

**EXTERNAL**

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**REPORT**

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**Smart Metering Entity (SME)  
Time-of-Use Mandate Progress Report  
Through September 30, 2010**

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**Issue 2.0 - October 20, 2010**

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# 1. Introduction

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## 1.1 Purpose

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

- The Smart Metering Entity (SME) and the Meter Data Management and Repository (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) and distributor readiness and MDM/R enrolment progress (in Section 3). 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 Actual Enrolled Meter Counts by Distributor
- Distributor Testing Activities with the MDM/R (Three Month Outlook)
- MDM/R Enrolment Wave Calendar (2010 – 2011)

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.

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

- The MDM/R Enrolment Wave Calendar contains detailed schedules for the planned enrolment testing and cutover to production that each LDC has provided to the SME. The Wave Calendar includes updates received from LDCs verbally and through project plan submissions. If an LDC's self-certification for enrolment testing has been accepted by the SME, this is also indicated on the MDM/R Enrolment Wave Calendar. Verbally provided milestone information, while shown in the calendar, is not included in any of the other tables. The information in this table 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**

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

The Smart Metering Entity (SME) is currently providing appropriate or adequate support to distributor enrolment and the implementation of TOU billing under the Board's TOU mandate.

The SME continues to experience stable operation in the MDM/R production environment under Release 6.3 (R6.3) of the EnergyIP software solution.

Testing of EnergyIP Release 7.0 (R7.0) is nearing completion and those LDCs in MDM/R production operation are evaluating the production readiness of the release. The software will be upgraded to address the small number of defects identified by the production LDCs as needing to be fixed prior to the completion of LDC regression testing and promoting R7.0 to the production MDM/R.

The results of ongoing testing of the software, will factor into the final deployment schedule and plan. Release 7.0 is currently targeted for deployment into the MDM/R production environment in mid November.

### **2.2 Processing Performance**

The MDM/R continues to process meter read data at a sufficient rate to support the current volume of smart meters reporting daily data to production. In September, 100% of meter read data were processed according to contracted service levels. By the end of September, the MDM/R was processing daily meter read data from over 1.13M meters.

In September, contracted service levels were exceeded with respect to the processing of meter master data synchronizations, including enrolment of new smart meters into the MDM/R. Synchronization files that are submitted to enrol large numbers of new smart meters in production (typically greater than 15,000) continue to be scheduled in advance with the SME for coordination purposes. This is a situation related to 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 IESO continues to make resources available to LDCs in support of their time of use implementation plans. The IESO added additional resources in September to support LDCs enrolling with the MDM/R and in production operation.

Many of the distributor's planned activities have moved from Q4 2010 to Q1 and Q2 2011, and the enrolment plans have been subject to changes. As a result, the IESO anticipates that more distributors will request to start enrolment testing at the same time than originally planned. To ensure that the SME can do the best possible job of supporting distributors through the enrolment testing process, it is requested that distributors provide timely updates to their plans and schedules, so that the SME can adjust the overall enrolment testing schedules, accordingly.

## 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. Technical workshops, business process workshops and, to a lesser extent, project planning workshops are all scheduled in the coming months. Please refer to the SME website (<http://www.smi-ieso.ca/training>) for more details on training and the training calendar for the remainder of the year.

## 2.5 Additional Issues

The Cumulative Register Read Working Group (CRRWG) and its Development Sub-Committee (DSC) continued to work through the design of the MDM/R portion of the solution to the issues raised by Measurement Canada. These issues require the cumulative register reads to be on all time-of-use bills and the total energy consumption reported on the bill must equal the difference between the cumulative register reads at the beginning and end of the billing period.

After extensive consultations involving the Ministry of Energy, LDCs, the OEB, the EDA and Measurement Canada, on September 15, 2010 the LDC members of the CRRWG agreed that the MDM/R Universal Solution conforms to Measurement Canada's requirements and is technically viable. On September 21, 2010 Measurement Canada provided a verbal indication to the members of the CRRWG that the proposed solution was satisfactory for addressing their concerns and indicated they would respond to an IESO request for written confirmation.

With Measurement Canada's concurrence that the proposed solution satisfies their requirements, the implementation of the design will move forward. The SME is targeting providing a preliminary schedule on the implementation details for the complete MDM/R portion of the solution by the end of November. The distributors will need to develop their own plans and schedules for implementing their part of the solution.

A workshop to introduce the new MDM/R interface that will be implemented to support the Measurement Canada requirements is scheduled for October 5, 2010. This session will focus on providing LDCs, their agents and software vendors, sufficient information to begin developing their side of the interface. Over 100 people have signed up for the session.

There are no additional issues to report with respect to the SME and the MDM/R readiness for this month.

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

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### 3.1 September Highlights

Hydro One Brampton successfully completed enrolment testing and cutover to the production MDM/R environment on September 10<sup>th</sup>. They have since begun ramping up their meters enrolled in the MDM/R.

Distributors in formal enrolment testing in September include Waterloo North and Tillsonburg.

### 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 % 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 September 30, 2010	MDM/R Cutover Targets		
	Production LDCs	RPP Eligible Customers	Enrolled in MDMR
<b>Actuals - Based on Production LDCs data</b>			
Pre-Q2 2010	9	2,919,550	1,708,746
Q3 2010			
July 2010	1	20,597	8,808
August 2010	0	0	0
September 2010	1	131,409	212
<b>Actual Totals for LDCs in Production</b>	<b>11</b>	<b>3,071,556</b>	<b>1,717,766</b>
<b>Projected - Based on enrolment plans submitted to the SME</b>			
Q4 2010	6	130,482	
Q1 2011	16	615,817	
Q2 2011	11	275,129	
Q3 2011	4	127,779	
Q4 2011	0	0	
2012	0	0	
<b>Projected Totals for Committed LDCs</b>	<b>37</b>	<b>1,149,207</b>	
<b>Totals (Actual and Projected)</b>	<b>48</b>	<b>4,220,763</b>	<b>1,717,766</b>
<b>Not Committed - LDCs have not provided enrolment plans</b>			
Schedules not yet determined	28	462,437	
<b>Totals including non-committed LDCs</b>	<b>76</b>	<b>4,683,200</b>	<b>1,717,766</b>
<b>% Complete of total RPP Eligible Customers Enrolled in the MDM/R</b>		<b>36.7%</b>	
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 Monthly 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 percentage of the *Total RPP Eligible Customers* are currently enrolled in MDM/R production, as of the end of the reporting period.

As of September 30, 2010	MDM/R Enrolled Meter Counts by Distributor				
Distributor	Total Meters Enrolled through 31-Aug	Total Meters Enrolled through 30-Sep	Increased Meter Enrolment this Month	Total RPP Eligible Customers	% Complete for Production LDCs
Chatham-Kent	2,301	7,104	4,803	26,759	26.5%
Halton Hills	6,679	8,808	2,129	20,597	42.8%
Horizon Utilities	99,715	152,108	52,393	231,590	65.7%
Hydro One	546,169	579,444	33,275	1,189,843	48.7%
Hydro One Brampton	N/A	212	212	131,409	0.2%
Hydro Ottawa	24,992	35,000	10,008	295,848	11.8%
Milton Hydro	26,719	27,040	321	27,040	100.0%
NewmarketTay	29,672	29,672	0	31,953	92.9%
PowerStream	192,002	225,405	33,403	316,208	71.3%
Toronto Hydro	523,143	581,162	58,019	689,283	84.3%
Veridian	64,925	71,811	6,886	111,026	64.7%
<b>Total Meter Counts</b>	<b>1,516,317</b>	<b>1,717,766</b>	<b>201,449</b>	<b>3,071,556</b>	<b>55.9%</b>

### 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. Note that Enrolment Testing (SIT and QT) and Cutover to MDM/R production operations may be postponed and rescheduled for some LDCs if the number of LDCs being concurrently tested exceeds the support capacity of the SME (i.e. enrolment of up to six LDCs per month).

As of September 30, 2010	<i>Distributor Testing Activities with the MDM/R (Three Month Outlook)</i>		
	Oct-10	Nov-10	Dec-10
<b>In Unit Testing</b>	Bluewater Chapleau COLLUS Power Enersource Erie Thames Espanola Guelph Hydro Haldimand County Hearst Power Innisfil Hydro Kingston Hydro Kitchener-Wilmot Lakefront Utilities Lakeland Power London Hydro Midland Power Niagara-on-the-Lake Northern Ontario Wires Oakville Hydro Orillia Power PUC Distribution Sioux Lookout West Coast Huron Woodstock Hydro	Bluewater COLLUS Power Enersource Erie Thames Guelph Hydro Haldimand County Hearst Power Innisfil Hydro Kingston Hydro Kitchener-Wilmot Lakefront Utilities London Hydro Midland Power Niagara-on-the-Lake Northern Ontario Wires Orillia Power West Coast Huron Woodstock Hydro	Bluewater Erie Thames Guelph Hydro Haldimand County Innisfil Hydro Kingston Hydro Kitchener-Wilmot Lakefront Utilities London Hydro Midland Power Niagara-on-the-Lake Orillia Power West Coast Huron Whitby Hydro

As of September 30, 2010	<i>Distributor Testing Activities with the MDM/R (Three Month Outlook)</i>		
	Oct-10	Nov-10	Dec-10
In Enrolment Testing - SIT	Espanola Essex Power Lakeland Power PUC Distribution	COLLUS Power Enersource Hearst Power Northern Ontario Wires Oakville Hydro Sioux Lookout Woodstock Hydro	Niagara-on-the-Lake Northern Ontario Wires Orillia Power
In Enrolment Testing - QT	Espanola Essex Power PUC Distribution Tillsonburg Waterloo North	Enersource Espanola Essex Power Hearst Power Lakeland Power PUC Distribution Woodstock Hydro	Enersource Hearst Power Oakville Hydro Woodstock Hydro
Cutover	Tillsonburg	Espanola Essex Power PUC Distribution Waterloo North	Espanola Essex Power Lakeland Power PUC Distribution

### **3.5 MDM/R Enrolment Wave Calendar (2010 – 2011)**

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.

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.



