Smart Metering Entity (SME) MDM/R Report

2nd Quarter 2023
April to June
Issue 40.0 - July 31, 2023

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1. Introduction

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 (https://www.oeb.ca), and the Ministry of Energy website (https://www.ontario.ca/page/ministry-energy).

Each section of this report provides updates as required by the Ontario Energy Board in connection with the 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
- 2nd Quarter Key SME Activities
- Additional Risks and Issues, and
- Other Opportunities and Next Steps

2. MDM/R Operation and Processing Performance

MDM/R Performance

The MDM/R production environment remains stable and reliable, processing reads from over 5.2 million smart meters, for all LDCs in Ontario, on a daily basis. The SME continues to respond to, and address, LDC service requests and support issues in a timely manner.

57 LDCs

5,208,729 Smart Meters

In the second quarter of 2023, the MDM/R was operationally stable and met or exceeded service levels for 99.98% of Meter Reads, 100% of Billing Quantity requests, and 100% of Master Data updates.

LDC Performance

The SME produces monthly performance metrics reports, daily-summarized operational data, and a customized LDC Action Items list for each LDC through the MDM/R Service Desk tool. Over the past quarter there was no notable changes to the quality of LDC master data. The SME continues to work and collaborate with LDCs on improving the quality of data in the MDM/R.

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[1].

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

In the second quarter, the SME met all the critical and non-critical service levels as shown in the tables below:

Critical Service Level Summary		Apr-2023	May-2023	Jun-2023	2nd Quarter
Automatic Meter Read Processing	Intervals Loaded	**3,980,259,668**	**4,117,691,752**	**3,982,461,729**	**12,080,413,149**
	Intervals Loaded on Time	**3,978,171,269**	**4,117,691,752**	**3,981,688,515**	**12,077,551,536**
	% Intervals Loaded on Time	**99.95%**	**100.00%**	**99.98%**	**99.98%**
	Number of incidents resulting in accumulated delay >240 minutes[2]	**0**	**0**	**0**	**0**
Automatic Billing Quantity Processing	BQ Requests	**5,081,628**	**9,477,243**	**5,990,109**	**20,548,980**
	BQ Requests Fulfilled on Time	**5,081,628**	**9,477,243**	**5,990,109**	**20,548,980**
	% 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	**521,847**	**1,074,290**	**1,303,126**	**2,899,263**
	Data Elements Loaded on Time	**521,847**	**1,074,290**	**1,303,126**	**2,899,263**
	% 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%**	**99.99%**	**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	**100.00%**	**99.40%**	**99.99%**	**99.80%**
	Number of incidents resulting in Meter Read Retrieval Web Services availability outside of agreed Service Level target	**0**	**2**	**0**	**2**
Reporting	Percentage completed on time	**100.00%**	**100.00%**	**99.94%**	**99.98%**
	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-2023	May-2023	Jun-2023	2nd Quarter
Meter Read Retrieval Web Services	Response Time	**99.98%**	**99.55%**	**99.90%**	**99.81%**
	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**

3. 2nd Quarter key SME Activities

SME Steering Committee (SSC)

The SSC met in person on April 19th and virtually on June 28th to discuss the following topics:

- OEB Items
  - Ultra Low Overnight TOU Rate Structure
  - Net Metering
- LDC Mergers and CIS Replacements/Upgrades
- MDM/R Data Governance
  - LDC Action Items (count and communication)
- Enhanced Third Party Access Project
- RFP Assessment/Development for the Operational Service Provider and eMeter EnergyIP
- CSAE 3416 Audit
- SME Annual Disaster Recovery Testing
- Net Metering Pilot with Halton Hills Hydro Inc.
- SSC Membership
- Environmental Registry of Ontario proposal (ERO – 019-6521) regarding the Collection, Management and Improved Utilization of Smart Metering Data for Behind-the-Meter Distributed Energy Resources.
- September 28th SME LDC Event

The next SSC meeting is scheduled for September 27, 2023.

Ultra-Low Overnight Rate Structure

On April 16 2023, the SME deployed configuration changes to the MDM/R Production environment to support the New Ultra-Low Overnight (ULO) TOU Electricity Rate which was introduced to consumers on May 1, 2023. A number of LDCs have already started to synchronize ULO consumers with the MDM/R, and at the time of this report, there are now approximately 2,000 SDPs synchronized as Ultra-Low Overnight. The SME continues to support the remaining LDCs who are expected to deliver the new rate structure before the November 1, 2023 deadline.

Net Metering Pilot with Halton Hills Inc.

The SME deployed a basic Net Metering configuration to the MDM/R production environment, for Halton Hills only, on May 1, 2023. The SME has been working with Halton Hills Hydro on testing in the MDM/R QA environment and synchronizing a small number of net metered consumers to the MDM/R production environment which is expected in late July.

MDM/R Net Metering Solution

On January 17 2023, the OEB released a staff bulletin stating that "a distributor must bill net metered RPP consumers on the basis of the customer's choice of pricing plan: tiered or TOU, or, when it becomes available, the new ultra-low overnight option." Subsequently, the SME initiated technical discussions with the LDCs, held multiple MDM/R Technical Panel sessions and additional stakeholder workshops in February to gather requirements for the development of an enduring Net Metering solution. On April 28, 2023 the SME released redline versions of the Technical Interface Specifications (TIS) documentation. The SME is targeting deployment of the Net Metering Solution to the MDM/R Sandbox and QA environments for August 31, 2023 for LDC testing, while deployment to the MDM/R production environment remains targeted for November 1, 2023.

As of July 1, 2023, regulatory amendments to Ontario Regulation 393/07 (Smart Metering Entity), made under the Electricity Act, 1998, came into force to expand and clarify the SME's authority to collect data on the electricity conveyed into the grid from a generation or energy storage system installed behind the customer's meter. This enables the SME to process and manage bi-directional smart metering data through the MDM/R. These changes support a centralized billing solution for distributors to bill RPP customers, including net-metered customers, according to their choice of pricing plan. These regulatory changes also provide the SME with exclusive authority as of January 1, 2025 to allow time for the LDC's integration with the MDM/R.

Smart Metering Analytics & Reporting

The SME's Data and Analytics team continues to provide the OEB with monthly statistics on the uptake of the Tiered and ULO pricing options by LDCs. This quarter saw an increase of Tiered customers by 0.15%, and an initial uptake of the ULO plan of 0.03%.

Third Party Access (TPA) Program

The IESO website has been updated, link here, providing all relevant information on the Third Party Access program and officially enabling the submission of requests for smart meter data to the SME.

Third Party Access - Next Steps

As per OEB Decision and Order EB 2021-0292, the SME is required to undertake an investigation to assess the opportunity for expanding access to SME data and file the results of the investigation not later than April 30, 2025 (as part of the SME Annual Report for 2024). Note that the OEB has indicated it would prefer that the SME complete and file the results of its investigation in May 2024, as part of its 2023 Annual Report. Through its investigation, the SME is required to show whether sufficient opportunity exists to warrant expanding access to SME data to non-government entities, and if not, why not. Over the next months, the SME will be engaging with a number of audiences to assess the opportunity to expand third party access – this would include past intervenors, influencers and others key stakeholders who could inform the SME's assessment, along with relevant jurisdictional research.

SME Operational Updates

Annual Disaster Recovery (DR) Testing

This year's DR test began Monday, June 12, 2023, and ran through to Friday, June 16, 2023. Halton Hills Hydro and GrandBridge Energy volunteered to participate and provide feedback on the exercise. While there was a minor delay experienced when copying data over from the MDM/R production environment to the MDM/R Disaster Recovery environment, the overall the exercise was a success.

Register Read Validation

On June 4, 2023 the SME deployed phase 1 of the Register Read Validation configuration in the MDM/R. The main goal of validating Register Read values is to ensure that the MDM/R does not use questionable Register Readings to support MDM/R processes such as Message Sum Check, scaling of estimated intervals during meter data processing, or billing estimation. At the time of this report, the SME has already seen a reduction in the amount of high estimated consumption in the MDM/R.

4. Additional Risks and Issues

There are no additional risks or issues at this time.

5. Other Opportunities and Next Steps

There are no other opportunities at this time.

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