

Smart Meter Data Access

OEA Smart Grid Corporate Partners Committee
Presentation to the Ontario Smart Grid Forum, October 12, 2010

Shelley Lewis, The SPi Group



***Ontario Energy
Association***

Current Environment

- LDCs are the custodians of customer meter data
- In 2002, EBT standards opened access to meter data to electricity retailers and agents
 - Focus on authorization by customer
 - Enables two-way data flow up to and including settlement between LDCs and retailers
 - Agreements in place: Retail Settlement Agreements
 - Meter data is billing quality
 - Regulated by the OEB

Needs in the New Environment

1. Billing quality data in hourly or TOU buckets format for retailer billing and settlement process (based on billing period)
2. Near real time data from the meter for other purposes
 - In home displays, demand response thermostats, energy dashboards, etc.
 - Near real time means as frequent as < 1 minute

Constraints

- Frequency of LDCs polling the meters
 - Only needed monthly
 - Data volumes being transmitted
- MDM/R service level agreements require billing determinants to be returned in a timeframe that does not support retail billing timeframes
- Current EBT standards do not require LDCs to provide hourly or TOU data to retailers
- No mechanism for entities other than LDCs, retailers and agents to access customer meter data
- AMI vendors each have their own technical specs for data and the ability to provide the data
 - E.g. Need for 2 radios?

Impact

- Inability for electricity retailers to offer TOU products to the market
- Inability for vendors to develop/provide products to the market as a whole
 - Dependent on the meter provider

Recommendations

1. Clarify to the (greater) market who is responsible for controlling access to consumption data.
2. Establish an administrative process for customers and their agents to access their data.
 - both at the meter and at the LDC/MDM/R
 - with appropriate granularity and frequency

Recommendations

3. Form an independent technical evaluation team to determine whether existing installed meters can be accessed by in home equipment and publish the standards for each existing vendor.
4. Determine and publish a set of communications standards for all meter vendors in Ontario (e.g. zigbee, ANSI C12.xx).
5. LDCs should require that all future purchases of meters meet the communications standards established in 4. above.

Recommendations

6. OPA (or MEI) to negotiate bulk procurement of the proprietary native communication access licenses of the three primary AMI technologies currently in Ontario. Then allow open access for all third party vendors who wish to develop solutions that communicate over their network for a standard pass through fee.
7. Establish a certification and test environment for Ontario's smart grid to allow testing of products and demonstrations to ensure compatibility with LDC infrastructure (meters, etc.)
8. OEB to direct that electricity retailers and agents be given access to smart meter data and ask the OEB EBT working group to enable this through their existing process. Invite the IESO to join the working group for this purpose.