

## 2.4 Training

A new advanced MDM/R user interface training program for LDCs has been developed which includes a variety of scenarios for investigation and exploration stemming from meter read data submission, synchronization and billing exceptions. The advanced training session pilot on April 30, 2013 was a success, and further sessions for LDCs are scheduled between June and December 2013. Consult the SME website for the complete 2013 training schedule.

### 2.5 Additional Risks and Issues

#### SME INITIATIVES

#### **Smart Metering Charge**

On May 2, 2013 the IESO issued a participant news bulletin regarding the Smart Metering Charge. The April invoice issued to LDCs on May 15, 2013 included the OEB approved recovery charge of \$0.788 per Residential and General Service <50kW customer per month. This monthly charge will appear on the LDC's month-end settlement statement under charge type 9980 to recover the cost of developing and implementing the Meter Data Management Repository (MDM/R) and its information technology to collect and process data from smart meters throughout the province. All LDCs who are receiving service from the MDM/R have signed the approved "Smart Metering Agreement for Distributors" agreement which articulates the roles and responsibilities of the SME and the LDCs.

## 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 April, 67 LDCs<sup>2</sup> 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

The MC 2012 Phase 2 solution allows LDCs to use the MDM/R for billing based on hourly and periodic consumption further supporting Measurement Canada requirements. 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 in the third or fourth Quarter of 2013 and be deployed to Production by the end of the fourth quarter of 2013 or early 2014, after the refresh of the MDM/R computing infrastructure is completed.

#### **Green Button Initiative**

<sup>&</sup>lt;sup>2</sup> This number has been adjusted for the amalgamated LDCs that continue to operate as separate organizations in the MDM/R.

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, with customer consent, to access electricity consumption information on behalf of consumers from LDCs and the MDM/R ("Connect My Data").

The IESO continues to provide 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 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.

#### MDM/R Data Access

By way of background, the provincial Meter Data Management and Repository (MDM/R) was procured and implemented in support of the Ministry of Energy's specifications established in 2006. Those specifications were focused on the implementation of time-of-use billing, supporting LDC metering operations, and included requirements to provide access to data to LDCs and to authorized third parties, such as Retailers and the OPA.

The SME is engaged in providing support to the Ministry's initiatives for improving access to electricity data stored in the MDM/R and deriving additional value from that data. Some of those initiatives include:

- The Ministry's 'Green Button Initiative' launched on November 21, 2012 with the objective to provide electricity consumers with greater access to information about their energy consumption, and encourage the creation of new innovative tools for consumers to help conserve energy and save on electricity costs.
- The Ministry's MDM/R Road Map initiative launched in March 2013 to identify opportunities to derive additional value from the investments already made in the Province's smart metering infrastructure and the MDM/R.
- In accordance with a Ministry Directive, on February 11, 2013, the OEB's Supplemental Report on Smart Grid stated that "The Smart Metering Entity (SME) must investigate opportunities for providing access to depersonalized, generic data to third parties for planning, research, and customer benchmarking purposes (e.g., allowing customers to compare their consumption with that of their neighbours)."

The MDM/R is experiencing volumes of data access requests at a level of two to three times higher than was specified for the MDM/R. The volume of these requests continues to increase to support OEB and OPA needs, as well as those of customers authorizing multiple third party service providers access to their data. In addition, many in the LDC community are accessing the data in ways that were not originally anticipated and this further increases the level of access requests.

We have initiated a project to define the requirements, architecture and plans for the development of a data access facility to support the current and anticipated data request volumes, along with the evolving needs for data access.

As we undertake this project, we will be collaborating with the Ministry, LDCs, OEB, OPA, the Privacy Commissioner of Ontario, and other stakeholders as needed, to ensure that synergies and cost efficiencies are realized as other projects are initiated within those organizations that intersect with this project.

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

### 3.1 April Highlights

By the end of April there were 71 LDCs in production with 4.6 million meters enrolled in the MDM/R. The remaining LDC has started Unit Testing, and onsite training is scheduled for June 11, 2013. 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>3</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.

<sup>&</sup>lt;sup>3</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:

<sup>•</sup> 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.

<sup>•</sup> 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.

April 30, 2013	MDM/R Cutover Targets									
	Production LDCs	RPP Eligible Customers	Enrolled in MDMR							
Actuals - Based on Productior	n LDCs data									
Pre- Q2 2010	9	3,014,058	2,821,868							
Q3 2010	2	161,746	161,746							
Q4 2010	4	123,321	123,321							
Q1 2011	13	286,672	287,272							
Q2 2011	14	292,797	292,797							
Q3 2011	16	583,547	579,423							
Q4 2011	5	39,237	38,193							
Q1 2012	6	207,871	207,871							
Q2 2012	2	55,217	55,217							
Q3 2012	-	-	-							
Q4 2012	-	-	-							
Q1 2013	-	-	-							
Q2 2013										
Q3 2013										
Actual Totals for LDCs in Production	71	4,764,466	4,567,708							
Projected - Based on enrolme	ent plans submitt	ed to the SME								
Q4 2013	1	84,403								
Projected Totals for Committed LDCs	72	84,403								
Totals (Actual and Projected)	72	4,848,869	4,567,708							
% Complete of total RPP Eligible Enrolled in the MDM/R	Customers	9!	5.9%							
Notes:										

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<sup>3</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 April 30, 2013	М	DM/R Enrolle	ed Meter Count	s by Distribut	or
Distributor	Total Meters Enrolled through 31-Mar	Total Meters Enrolled through 30-Apr	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*	35,590	35,599	9	35,599	100.0%
Brant County Power *	9,870	9,899	29	9,899	100.0%
Brantford Power*	38,041	38,063	22	38,063	100.0%
Burlington Hydro*	64,946	64,959	13	64,959	100.0%
Cambridge*	52,132	52,022	-110	52,022	100.0%
Centre Wellington*	6,568	6,586	18	6,586	100.0%
Chapleau*	1,276	1,276	0	1,276	100.0%
CNPI*	40,117	40,130	13	40,130	100.0%
COLLUS Power*	16,082	16,097	15	16,097	100.0%
E.L.K. Energy	10,973	10,978	5	10,942	100.3%
Embrun*	1,949	1,949	0	1,949	100.0%
Enersource	189,169	189,372	203	194,033	97.6%
Entegrus*	40,269	40,313	44	40,313	100.0%
Erie Thames*	18,111	18,133	22	18,133	100.0%
Espanola*	3,312	3,313	1	3,313	100.0%
Essex Power*	28,284	28,310	26	28,310	100.0%
Festival Hydro*	19,837	19,850	13	19,850	100.0%
Fort Frances*	3,739	3,739	0	3,739	100.0%
Greater Sudbury*	47,080	47,171	91	47,171	100.0%
Grimsby Power*	10,411	10,414	3	10,414	100.0%
Guelph Hydro*	50,673	50,745	72	50,745	100.0%
Haldimand County *	21,143	21,151	8	21,151	100.0%
Halton Hills*	21,003	21,053	50	21,053	100.0%
Hearst Power*	2,709	2,709	0	2,709	100.0%
Horizon Utilities*	234,442	234,749	307	234,749	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>	1,119,644	1,119,701	57	1,208,801	92.6%
Hydro One Brampton*	140,321	140,693	372	140,693	100.0%
Hydro Ottawa*	307,466	307,783	317	307,783	100.0%

Innisfil Hydro*	15,090	15,108	18	15,108	100.0%
Kenora Hydro*	5,574	5,575	1	5,575	100.0%
Kingston Hydro*	27,191	27,209	18	27,209	100.0%
Kitchener-Wilmot*	88,516	88,575	59	88,575	100.0%
Lakefront Utilities*	9,868	9,876	8	9,876	100.0%
Lakeland Power*	9,715	9,719	4	9,719	100.0%
London Hydro*	148,328	148,472	144	148,472	100.0%
Midland Power*	6,894	6,894	0	6,894	100.0%
Milton Hydro*	31,359	31,676	317	31,676	100.0%
NewmarketTay*	33,659	33,770	111	33,770	100.0%
Niagara Peninsula	50,388	50,455	67	49,954	101.0%
Niagara-on-the-Lake*	8,128	8,128	0	8,128	100.0%
Norfolk Power*	19,189	19,195	6	19,195	100.0%
North Bay Hydro	22,647	22,650	3	23,694	95.6%
Northern Ontario Wires*	5,991	5,991	0	5,991	100.0%
Oakville Hydro	64,357	64,049	-308	63,449	100.9%
Orangeville Hydro*	11,347	11,355	8	11,355	100.0%
Orillia Power*	13,075	13,099	24	13,099	100.0%
Oshawa PUC*	53,138	53,203	65	53,203	100.0%
Ottawa River*	10,544	10,549	5	10,549	100.0%
Parry Sound*	3,387	3,389	2	3,389	100.0%
Peterborough*	35,358	35,367	9	35,367	100.0%
PowerStream*	325,851	326,345	494	326,345	100.0%
PUC Distribution*	32,992	32,992	0	32,992	100.0%
Renfrew Hydro*	4,182	4,183	1	4,183	100.0%
Rideau St. Lawrence*	5,801	5,801	0	5,801	100.0%
Sioux Lookout*	2,737	2,737	0	2,737	100.0%
St. Thomas*	16,523	16,569	46	16,569	100.0%
Thunder Bay*	49,840	49,850	10	49,850	100.0%
Tillsonburg*	6,683	6,683	0	6,683	100.0%
Toronto Hydro	612,241	612,241	0	715,331	85.6%
Veridian*	115,209	115,290	81	115,290	100.0%
Wasaga*	12,534	12,542	8	12,542	100.0%
Waterloo North*	53,664	53,716	52	53,716	100.0%
Welland Hydro*	22,204	22,212	8	22,212	100.0%
Wellington North*	3,642	3,644	2	3,644	100.0%
West Coast Huron*	3,809	3,813	4	3,813	100.0%
Westario Power*	22,507	22,535	28	22,535	100.0%
Whitby Hydro*	40,720	40,756	36	40,756	100.0%
Woodstock Hydro*	15,295	15,323	28	15,323	100.0%
Total Meter Counts	4,564,749	4,567,708	2,959	4,764,466	95.9%

<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/ As of April	R Enrolment Wave ( 30, 2013	Calendar		_	norr	nally 2	weel		<b>Q</b> QT Q	r - nori	mally	4 we	eks	C C	Cuto	ver - n	iorma	ally 2	wee	ks		
				Π	Т	Τ						Т						Γ				Γ
		Reason for Latest Change Reason Code:	MN	ИМ	м	MM	м	м	M	м	м	м	мм	м	м	мм	м	м	м	м	М	м
		1: IESO Change																1				
		2: LDC Plan change						F	2		5				_		_				_	
		3: LDC Not Ready 4: LDC Wave Failure	uary h				ust	September	September September	September	September	ber	per de	ber	November	November	Novembe	December	December	December	December	December
		5: Update pending	February	April	May	July	August	Sep	Sep	Sept	Sep	October	October	October	Nov	Nov.	Nove	Dece	Dece	Dec		
								2	9 16	6 23	30	7	14 21	28	4	11 18	3 25	2	9	16	23	30
		1																				
RPP Eligible	LDC Name																					
Customers 34,403	ENWIN Powerlines Ltd.			П	T		1	S	S S	Q	Q	Q	QQ			c c	С		1	T	1	T
	ct plan submitted I indication of major milestones																					
	plan submitted																					
	nent self-certification accepted																					
White = Produc Orange = Scher	tion LDC duled for amalgamation																					
orange – benet	MDMR Production LDCs																					
1,671	Atikokan Hydro Inc.	-																				
35,599 9,899	Bluewater Power Distribution Corp. Brant County Power Inc	-																				
38,063	Brantford Power Inc.	1																				
54,959 52,022	Burlington Hydro Inc. Cambridge & North Dumfries Hydro Inc.	-																				
52,022	Centre Wellington Hydro Ltd.																					
1,276 27,533	Chapleau Public Utilities Corp.	-																				
9,075	CNP - Fort Erie CNP - Port Colborne Hydro Inc	]																				
3,522	CNP - EOP																					
L6,097 L,949	Collus Power Corp Cooperative Hydro Embrun Inc.	-																				
10,942	E.L.K. Energy Inc.	-																				
194,033 10,313	Enersource Hydro Mississauga Inc. Entegrus	-																				
18,133	Erie Thames Powerlines Corp.																					
3,313 28,310	Espanola Regional Hydro Distribution Corp. Essex Power Lines Corp.	-																				
.9,850	Festival Hydro Inc.																					
3,739	Fort Frances Power Corp.	-																				
17,171 10,414	Greater Sudbury Hydro Inc. Grimsby Power Inc.	-																				
50,745	Guelph Hydro Electric Systems Inc.	-																				
21,151 21,053	Haldimand County Hydro Halton Hills	-																				
2,709	Hearst Power Distribution Company Ltd																					
234,749 L,207	Horizon Utilities Corporation Hydro 2000 Inc.	-																				
5,537	Hydro Hawkesbury Inc.																					
1,208,801 140,693	Hydro One Hydro One Brampton Networks Inc.	-																				
307,783	Hydro Ottawa Limited																					
15,108 5,575	Innisfil Hydro Distribution Systems Ltd. Kenora Hydro Electric Corp Ltd	-																				
27,209	Kingston Hydro Corporation																					
38,575 9,876	Kitchener-Wilmot Hydro Inc. Lakefront Utilities Inc.	-																				
9,719	Lakeland Power Distribution Ltd.																					
148,472 5,894	London Hydro Midland Power Utility Corp	-																				
31,676	Milton Hydro	1																				
33,770 19,954	Newmarket Hydro Ltd./Tay Hydro Niagara Peninsula Energy Inc.	-																				
3,128	Niagara-on-the-Lake Hydro Inc.	1																				
.9,195 23,694	Norfolk Power Distribution Inc. North Bay Hydro Distribution Ltd	-																				
5,094 5,991	Northern Ontario Wires Inc.																					
i3,449	Oakville Hydro Electricity Distribution Inc. Orangeville Hydro Ltd.	-																				
1,355 3,099	Orangeville Hydro Ltd. Orillia Power Distribution Corp.																					
i3,203	Oshawa PUC Networks Inc.	-																				
.0,549 8,389	Ottawa River Power Corp. Parry Sound Power Corp.	-																				
5,367	Peterborough Distribution Inc.	-																				
26,345	PowerStream Inc PUC Distribution Inc.	-																				
,183	Renfrew Hydro Inc.																					
,801 ,737	Rideau St. Lawrence Distribution Inc. Sioux Lookout Hydro	-																				
6,569	St. Thomas Energy Inc.																					
9,850 ,683	Thunder Bay Electricity Distribution Inc. Tillsonburg Hydro Inc.	-																				
,683 15,331	Toronto Hydro Electric Services Ltd.	]																				
15,290	Veridian Connections	1																				
2,542 3,716	Wasaga Distribution Inc. Waterloo North Hydro Inc.	-																				
2,212	Welland Hydro-Electric System Corp.																					
3,644 3,813	Wellington North Power Inc.	-																				
22,535	West Coast Huron Energy Inc. Westario Power Inc.																					
40,756	Whitby Hydro Energy Services Corp.	-																				
5,323 4,764,466	Woodstock Hydro Services Inc. Production total customer count	-																				
4,848,869	All LDC total customer count	J																				