Smart Metering Entity (SME) MDM/R Report

4th Quarter 2022
October to December
Issue 38.0 - January 31, 2023

Table of Contents

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
- 4th 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 5.1 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

5,166,399 Smart Meters

In the fourth quarter of 2022, the MDM/R was operationally stable and met or exceeded service levels for 99.81% 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 were no notable changes to LDC performance. that being said, the SME has been actively engaging with several LDCs to clean up data quality issues. These interactions are paying off as the number of data quality issues are declining. The SME will continue 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 fourth quarter, the SME met all the critical and non-critical service levels as shown in the tables below:

Critical Service Level Summary		Oct-2022	Nov-2022	Dec-2022	4th Quarter
Automatic Meter Read Processing	Intervals Loaded	3,980,260,953	3,879,057,205	3,995,954,523	11,855,272,681
	Intervals Loaded on Time	3,975,570,045	3,878,675,467	3,977,919,802	11,832,165,314
	% Intervals Loaded on Time	99.88%	99.99%	99.55%	99.81%
	Number of incidents resulting in accumulated delay >240 minutes[2]	0	0	1	1
Automatic Billing Quantity Processing	BQ Requests	5,413,888	9,022,887	5,560,281	19,997,056
	BQ Requests Fulfilled on Time	5,413,888	9,022,887	5,560,271	19,997,046
	% 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	895,548	1,000,692	1,380,323	3,276,563
	Data Elements Loaded on Time	895,548	1,000,692	1,380,323	3,276,563
	% 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%	99.90%	99.97%
	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%	99.99%	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%	99.51%	99.84%
	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		Oct-2022	Nov-2022	Dec-2022	4th Quarter
Meter Read Retrieval Web Services	Response Time	99.83%	99.95%	99.94%	99.91%
	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%	99.93%	99.98%
	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. 4th Quarter key SME Activities

SME Steering Committee (SSC)

The SSC met virtually on November 30th to discuss the following topics:

- OEB Items
    - Ultra Low Overnight TOU Rate Structure
- LDC Mergers and CIS Replacements/Upgrades
- MDM/R Data Governance
    - LDC Action Items (count and communication)
- Third Party Access
- CSAE3416 Audit
- Net Metering Exploration
- SSC Membership
- 2023 Meetings (Dates/Locations)
- LDC Event Wrap-up
- AMI 2.0. Meter re-certification/reseal strategies
- Green Button Implementation

The next SSC meeting is scheduled for January 25th, 2023.

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.

Next Steps

- The IESO team will soon start working to address the requirement from OEB Decision and Order EB 2021-0292 to explore expanding access beyond Canadian Governmental Entities

Alternate TOU Rate Structure

The OEB consulted with the SME and received confirmation that there are no technical barriers with the MDM/R to implement the changes involved in the New Ultra-Low Overnight (ULO) TOU Electricity Rate which will be introduced to consumers in 2023. To support LDC testing of the new rate structure, the SME posted REDLINE versions of the MDM/R Technical Interface Specifications for Web Services, Billing Standard and Synchronization in the SME Service Desk Knowledge Base and a communication was sent out the to LDCs on August 24th advising of the redline versions being posted. The SME deployed configuration changes for ULO to the MDM/R test environments on November 6th, 2022 for LDC testing. The SME has posted suggested test scenarios for LDCs, and a webinar is expected to be developed and delivered in the first quarter of 2023.

Net Metering

Over the past several months there has been an increase in discussions and interest from sector participants on the topic of Net Metering. In late June 2022, the SME was approached by an LDC asking if the MDM/R was able to support TOU bi-directional metering so they could implement Net Metering billing for their customers. The SME agreed to work with the utility to assess the technical feasibility of the MDM/R to process, store, and produce TOU billing quantities for bi-directional residential and small general service net metered consumers.

Early on in this demonstration project, the SME established that enabling net metering functionality in the MDM/R could be completed with configuration changes only and that no more complex development or code customizations would be required. In October, the configuration changes to support bi-directional net metering were successfully tested. The configuration was then deployed to an MDM/R test environment for the utility to test in mid-January.

The SME will continue to discuss the topic of bi-directional net metering with the SSC and work with the MDM/R Technical Panel accordingly. Other discussions are also underway to determine any regulatory changes that may be required to the SME's mandate in order to offer net metering functionality to all LDCs, should this topic become of a general interest for the province.

2022 CSAE-3416 Audit Update

As per the MDM/R Terms of Service, the SME is required to conduct an annual audit of the MDM/R internal control environment to support the LDCs financial statements. This audit of MDM/R operations is conducted to provide reasonable assurance, to MDM/R service recipients and their auditors, that the IESO's internal controls governing the operation of the MDM/R are suitably designed and operating effectively.

In 2022, the SME received another clean audit which marks the 13th consecutive clean audit received. These external audits examine MDM/R operations, processes and procedures. The audit was conducted according to the Canadian Standard Assurance Engagements for Reporting Controls at a Service set out in the CPA Canada Handbook – Assurance ("CSAE3416").

In its report, which covers the April 1st, 2022 to September 30th, 2022 audit period, PricewaterhouseCooper LLP provided an unqualified opinion on the controls the IESO has put in place relating to the MDM/R System.

MDM/R service recipients are able to request a copy of the final audit report through the SME Service Desk tool.

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 pricing option, by LDC. Trending wise, we see a larger uptake across the

province, with an increase of 0.32% over the quarter. The largest contributors to the difference this quarter can be attributed to Hydro One, Alectra, Toronto Hydro, and Hydro Ottawa.

SME Operational Updates

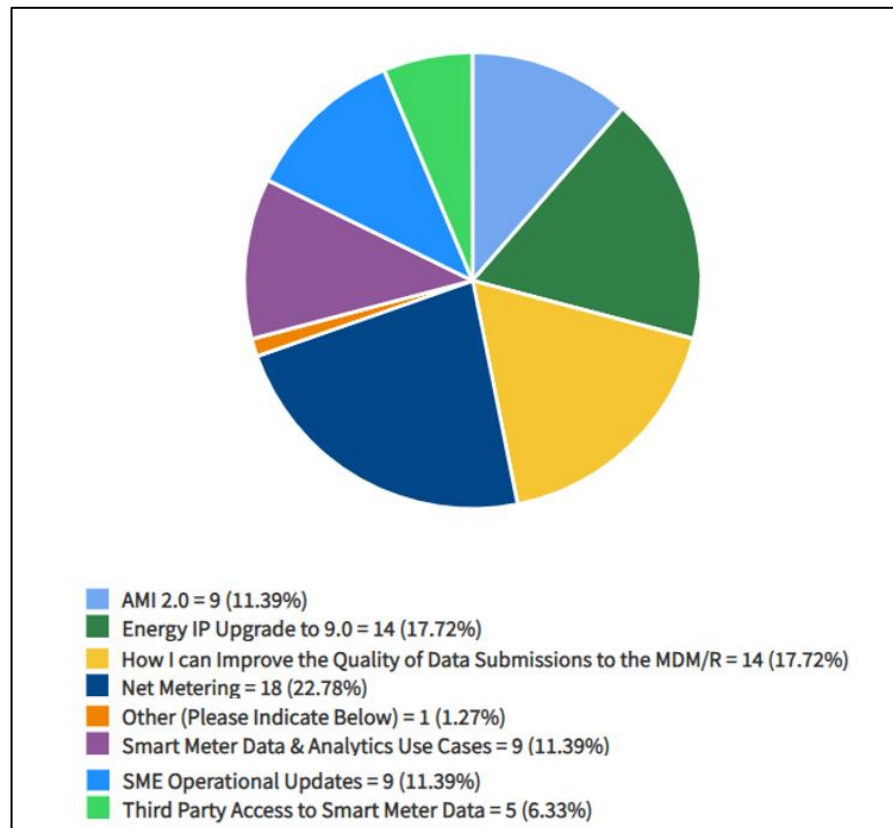## Upgrade of the SME Service Desk tool and Service Desk Interface

On November 7th the SME upgraded the SME Service Desk tool with no impact to LDCs.

On November 28th the SME deployed a new Service Desk Portal. This upgrade was designed to provide a more user-friendly interface for LDCs when interacting with the SME. The new interface can be used on mobile devices and has been well received by the LDC community.

2022 SME LDC Satisfaction Survey

In the fourth quarter, the SME released its annual SME LDC Satisfaction survey. The survey included questions on SME service desk performance, communications, and LDC interests. Individuals from over two dozen LDCs participated, and feedback was very positive.

On a question related to what the LDCs would like to hear more about from the SME, there was a wide range of interest with Net Metering being the most mentioned, followed by Improving LDCs Data Quality and the next MDM/R software upgrade (tentatively scheduled for 2023).

- AMI 2.0 = 9 (11.39%)
- Energy IP Upgrade to 9.0 = 14 (17.72%)
- How I can Improve the Quality of Data Submissions to the MDM/R = 14 (17.72%)
- Net Metering = 18 (22.78%)
- Other (Please Indicate Below) = 1 (1.27%)
- Smart Meter Data & Analytics Use Cases = 9 (11.39%)
- SME Operational Updates = 9 (11.39%)
- Third Party Access to Smart Meter Data = 5 (6.33%)

Decoding Common Billing Issues Using the MDM/R GUI

Each quarter in 2022 the SME delivered a webinar entitled "Decoding Common Billing Issues Using the MDM/R GUI". On December 6th, 2022 the SME concluded its last installment of this four-part webinar series.

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.

Independent Electricity
System Operator
1600-120 Adelaide Street West
Toronto, Ontario M5H 1T1

Phone: 905.403.6900
Toll-free: 1.888.448.7777
E-mail: customer.relations@ieso.ca

ieso.ca

@IESO_Tweets
facebook.com/OntarioIESO
linkedin.com/company/IESO