

Memorandum

To: Stakeholder Advisory Committee

From: Sorana Ionescu – Director, Smart Metering

CC: Doug Thomas – Vice President, I&TS and CIO

Date: August 15, 2017

Subject: IESO Business Update – Smart Metering Entity

The IESO is pleased provide two key updates from the Smart Metering Entity. An update on the 2016 OEB Orders Implementation Status and the New SME Fee Application to the OEB.

I. 2016 OEB Orders Implementation Status

The SME was required by an Order of the OEB to start collecting effective January 1st 2017 additional information associated with each smart meter (specifically postal code, distributor rate class, commodity rate class, and occupant change data), modified where necessary to sufficiently render it non-personal, and to make this information available to third parties.

Following the January 2016 OEB Order, the IESO established an LDC working group and worked with Privacy Analytics, a privacy consultant that was recommended by the Office of Information and Privacy Commissioner of Ontario (IPC), to develop the following data collection process:

- a. 6 digit postal code (with unique dwelling postal codes generalized as W8W8W8),
- b. The distributor rate class,
- c. The commodity rate class, and
- d. Occupant change data (generalized at the year level)

The LDC Working Group met its objectives successfully and with LDC compliance close to 100% by the first part of 2017, the SME turned its focus to the development of a third party access implementation plan. Following the discussions in the previous SAC meeting on May 10th, the SME appointed the Data Strategy Advisory Council (“DSAC”) to provide input and guidance over 2017 /2018 in the development of the third party access plan. The following are the representatives in DSAC:

Members (plus IESO Chair):

- LDCs: Hydro One Networks, Waterloo North Hydro, Hydro Ottawa, Alectra Utilities, Toronto Hydro, Essex Power Lines
- Gas sector: Enbridge Gas
- Water sector: Ontario Clean Water Agency
- Municipalities: Oxford County, City of Guelph
- Municipal Property Assessment Corporation (MPAC)
- Service Providers: Rodan Energy Solutions, powerconsumer Inc., Mission Data (US)

Observers: MoE, OEB, EDA

More details on the membership and information on meetings to date are made publicly available on the IESO Stakeholder Engagement [website](#).

A broader and controlled/phased-in access to the data in the MDM/R is planned to begin in 2018 following the test cases development work done through the DSAC. To date, a number of valuable test cases have been received by the IESO and the goal is to complete as many as possible by year end. These test cases will provide important learnings to the IESO and the data requestors themselves, on the development of the broader third party access plan. Below is a brief summary of these test cases:

Oxford County: interested in creating an electricity baseline that leverages hourly electricity data for the purpose of improving efficiency, encouraging energy conservation and aiding in the transition to renewable energy. Would help create an energy dashboard to establish electricity loads and to track the community progress toward renewable energy goals, with lessons learned being applied to all energy resource types utilized in Oxford County.

Enbridge Gas: interested in establishing electricity consumption load profiles to help predict the greenhouse gas (GHG) impact of the power grid by comparing consumption profiles and understanding when it is most feasible to engage the hybrid systems (like electric air source heat pumps, micro CHPs, Geothermal heat pumps, battery storage and photovoltaic, thermal storage).

City of Guelph: interested in receiving support for energy mapping, with monthly/annual consumption to create an emissions inventory for the region and identifying priority areas for implementation of programs supporting energy efficiency, distributed generation and conservation and ultimately reducing GHG emissions and meeting emission reduction targets for Ontario and the GTHA municipalities.

Ontario Clean Water Agency: interested in augmenting existing processes to benchmark facilities against one another, and target energy conservation efforts on underperforming facilities. This may require integrating energy consumption data with existing process data and with the ultimate benefits of identifying energy saving opportunities for the 800 water and wastewater treatment /distribution /collection facilities across Ontario.

OEB: interested in collecting electricity consumption information on a small commercial (GS<50kW) customers and aggregated based on different percentiles, to better understand small commercial customers energy use patterns and make more informed decisions in the design of a future state RPP.

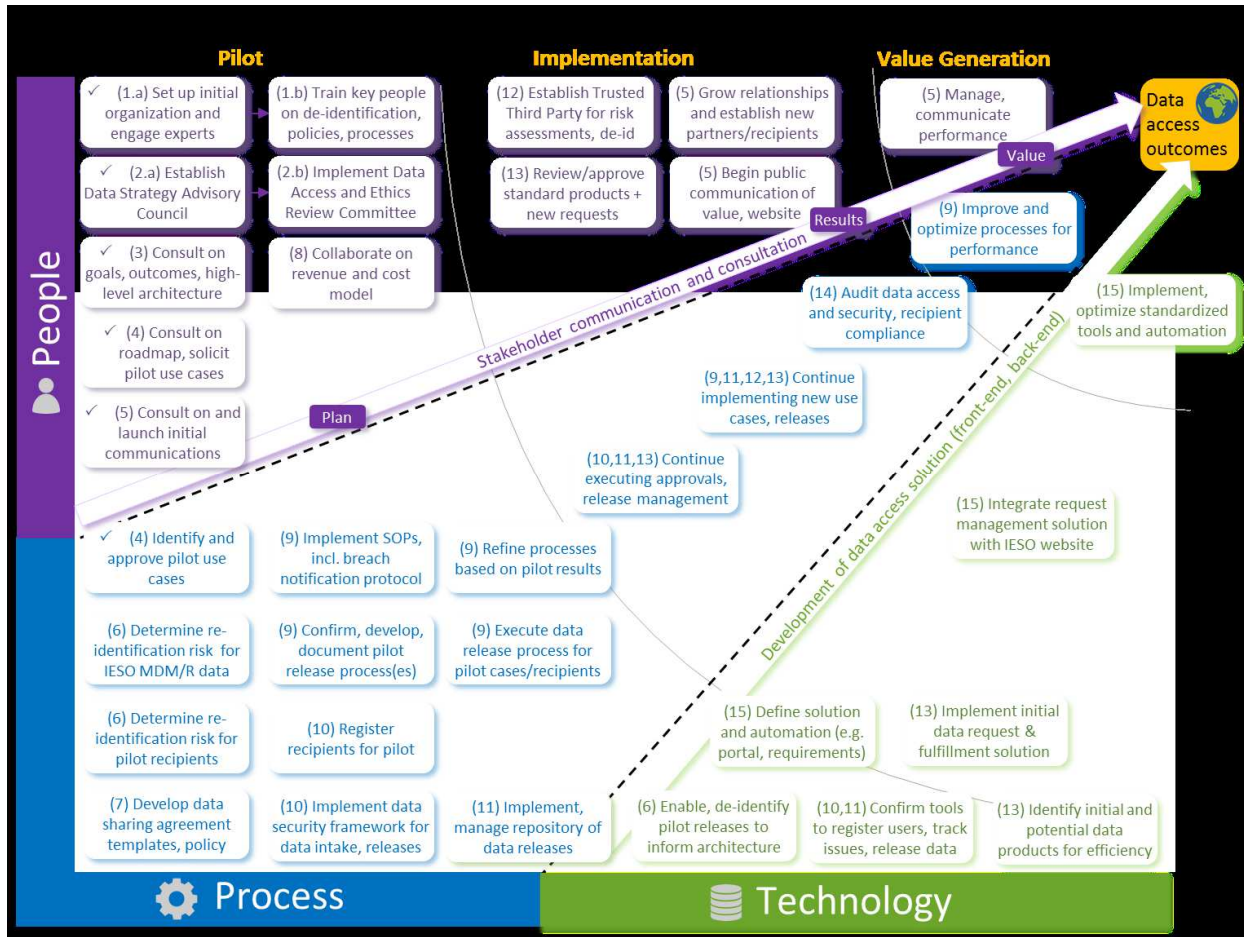
IESO: interested in improving short and long term electricity demand forecasting by acquiring historical data at the meter level with Rate Class and Occupant Change information. This will also help with system modelling and demand forecasting efforts in order to make more informed decision making in terms of regional planning, adequacy assessments and analysis of the impact of conservation programs on electricity demand in all time frames.

Privacy Analytics Inc. continues to closely support the IESO in the development of the third party access plan as described below:

1. Performing Phase 2 of the privacy analysis initiated in 2016 (then at conceptual phase), now with the actual additional data collected by the SME. This analysis will validate the current methodology for collecting the additional data fields as requested by the OEB and is scheduled to complete by the end of September 2017
2. Supporting the test cases with a Risk of Re-Identification Analysis and De-identification Options to ensure that the utility of the output data is maximized, while the data in the MDM/R remains de-identified even after linking to other data sets (this work will start following completion of the Phase 2 of the privacy analysis).

As will be the case with the broader initiative, the SME will enter into appropriate legal agreements with each recipient of the data in the test case phase, which will clearly specify the recipient's obligations with respect to the intended use of data, constraints on such use, data security and compliance with all applicable privacy laws.

- Developing a detailed “18-month plus” roadmap for the third party access project plan with options and guidance on all the three key dimensions of the project: people, processes and technologies (snapshot attached below)



The SME will also undertake a broader engagement initiative by the end of the year to ensure that all interested audience in the province have an opportunity to learn about the project and to provide input to the IESO in its development. The IESO will continue to keep the Office of Information and Privacy Commissioner of Ontario (“IPC”) fully engaged.

The calendar of key activities in 2017 is listed below:

Deliverables	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18
Development of Engagement Plan and Terms of Reference	✓	✓								
Open Call/Closing of Nominations & Announcement of DSAC	✓	✓								
Privacy Analytics - Phase 2 Risk of Re-Identification analysis			✓	✓		Sep 8 th				
Privacy Analytics (Delivery of Roadmap)		✓	✓	Jul 28 th						
Test Cases		Submission	Analytics, Selection & Preparation				Execution			
DSAC Meetings			Jun 15 th Jun 27 th		Aug 2 nd	Sep 13 th	Oct 18 th	Nov 15 th	Dec 13 th	TBD
IESO Stakeholder Engagement Website	✓	✓	✓	✓						
SSC Meetings/LDC Open Calls			✓			Sep 12 th		Nov 21 st		
Broader Stakeholder Engagement								TBD		
IESO Stakeholder Advisory Council (SAC)		✓			Aug 23 rd		Oct 4 th			
SME/LDC Event								TBD		

II. New SME Fee Application to the OEB

The current SME 5-year budget will expire at the end of 2017 and the current fee, or Smart Metering Charge (“SMC”) is set to expire October 31st 2018. The SME is planning to submit to the Ontario Energy Board a new budget & SMC, effective January 1st 2018. The new 5-year SMC is projected to be lower than the current fee of 79cents/meter/month thanks to an accelerated recovery of the original debt (the SME started collecting for the historical MDM/R build costs in 2013), a conservative business model and increasingly more efficient MDM/R operations.