

EXTERNAL



**Smart Metering Entity (SME)
MDM/R Report
2nd Quarter 2017**

April to June

Issue 16.0 - July 31, 2017

REPORT

Table of Contents

1. Introduction.....	2
1.1 Purpose and Contents	2
2. MDM/R Operation and Processing Performance	3
2.1 MDM/R Performance	3
2.2 LDC Performance	3
2.3 MDM/R Service Levels	3
2.4 2 nd Quarter Key SME Activities	5
3. LDC Compliance with OEB Order EB 2015-0297	7
4. Additional Risks and Issues	9
5. Other Opportunities and Next Steps.....	9

1. Introduction

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.ieso.ca/sector-participants/smart-metering-entity>), the Ontario Energy Board website (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 Performance
- LDC Performance
- MDM/R Service Levels
- Second Quarter Key SME Activities
- LDC Compliance with OEB Order EB 2015-0297
- Additional Risks and Issues, and
- Other Opportunities and Next Steps

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. It also includes LDC compliance with the OEB Order EB 2015-0297 as requested by the OEB.

2. MDM/R Operation and Processing Performance

2.1 MDM/R Performance

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



67
LDCs



4,184,256
Smart Meters

In the second quarter of 2017, the MDM/R was operationally stable by **exceeding** service levels for 99.99% of meter reads, 100% of billing quantity requests, and 100% of master data updates.

2.2 LDC Performance

The SME continues to produce monthly performance metrics reports and daily summarized operational data for each LDC through the MDM/R Service Desk tool. In the second quarter the MDM/R Service Desk tool was updated to provide an enhanced user interface and advanced features allowing LDCs to monitor and correct missing data and manage meter activities. Feedback and development suggestions from LDCs are encouraged by the SME to provide more operational value and support for LDC business operations.

LDC meter data submissions improved during the second quarter with the amount of estimation dropping to less than 1%. Reduction of estimated data directly correlates to increased billing accuracy. The SME continues to monitor the MDM/R and work with the LDC community to improve the quality of their data submissions.

2.3 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 summary¹.

Critical Service Level Summary		Apr-2017	May-2017	Jun-2017	2nd Quarter
Automatic Meter Read Processing	Intervals Loaded	3,119,628,807	3,218,298,808	3,118,097,089	9,456,024,704
	Intervals Loaded on Time	3,118,910,781	3,218,298,808	3,118,097,089	9,455,306,678
	% Intervals Loaded on Time	99.98%	100.00%	100.00%	99.99%
	Number of incidents resulting in accumulated delay >240 minutes ²	1	0	0	1
Automatic Billing Quantity Processing	BQ Requests	4,069,088	6,955,969	4,563,792	15,588,849
	BQ Requests Fulfilled on Time	4,069,088	6,955,969	4,563,792	15,588,849
	% Requests Fulfilled on Time	100.00%	100.00%	100.00%	100.00%
	Number of incidents resulting in accumulated delay >240 minutes ²	0	0	0	0
Automatic MMD Incremental Synchronization Processing	Data Elements Requested	1,281,261	2,612,233	1,927,036	5,820,530
	Data Elements Loaded on Time	1,281,261	2,612,233	1,927,036	5,820,530
	% 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 ²	0	0	0	0
MDM/R Graphical User Interface	Availability	100.00%	100.00%	100.00%	100.00%
	Number of incidents resulting in MDM/R Graphical User Interface availability outside of agreed Service Level target ²	0	0	0	0
Meter Read Retrieval Web Services	Availability	99.99%	100.00%	99.99%	99.99%
	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

Non-Critical Service Level Summary		Apr-2017	May-2017	Jun-2017	2nd Quarter
Meter Read Retrieval Web Services	Response Time	99.98%	99.98%	99.99%	99.99%
	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%	99.82%	99.63%	99.82%
	Number of incidents resulting in MDM/R Availability outside of agreed Service Level target	0	0	1	1
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

¹ Percentages are rounded to the second decimal place for each metric.

2.4 2nd Quarter Key SME Activities

SME Steering Committee

The SME Steering Committee held a meeting on June 20th 2017 which was hosted at the Hydro Ottawa office. During this meeting LDCs were given the opportunity to provide feedback and suggestions to the SME during a pre-scheduled meeting open call. LDCs can also communicate feedback and suggestions through email and online live via the webinar presentation. The next meeting and call is scheduled for September 12th 2017 and it is being hosted at the Entegrus office.

One of the topics discussed with the SSC was the revision of the current MDM/R Terms of Service (ToS) document in light of the Distribution System Code amendment that removed section 5.4.1 below as no longer required and with it the requirement for an LDC/SME Agreement approved by the OEB.

“A distributor shall, upon being requested to do so, enter into an agreement with the Smart Metering Entity or the IESO, in a form approved by the Board, which sets out the respective roles and responsibilities of the distributor and the Smart Metering Entity or the IESO in relation to metering and the information required to be exchanged to allow for the conduct of these respective roles and responsibilities.”

The nature of the revisions to the ToS include preservation of key governance and operating provisions from the former Agreement and updates to items that were no longer current since the inception of the document several years ago. The revised ToS was discussed with the SSC and SME has captured valuable input that will be reflected and finalized in the revised ToS by Q4 2017; at which point, the new document will be shared with the rest of the LDC community.

LDC Training

During the second quarter the SME delivered several webinars to the LDC community to explain the new interface and functionalities expected with the upgrade of the MDM/R Service Desk tool. Basic MDM/R GUI Training was provided on June 28th and Advanced MDM/R GUI training was held June 29th.

MDM/R Service Desk tool upgrade

On May 13th the SME successfully upgraded the MDM/R Service Desk tool to maintain software support and provide an enhanced user interface with added functionality allowing LDCs to monitor and correct missing data and manage meter activities.

MDM/R DataMart

The total number of LDCs enrolled into the MDM/R DataMart has reached 12. LDCs are expected to enroll voluntarily, and transitions are expected to be non-disruptive from an application perspective. Once transitioned, LDCs and their agents can take advantage of the 24/7 access to data and the ability to retrieve large amounts of data efficiently with few restrictions on the amount of data being requested.

This facility continues to support new and evolving value-added data services including the delivery of several custom aggregated reports to assist LDCs with business operations, SME Data Governance analysis and the upcoming Third Party Access pilot projects.

Toronto Hydro MDM/R Enrolment

Toronto Hydro successfully completed file transfer connectivity testing in the MDM/R Sandbox, QA, and Production environments on May 5, 2017. On May 17th, 2017 the SME attended a meeting onsite at Toronto Hydro to review and discuss the SME's formal testing requirements and scenarios required before Toronto Hydro's MDM/R production cutover planned for September 30th, 2017. In the middle of

June, Toronto Hydro registered 900 service locations with the MDM/R to use for testing over the next two months. Toronto Hydro's MDM/R testing began in late June and is progressing well.

Third Party Access Implementation Plan

The IESO's Data Strategy Advisory Council (DSAC) is a committee of representatives within Ontario's electricity sector and other sectors as applicable, appointed by the IESO, to provide input in the review and development of processes for the implementation of Third Party Access to the data within the Province's Meter Data Management/Repository (MDM/R), in a de-identified manner, as per OEB Orders (EB-2015-0297 and EB-2016-0284).

The committee was successfully established, and the first meeting was held on June 15, 2017. Input from the committee was gathered on the development of an implementation plan to provide third party access to de-identified electricity consumption data within the provincial MDM/R and how to engage Ontario's broader stakeholder community in these efforts. The committee discussed engagement, building a roadmap for Third Party Access, and finalized the Terms of Reference. A second meeting was held on June 27th whereby the SME presented a framework for test case selection and analysis including a submission form to be used by DSAC members to formulate their data requests.

The next DSAC meeting is scheduled for Wednesday August 2nd and a broad stakeholder engagement initiative is also planned for Q3/Q4 2017 to ensure broad awareness and a platform for engagement on this key initiative for the province.

Phase 2 of the privacy analysis on the new data collected in the MDM/R has also been initiated to validate the process for additional data collection by the SME, as established through the conceptual Phase 1 of the privacy analysis completed in 2016. The Phase 2 privacy analysis will be completed by Q4 2017 and will be followed by the execution of the test cases selected within DSAC.

The IESO will continue to work closely with the Office of Information and Privacy Commissioner of Ontario (IPC) and the privacy consultant (Privacy Analytics Inc.) to ensure privacy compliance, ethics and fairness as the Third Party Access Implementation Plan gets developed and rolled out.

Further information regarding the Data Strategy Advisory Council and its activities can be found on our website at <http://www.ieso.ca/en/sector-participants/smart-metering-entity/data-strategy-advisory-council>

SME Rate Filing

The SME is currently working to complete and submit a new 5-year budget and a rate filing for a new Smart Meter Charge for the period of January 1st, 2018 to December 31st, 2022. This will be submitted to the OEB by September 2017.

3. LDC Compliance with OEB Order EB 2015-0297

Compliance with OEB Order EB 2015-0297 is very high. At the time of this report, all LDCs have completed the processes for submission of the additional data to the MDM/R with only a small percentage of the additional data fields outstanding.

Overall, the percentage of Service Delivery Points (SDPs) with a Commodity Rate Class is at 99.66%, Distributor Rate Class is at 99.68%, and the number of SDPs with a valid Postal Code is at 99.75%.

The SME continues to work with the LDCs to ensure completeness of the new data fields added into the MDM/R (currently addressing the small number of LDCs with a high percentage of SDPs assigned with the default W8W8W8² postal code). The SME will continue to support LDCs as they approach full compliance status with the OEB Order.

² W8W8W8 denotes a generic postal code classification that includes unassigned postal codes (upcoming new home divisions) and unique dwelling postal codes flagged by LDCs.

LDC NAME	ACTIVE SDP COUNT	% of SDP's with Distributor Rate Class	% of SDP's with Commodity Rate Class	% of SDP's with Valid Postal Code	% of SDP's with Default Postal Code (W8W8W8)	% of SDP's with Occupant Change Recorded
Hydro One	1,178,636	100.00%	100.00%	100.00%	2.12%	5.04%
Powerstream	344,788	99.97%	99.98%	100.00%	0.15%	5.84%
Hydro Ottawa	326,673	100.00%	99.98%	100.00%	0.06%	7.83%
Horizon Utilities Corporation	245,299	95.66%	95.47%	95.94%	3.29%	6.90%
Enersource	202,121	99.97%	99.91%	99.99%	0.27%	5.19%
Brampton Hydro	158,017	100.00%	100.00%	100.00%	1.14%	4.13%
London Hydro	154,714	99.99%	99.99%	99.99%	0.02%	8.41%
Veridian Connections	118,963	99.97%	99.97%	99.97%	0.40%	5.26%
Kitchener-Wilmot Hydro	94,597	100.00%	100.00%	100.00%	0.00%	6.45%
Enwin Utilities	88,622	100.00%	100.00%	100.00%	0.01%	7.51%
Oakville Hydro Electricity Distribution Inc.	69,786	99.97%	99.97%	100.00%	0.16%	7.53%
Burlington Hydro Electric Inc.	65,851	100.00%	100.00%	100.00%	0.50%	5.54%
Energy+ Inc.	64,232	100.00%	100.00%	100.00%	0.00%	6.12%
Oshawa Power and Utilities Corporation	56,926	99.93%	99.93%	99.93%	0.24%	6.95%
Waterloo North Hydro	56,879	98.24%	98.30%	100.00%	0.04%	7.02%
Guelph Hydro Electric Systems Inc.	54,440	100.00%	100.00%	100.00%	0.91%	8.52%
Niagara Peninsula Energy Inc.	53,832	100.00%	100.00%	100.00%	0.01%	6.60%
Thunder Bay Hydro Electricity Distribution	50,521	99.55%	99.51%	99.89%	26.92%	6.29%
Greater Sudbury Hydro Inc.	47,538	100.00%	100.00%	100.00%	0.01%	6.31%
Whitby Hydro Electric Commission	42,078	100.00%	100.00%	100.00%	0.46%	4.30%
Entegrus Power Lines	40,783	100.00%	100.00%	100.00%	0.01%	6.29%
Canadian Niagara Power	40,514	99.97%	99.96%	99.97%	0.34%	4.37%
Brantford Power Inc.	39,176	99.55%	99.56%	99.81%	0.00%	7.39%
Peterborough Utilities	36,589	99.84%	99.29%	99.85%	0.00%	7.25%
Bluewater Power Distribution Corporation	36,285	99.98%	99.98%	100.00%	0.36%	6.48%
Milton Hydro Distribution	35,768	99.89%	99.89%	99.89%	0.13%	7.14%
Newmarket Hydro	35,394	100.00%	100.00%	100.00%	1.88%	4.42%
PUC Distribution	33,774	100.00%	100.00%	100.00%	0.17%	5.56%
Essex Power	29,417	99.89%	99.89%	99.89%	0.07%	4.96%
Utilities Kingston	27,532	100.00%	100.00%	100.00%	0.56%	10.46%
North Bay Hydro	23,720	99.39%	99.04%	99.46%	0.00%	7.25%
Westario Power Inc.	23,088	100.00%	100.00%	100.00%	0.52%	6.48%
Wells Hydro-Electric System Corp.	22,898	100.00%	100.00%	100.00%	0.07%	6.77%
Halton Hills Hydro Inc.	21,912	100.00%	100.00%	100.00%	0.36%	5.04%
Festival Hydro Inc.	20,686	99.95%	99.98%	99.98%	4.10%	7.11%
Erie Thames Powerlines	18,792	99.99%	99.99%	99.99%	1.20%	6.22%
St. Thomas Energy Inc.	17,429	100.00%	100.00%	100.00%	0.02%	7.37%
Collus PowerStream	17,082	100.00%	100.00%	100.00%	0.00%	7.73%
InnPower Corporation	16,653	100.00%	100.00%	100.00%	1.39%	6.51%
Orillia Power Corporation	13,609	100.00%	100.00%	100.00%	0.01%	6.89%
Wasaga Distribution Inc.	13,463	99.99%	99.99%	100.00%	0.00%	4.69%
Lakeland Power Distribution	13,354	100.00%	100.00%	100.00%	0.00%	5.68%
Orangeville Hydro Limited	12,135	100.00%	100.00%	100.00%	0.07%	7.10%
E.L.K Energy Inc.	11,279	96.26%	96.26%	99.95%	0.33%	4.38%
Grimsby Power Inc.	11,178	100.00%	100.00%	100.00%	0.75%	5.49%
Ottawa River Power	10,848	100.00%	100.00%	100.00%	0.16%	8.08%
Lakefront Utilities	10,354	99.95%	99.95%	99.95%	1.22%	6.24%
Niagara-on-the-Lake Hydro	9,350	100.00%	100.00%	100.00%	0.01%	6.12%
Midland Power Utility Corporation	7,165	100.00%	100.00%	100.00%	0.00%	7.16%
Centre Wellington Hydro Ltd.	6,802	100.00%	100.00%	100.00%	0.00%	6.84%
Tillsonburg Hydro Inc.	6,757	99.99%	99.99%	99.99%	0.00%	6.54%
Northern Ontario Wires Inc.	5,974	100.00%	100.00%	100.00%	0.00%	6.13%
Rideau St. Lawrence Distribution	5,829	100.00%	100.00%	100.00%	0.10%	7.51%
Kenora Hydro	5,591	97.96%	98.05%	98.27%	98.19%	5.26%
Hawkesbury Hydro	5,462	100.00%	100.00%	100.00%	0.02%	6.90%
Renfrew Hydro Inc.	4,262	99.98%	99.98%	100.00%	0.05%	7.06%
West Coast Huron Energy Inc.	3,818	100.00%	100.00%	100.00%	0.00%	6.52%
Wellington North Power Inc.	3,739	100.00%	100.00%	100.00%	0.05%	7.11%
Fort Frances Power Corporation	3,730	98.02%	98.53%	98.66%	98.61%	5.12%
Espanola Regional Hydro	3,318	100.00%	100.00%	100.00%	5.24%	5.97%
Sioux Lookout Hydro	2,776	97.69%	98.27%	98.41%	98.27%	8.25%
Hearst Power Distribution Co Ltd	2,665	100.00%	100.00%	100.00%	0.00%	4.92%
Cooperative Hydro Embrun Inc.	2,138	100.00%	100.00%	100.00%	0.05%	8.00%
Atikokan Hydro Inc.	1,652	97.94%	97.94%	100.00%	0.00%	3.39%
Chapleau Public Utilities Corporation	1,255	99.68%	99.68%	100.00%	0.00%	5.74%
Hydro 2000 Inc.	1,228	100.00%	100.00%	99.84%	0.08%	7.00%
ORGTOTAL	4,191,736	99.68%	99.66%	99.75%	1.59%	6.06%

4. Additional Risks and Issues

There are no additional risks or issues to report.

5. Other Opportunities and Next Steps

Net Metering

The SME remains engaged in the Net Metering/Self-Consumption Advisory Working Group by providing input into the project. This project is ramping up and the SME has committed to providing a cost and time estimate by mid-August 2017 for delivery of a Net Metering solution utilizing the MDM/R Production environment.