

**EXTERNAL**



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**Smart Metering Entity (SME)**

**MDM/R Report**

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**3<sup>rd</sup> Quarter 2016**

**July to September**

**Issue 13.0 - October 31, 2016**

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**REPORT**

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# 1. Introduction

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## 1.1 Purpose and Contents

The purpose of this report is to provide a quarterly update to the Ontario Energy Board on the ongoing operations of the Meter Data Management and Repository (MDM/R).

More information about the provincial Smart Metering Initiative and the MDM/R is available on the IESO/SME website (<http://www.smi-ieso.ca/>), the Ontario Energy Board website ([www.ontarioenergyboard.ca/OEB/Industry](http://www.ontarioenergyboard.ca/OEB/Industry)), and the Ministry of Energy website (<http://www.mei.gov.on.ca/>).

Each section of this report provides updates as required by the Ontario Energy Board in connection with MDM/R operations and performance, service level attainment, initiatives and software testing, as well as risks and issues.

This report includes the following updates:

- MDM/R Operation and Processing Performance
- MDM/R Service Levels
- Key SME Activities
- Additional Risks and Issues, and
- Opportunities and Next Steps

## 2. MDM/R Operation and Processing Performance

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### 2.1 MDM/R Performance

The MDM/R production environment remains stable and reliable, processing reads from over 4 million meters for 67<sup>1</sup> LDCs on a daily basis. The SME continues to respond to and address LDC support, service requests and issues in a timely manner.



**67<sup>1</sup>**  
**LDCs**



**4,161,415**  
**Smart Meters**

In the third quarter of 2016, the MDM/R was operationally stable **exceeding** service levels for 100% of meter reads, 100% of billing quantity requests, and 100% of master data updates.

### 2.2 LDC Performance

Monthly Performance Metrics reports and daily summarized operational data continue to be produced for each LDC through the MDM/R Service Desk tool. The SME encourages feedback and development suggestions from LDCs to provide more operational value and support for LDC business operations. In Q3 the SME made minor enhancements to the MDM/R Service Desk tool homepage to provide a more user-friendly experience. A new “OEB Order Implementation” metric is also being developed for each LDC to show enrolment progress of the additional data elements as part of the SME Licence Order. This new reporting metric is expected to be deployed by the end of October.

The quality of LDC meter data and billing responses increased late in the third quarter with the most significant change being a drop in intervals estimated. Lower estimation of LDC meter data improves billing accuracy for residential customers. Estimation in the MDM/R has improved and trended downward since Q1 2016. The SME continually monitors the MDM/R and works with LDCs to improve the quality of their data submissions.

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<sup>1</sup> This number has been updated to reflect the merge of Haldimand Hydro and Woodstock Hydro into Hydro One.

## 2.3 Key SME Activities

### SME Steering Committee

An SME Steering Committee meeting was held on September 20<sup>th</sup>, 2016. LDCs are given the opportunity to provide feedback and suggestions to the SME during pre-scheduled SME Steering Committee meeting open calls. LDCs can also communicate feedback and suggestions through email. The next meeting and call is scheduled for November 22<sup>nd</sup>, 2016.

### LDC Training

On August 10<sup>th</sup> and 11<sup>th</sup>, 2016 Basic and Advanced MDM/R GUI training was delivered on-site. The SME is working to update our GUI training courses to reflect the new GUI design with the upgrade to Energy IP 7.7.

### IESO LDC Event

On September 9<sup>th</sup>, 2016 the SME held an event for LDCs at the International Centre in Mississauga. This event hosted over 50 people with 22 LDCs represented. The event provided updates on current SME projects and activities, as well as future initiatives and opportunities for the MDM/R, Data Mart, and third party access.

### LDC Mergers

The SME successfully merged Hydro One with Haldimand County Hydro Inc. and Woodstock Hydro Services Inc. The mergers were completed within the MDM/R system on consecutive weekends - August 20<sup>th</sup> and August 27<sup>th</sup> 2016.

### MDM/R Data Mart Project

The SME has architected and developed the MDM/R Data Mart to improve the resiliency of the MDM/R and to address the growing volumes of Web Services Requests. At this point, the Data Mart will have no restrictions to the amount of data requested and will be available for 24/7 access.

A round of testing was completed in July. Based on feedback provided through testing, and to verify the integrity of the Data Mart, the SME contracted a third party to perform penetration testing. Results of this testing are expected to be delivered in early Q4 2016. LDCs are expected to begin a final testing phase in early October with a voluntary phased in transition to the new Data Mart Web Services Facility sometime in Q4, 2016. The transition is expected to be non-disruptive from an application perspective. The SME will communicate a detailed transition plan to all LDCs, including preparation for the connectivity of the remaining LDCs, in Q4 2016.

Once transitioned to this new Web Services Facility LDCs and their agents will be able to access and retrieve large amounts of data very efficiently. This facility has also been designed to support new and evolving value-added data services.

### SME Licence Order Working Group

The SME Licence Order Working Group has had several meetings to date, and a web page has been established for the posting of meeting materials:

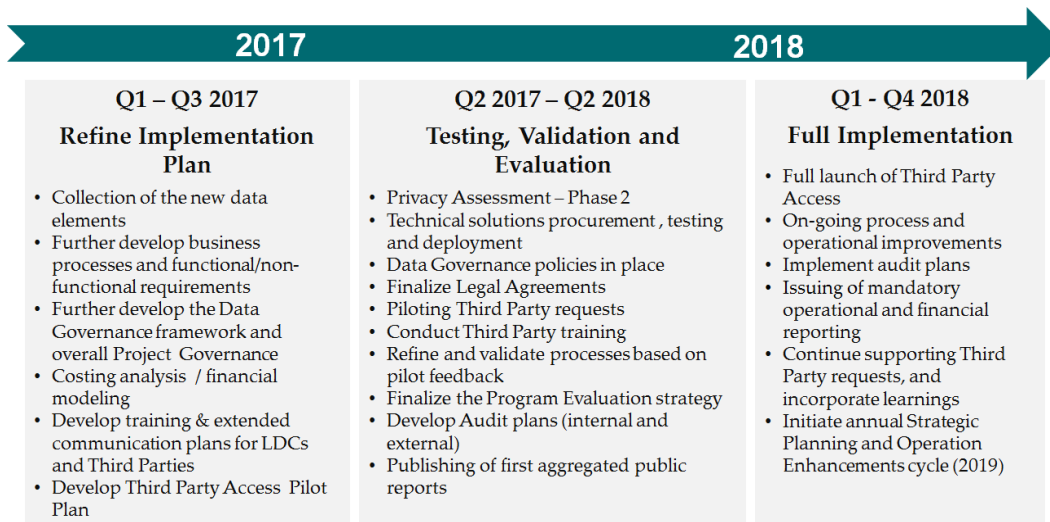
<http://www.ieso.ca/Pages/Participate/Stakeholder-Engagement/Working-Groups/Smart-Metering-Entity-SME-Licence-Order-Working-Group.aspx>

Communications Channel	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17
Working Group Meetings	✓	✓	✓	✓	✓	cancelled	Sept 8	Oct 6	Nov 8	Dec 15	Jan 19
IESO Stakeholder Engagement Website		✓	✓	✓	✓	✓	✓				
IESO Stakeholder Advisory Committee			✓			✓					
IESO Webinars			✓	✓	✓						
IESO LDC Event							Sept 9				
EDA Website / eBlast		✓	✓	✓	✓	✓	✓				
EDA LDC Surveys		✓				✓					
SSC Meetings and LDC Open Calls	✓			✓			✓				
MDM/R Technical Panel Meetings					✓						
GO LIVE Communication											

In August, the SME deployed the code changes required to collect the additional data elements in the MDM/R Sandbox environment for LDC testing. With positive testing feedback provided by LDCs the code was promoted to the MDM/R Production environment on October 1, 2016. Several LDCs plan to begin sending the new data elements in October, while a majority of LDCs are expected to start sending this data in November.

Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17
Early meetings with various groups	Working Group Formed and Kick off Meeting	Ongoing Working Group Meetings									
Privacy vendor selection and contract negotiations	Conceptual Re-Identification Risk Determination Analysis Report received June 2016		Development of 3 <sup>rd</sup> Party Access Framework				SME License Application	LDC Support		Go Live	
Technical Scoping & Requirements		Development and SME internal testing of the new MDM/R code			New MDM/R code deployed to MDM/R Sandbox environment LDCs' testing		New MDM/R code deployed to MDM/R Production environment with Validation for new SDP Parameters excluding Postal Code				

The SME developed an implementation plan for Third Party Access with costing implications, as required in the OEB order. This document was submitted along with the SME's Licence Renewal application on September 30<sup>th</sup>, 2016. The privacy consultant will continue to be engaged throughout this phase as will the IPC who will continue to provide advice and guidance to ensure that privacy requirements are being met.



### 3. MDM/R Service Levels

The Service Level Performance Chart presents two summary levels:

I. Critical Service Level Summary,

The Critical Service Level Summary section includes processing metrics for Automatic Meter Read Processing, Billing Quantity Response Processing, Automatic MMD Incremental Synchronization Processing, MDM/R Graphical User Interface, Meter Read Retrieval Web Services, Reporting, Vendor Service Desk Incident Response, and Vendor Service Desk Service Requests.

II. Non-Critical Service Level Summary

The Non-Critical Service Level Summary section includes processing metrics for Meter Read Retrieval Web Services, MDM/R Availability, and Service Requests. The table also includes a Service Level breakdown for each month along with a quarterly summary<sup>2</sup>.

Critical Service Level Summary		Jul-2016	Aug-2016	Sep-2016	3rd Quarter
Automatic Meter Read Processing	Intervals Loaded	3,204,546,364	3,211,018,163	3,113,789,048	9,529,353,575
	Intervals Loaded on Time	3,204,546,364	3,211,018,163	3,113,789,048	9,529,353,575
	% Intervals Loaded on Time	100.00%	100.00%	100.00%	100.00%
	Number of incidents resulting in accumulated delay >240 minutes <sup>2</sup>	0	0	0	0
Automatic Billing Quantity Processing	BQ Requests	3,779,090	5,311,892	3,882,670	12,973,652
	BQ Requests Fulfilled on Time	3,779,090	5,311,892	3,882,670	12,973,652
	% Requests Fulfilled on Time	100.00%	100.00%	100.00%	100.00%
	Number of incidents resulting in accumulated delay >240 minutes <sup>2</sup>	0	0	0	0
Automatic MMD Incremental Synchronization Processing	Data Elements Requested	1,480,313	4,426,265	1,908,396	7,814,974
	Data Elements Loaded on Time	1,480,313	4,426,265	1,908,396	7,814,974
	% Data Elements Loaded on Time	100.00%	100.00%	100.00%	100.00%
	Number of incidents resulting in Data Elements loaded outside of agreed Service Level target <sup>2</sup>	0	0	0	0
MDM/R Graphical User Interface	Availability	99.99%	99.98%	99.99%	99.99%
	Number of incidents resulting in MDM/R Graphical User Interface availability outside of agreed Service Level target <sup>2</sup>	0	0	0	0
Meter Read Retrieval Web Services	Availability	99.99%	100.00%	100.00%	100.00%
	Number of incidents resulting in Meter Read Retrieval Web Services availability outside of agreed Service Level target	0	0	0	0
Reporting	Percentage completed on time	100.00%	100.00%	100.00%	100.00%
	Number of incidents resulting in Reporting percentage completion outside of agreed Service Level target	0	0	0	0
Vendor Service Desk Incident Response	Response Time	100.00%	100.00%	100.00%	100.00%
	Number of incidents resulting in Vendor Service Desk Incident Response Time outside of agreed Service Level target	0	0	0	0
Vendor Service Desk Service Requests	Resolution Time	100.00%	100.00%	100.00%	100.00%
	Number of incidents resulting in Vendor Service Desk Request resolution time outside of agreed Service Level target	0	0	0	0

<sup>2</sup> Percentages are rounded to the second decimal place for each metric.

Non-Critical Service Level Summary		Jul-2016	Aug-2016	Sep-2016	3rd Quarter
Meter Read Retrieval Web Services	Response Time	99.90%	99.94%	99.94%	99.93%
	Number of incidents resulting in Meter Read Retrieval Web Services response time outside of agreed Service Level target	0	0	0	0
MDM/R Availability	Availability	100.00%	100.00%	100.00%	100.00%
	Number of incidents resulting in MDM/R Availability outside of agreed Service Level target	0	0	0	0
Service Requests	Resolution Time	100.00%	100.00%	100.00%	100.00%
	Number of incidents resulting in Service Requests resolution time outside of agreed Service Level target	0	0	0	0

## 4. Additional Risks and Issues

There are no additional risks or issues to report.

## 5. Opportunities and Next Steps

### Key Technology Upgrades

The SME will be upgrading the MDM/R to eMeter's EnergyIP software version 7.7 to maintain software support and to ensure MDM/R operational stability. This upgrade is expected to have minimal impact to the LDC community. A project plan has been developed, and testing is now underway. This new version is expected to be tested and deployed in the MDM/R Production environment by the end of Q1 2017. The SME is continuing to investigate options for the next MDM/R software upgrade once the deployment of 7.7 is complete.

### Net Metering

The Net Metering/Self-Consumption Advisory Working Group was established in July 2015, and the SME is actively participating in order to provide feedback. In Q3, the SME submitted a high level cost benefit analysis to the Ministry of Energy for review. This document included assumptions for using the MDM/R to collect Net Metering data for the province.

Based on conversations with the Ministry, this project is expected to ramp up in 2017 with program completion currently targeted for 2018.

### EV Overnight Charging

The SME has been in discussions with the Ministry about ways where the MDM/R may facilitate the processes around the EV overnight charging as outlined in the Climate Change Action Plan.