

Toward Time-of-Use

An IESO Smart Metering Entity Newsletter

June 30, 2010

"Toward Time-of-Use" is a newsletter for Local Distribution Company (LDC) staff and service agents working with the IESO Smart Metering Entity (SME) as well as other industry stakeholders. Click on a news category or headline below to learn more about the Meter Data Management and Repository (MDM/R), what it takes to prepare for time-of-use (TOU), and IESO and LDC TOU rollout activities.

Send an email to the [SME](#) to subscribe to the newsletter, provide feedback or submit general inquiries and story ideas. Visit the Smart Metering System Implementation Program ([SMSIP](#)) website – and its "Getting Started" page – for more information.

SME and LDC News

- Hydro Ottawa successfully transitions to MDM/R production system
- More than 40 LDCs registered with the SME to date

Policy & Governance

- Measurement Canada billing format requirement update
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Ask the Trainer

- When should meter reads be submitted?
 - Do you have a question for the IESO SME trainer? (smartmeteringentity@ieso.ca)
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Industry News

Select from the headlines below to read the latest smart metering and energy management technology news from around the world.

- Americans' awareness of smart grid lagging, survey finds (*Government Technology*, June 28, US)
- Maryland's veto of advanced meter deployment stuns smart grid advocates (*New York Times*, June 23)
- Ontario sets best practices for smart grids (ITWorldCanada.com, June 16)
- Smart grid start-ups on M&A radar (*Reuters*, June 10)
- Booming market for China's smart grid (*United Press International*, June 10)

Resources

- SMSIP website
 - Ministry of Energy and Infrastructure
 - Ontario Energy Board
 - I would like to help my LDC begin the MDM/R integration process (mdmr.registration@ieso.ca)
 - My LDC is processing smart meter data in the MDM/R production system (mdmr.incidentupdate@ieso.ca)
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In general, each LDC must complete the following activities before billing its customers on TOU rates:

1. Its smart meters must be deployed;
2. It must be registered with the SME, test its systems with the MDM/R and transition to the MDM/R production system;
3. Its interval smart meter data must be flowing into the MDM/R production system on a daily basis;
4. LDC customers must be informed of their upcoming transition to TOU billing.

LDCs are also required to report their smart metering and TOU progress on a quarterly basis to the Ontario Energy Board.

Hydro Ottawa successfully transitions to MDM/R production system

Hydro Ottawa has become the ninth local distribution company to enrol its smart meters in the MDM/R and now has approximately 5,000 meters transmitting data to the MDM/R production system.

The company successfully cutover to the production system this month after participating in enrolment testing from December 2009 through May 2010. It now submits meter read files daily to the MDM/R.

“Managing smart meter data has been one of the most significant IT initiatives seen at the company in recent memory,” said Roger Marsh, Director, Metering and Electricity Revenue at Hydro Ottawa. “Nearly all of Hydro Ottawa’s approximately 300,000 residential customers now have a smart meter installed and we are working diligently to ensure each one connects reliably with our Advanced Metering Infrastructure (AMI) systems as we roll out TOU billing.”

An LDC “cuts over,” to the MDM/R production system once it completes formal enrolment testing, which includes System Integration Testing (SIT), Qualification Testing (QT) and specific cutover preparation activities. After cutover, the LDC’s enrolled smart meters can transmit data to the MDM/R which then sorts the data into billing quantities. The LDC ultimately decides when it will bill customers on TOU rates once its systems are ready. LDCs are also required to notify customers at least 30 days in advance of switching them to TOU rates.

More than 40 LDCs registered with the SME to date

More than 40 LDCs are now registered with the SME, and are at various stages of the MDM/R registration and enrolment process, as a result of increased Smart Metering Initiative participation during the past year. Among them, 20 have confirmed their MDM/R enrolment dates, while others are nearing their transition to the MDM/R production system.

LDCs in the process of MDM/R registration and enrolment include Bluewater Power Distribution, Essex Powerlines and Oakville Hydro, and represent 1.2 million eligible customers. In addition, nine have completed MDM/R registration and enrolment, with the number of LDCs using the MDM/R to bill customers expected grow throughout 2010 and 2011.

During MDM/R registration, the LDC establishes MDM/R-related business relationships with its billing agent, Advanced Metering Infrastructure (AMI) operators and any other agents or consultants acting on its behalf. Registration generally occurs throughout the integration process and also includes the following:

- It initiates project monitoring and status reporting;
- It identifies specific configuration and communication requirements between the LDC, the MDM/R and any LDC agents;
- It provides detailed technical assistance as required.

Enrolment is the process of developing and testing various LDC systems – including elements of its AMI and Customer Information Systems (CIS) – to integrate them with the MDM/R.

Taken together, the MDM/R registration and enrolment process ensures that LDC systems successfully integrate with the MDM/R.

“We are encouraged by the number of LDCs that are in the MDM/R registration and enrolment process and working with the SME,” said Przemek Tomczak, Director, Smart Metering at the IESO. “We will continue to provide our support and assistance in any way we can.”

Measurement Canada billing format requirement update

The Cumulative Register Reading Working Group (CRRWG) plans to form a subcommittee to accelerate the development of an MDM/R-based solution that adheres to [Measurement Canada electricity billing format requirements](#) and supports all provincial AMI technologies.

Based on feedback received from Measurement Canada representatives June 14, the CRRWG, which is co-chaired by the Ministry of Energy and Infrastructure (MEI) and IESO, began work on a revised solution that will reflect cumulative register read consumption. The solution will also present that consumption, along with the cumulative register reads, on customer invoices.

It is expected that the CRRWG will establish the subcommittee’s structure at its next meeting July 14. The subcommittee will then work directly with the various technology vendors that will be impacted by the solution. To support the subcommittee’s work, the IESO has scheduled initial discussions in early July with the MDM/R software vendor to explore solutions.

Ask the Trainer: When should meter reads be submitted?

The MDM/R operates under the following service level agreements:

- If a specific day’s meter read data is sent before 5 a.m. Eastern Standard Time, it will be available for billing by 8 a.m. EST, unless the interval data Needs Verification Editing (NVE).
- Meter read data sent after 5 a.m. EST will be processed within six hours.
- The MDM/R Final Reports received by 1:30 a.m. EST will reflect all meter read data sent on the previous day.

For further information, please visit the Technical Interfaces and Samples page on the [SMSIP website](#).

The IESO is responsible for managing Ontario’s bulk electricity system and operating the wholesale electricity market. As the Smart Metering Entity, the IESO manages the Smart Metering Initiative’s implementation, operates the provincial Meter Data Management and Repository (MDM/R) and ensures LDC smart meter and IT systems integrate with it to support provincial time-of-use (TOU) rate objectives.

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