Smart Metering Entity (SME) MDM/R Report

3rd Quarter 2024
July to September
Issue 45.0 - October 31, 2024

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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
- 3rd 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 5.3 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.

55 LDCs[1]

5,312,980 Smart Meters

In the first quarter of 2024, the MDM/R was operationally stable and met or exceeded service levels for 99.82% 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 a small increase in high usage and data quality issues which translate to lower billing success. The SME made changes to a specific data quality monitoring and reporting process and continues to work with LDCs on improving the quality of the 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[2].

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[1] *The number of LDCs has been updated to reflect the merge between Hydro One Networks Inc. and Chapleau Public Utilities Corporation.*

[2] *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		Jul-2024	Aug-2024	Sep-2024	3rd Quarter
Automatic Meter Read Processing	Intervals Loaded	4,228,165,930	4,237,770,693	4,112,292,355	12,578,228,978
	Intervals Loaded on Time	4,227,597,001	4,226,618,756	4,101,095,234	12,555,310,991
	% Intervals Loaded on Time	99.99%	99.74%	99.73%	99.82%
	Number of incidents resulting in accumulated delay >240 minutes[2]	0	0	0	0
Automatic Billing Quantity Processing	BQ Requests	7,236,155	5,771,840	5,691,392	18,699,387
	BQ Requests Fulfilled on Time	7,236,155	5,771,840	5,691,392	18,699,387
	% 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	1,411,431	1,158,869	1,193,142	3,763,442
	Data Elements Loaded on Time	1,411,431	1,158,869	1,193,142	3,763,442
	% Data Elements Loaded on Time	100.00%	100.00%	99.98%	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	100.00%	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

Non-Critical Service Level Summary		Jul-2024	Aug-2024	Sep-2024	3rd Quarter
Meter Read Retrieval Web Services	Response Time	99.99%	99.89%	99.96%	99.95%
	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. 3rd Quarter key SME Activities
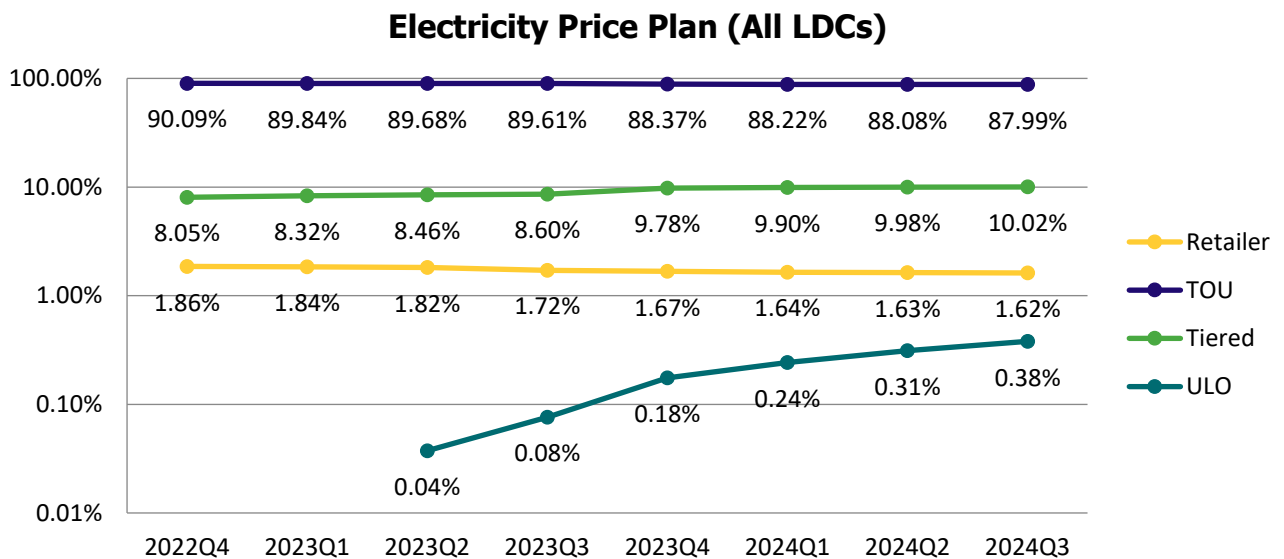
SME Steering Committee (SSC)

The SSC met in person on September 11, 2024 to discuss the following topics:

- LDC Mergers and CIS Replacements/Upgrades
- SME CSAE 3416 Audit
- Assessment of Third Party Access Expansion
- MDM/R infrastructure service provider change
- OEB and Ministry Items
- SSC Meeting locations
- LDC AMI 2.0 procurement and deployment updates
- MDM/R Data Governance

The next SSC meeting is scheduled for November 21, 2024.

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 0.04% to 10.02%, and an overall uptake of the ULO plan by 0.07% to 0.38%[2].

Electricity Price Plan (All LDCs)

	2022Q4	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2	2024Q3
TOU	90.09%	89.84%	89.68%	89.61%	88.37%	88.22%	88.08%	87.99%
Tiered	8.05%	8.32%	8.46%	8.60%	9.78%	9.90%	9.98%	10.02%
Retailer	1.86%	1.84%	1.82%	1.72%	1.67%	1.64%	1.63%	1.62%
ULO			0.04%	0.08%	0.18%	0.24%	0.31%	0.38%

Assessment of Third Party Access Expansion

In Q3 2024, the SME has continued its work on the assessment for expanding Third Party Access to the smart metering data (currently restricted to Canadian Governmental Entities). These activities to date include discussions with intervenors, the LDC community and the Electricity Distributors Association (EDA), stakeholder engagement sessions and consultations with industry experts. The SME plans to submit its assessment to the Ontario Energy Board (OEB) by the end of 2024.

SME Operational Updates

LDC Mergers & CIS Replacements/Upgrades

On September 7, 2024, Hydro One successfully merged with Chapleau Hydro in the MDM/R. The SME is working with Alectra Utilities Corp. on their merge with Guelph Hydro Electric Systems Inc. which is currently scheduled for Q4 2024.

At the end of July, Festival Hydro successfully completed their CIS replacement project. The SME continues to work with London Hydro on their CIS upgrade project.

SME Operations Support for LDC Testing

With the increasing number of LDC projects (e.g. MDM/R net metering integration, CIS Upgrades / replacements, AMI 2.0 deployments), the SME has been actively supporting and coordinating LDC testing activities.

MDM/R Net Metering

The SME's MDM/R province-wide Net Metering solution was deployed to production in November 2023. A limited number of LDCs using a specific CIS technology required a unique bi-directional meter configuration. On August 2, 2024 the SME released redline versions of the MDM/R Synchronization & Billing Technical Interface Specifications, and the solution was deployed to the MDM/R test environment at the end of August. In a first, the SME worked exclusively with NorthStar Utilities Solutions to complete preliminary testing of the CIS integration prior to LDC release. NorthStar was able to complete testing in September and release the update to a majority of their customers in early October.

The SME is targeting deployment of the new solution to the MDM/R production environment in early December 2024.

To support another custom net metering configuration, the SME worked with Toronto Hydro to deploy a new Itron MV90 CRF adapter. This adapter is currently being tested and will be deployed to the MDM/R production environment in the near future.

MDM/R Transition to AWS

Earlier this year, IBM informed the SME that the current data center would be moving to a new location. The SME worked with IBM on a proof of concept to host the MDM/R in the AWS cloud. A cloud solution provides performance, scalability and flexibility as LDCs gradually move to 15-minute intervals over the next 5 years. Detailed Planning and Design have been completed, and the Build of the test environments have commenced. Production cut-over is currently targeted for August 2025.

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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