

Re: RF-2004-0196 – Minister’s Directive on Implementing Smart Electricity Meters in Ontario

Whitby Hydro is pleased to submit comments on the Ontario Energy Board Staff Discussion Paper: *“Implementation Plan for Smart Meters in Ontario”*

The following is an outline of our comments, as requested:

1 INTRODUCTION AND PAPER OVERVIEW

1.2 Scope

The Discussion Paper specifically mentions... *“The Board has been asked to identify the mandatory technical requirements that will define what a smart meter is for Ontario.”*

We understand that the technical requirements are a key consideration in this process. We also understand that meters serve one primary function for an LDC, that is – to accurately record energy used by a customer and use this information to settle and produce a bill. Although, various functions can be controlled through the meter- it still remains that the primary role of a meter is to record consumption. This should be considered when setting the minimum requirements.

As an LDC we see the minimum requirements for a smart meter to be – a meter that:

- Provides interval data on a 5, 15, 30 or 60 minute interval
- Time of Use can either be a function of the meter or of the software if the meter can read intervals (it should be at the discretion of the utility whether they want to purchase meters that offer time of use or control that through software)
- The meters need to be able to be read remotely
- The information is available to the customer via web
- The information from the meter needs to be in a standard format such as .prn or .csv

3 ESSENTIAL ELEMENTS OF AN IMPLEMENTATION PLAN

3.1 Procurement Strategy

Although economies may be realized through bulk purchases of a particular metering technology, in order to promote a truly open and competitive market for meter suppliers, the decision to self source or bulk buy should be left to the discretion of the utility. The decision makers in this procurement process should be the Local Distribution Companies (LDC). This way, buying groups will form naturally among LDC’s and natural competition and market forces will ultimately drive pricing. This will also allow suppliers to develop pricing strategies that take advantage of volume buys, etc.

As mentioned, it is strongly suggested that the procurement strategy should not be determined by a government organization but rather by the market and the LDC's themselves.

3.2.2 New Homes

We support the OEB in focusing on the new housing and new commercial installations to limit the potential of creating new stranded assets. Much of the retrofit applications can be replaced with smart meter technologies when the seal dates expire, allowing LDC's to recover some of the capital costs associated with the existing meters .

3.3 Interim Targets

The ability to set and meet targets is really a function of costs. If targets are set, most LDC's will assess how many installations can be achieved internally and then the remainder will be contracted out. This however will be determined on their ability to recover the costs of installation.

3.4 Process Driver

The Discussion Paper suggests that *“a single entity will likely be needed to drive the work, to coordinate the actions of distributors and other participants, to track progress against the targets and to apply rewards/penalties for compliance.”*

As mentioned, we strongly feel that the Local Distribution Company's should have decision making authority on the selection, procurement and installation of smart meters – based on pre-established minimum requirements. Targets, rewards, penalties and incentives will assist in the LDC implementation planning process. A single entity to oversee and monitor progress towards results may be respected and required at a higher level to ensure that the provincial objectives are met.

4 COST RECOVERY

Integrating the cost of meters in the rate base is an option that needs to be considered. To reduce the impact, the cost of meters in new installations could be incorporated into the developers' economical evaluation. This would reduce the capital outlay to utilities, put the cost onto the developer and have a minimal impact on utility rates. Rate adjustments would therefore only be associated with the replacement of existing meter installations.

To further understand the financial impact of installing smart meters on mass, an in depth cost analysis comparing existing costs with new costs and potential costs savings should be carried out. This would provide the ground work to determine avenues for cost recovery.

Things to consider:

- Data storage

- Communication costs
- Capital costs
- Sealing costs
- Technical support (both for meter support and software support)
- Software costs
- System integration costs (integration into billing systems)
- Staffing costs

The current cost to an LDC for a typical meter read is \$0.40 a read which is carried out normally once every two months. Costs and savings of smart meters should be compared to this cost per meter read to determine the added costs or savings of the installations. Understanding these expenses may assist in identifying cost recovery options.

5 METERING FUNCTIONS

As stated in 5.1, *“the primary function of the meter is to provide information for settlement.”* To Local Distribution Companies, the meter is often referred to as the utilities “cash register” and anything other than reading consumption accurately, should come as a secondary option.

As a minimum, the meter should:

- Provide interval data on a 5, 15, 30 or 60 minute interval or what ever interval is determined by the OEB as the standard. The ability for a meter to collect time of use data is secondary. Time of Use bill calculations can be a function of billing rather than the meter. If interval data is collected then time of use block structures and rates can be applied internally and adjusted internally. It should be at the discretion of the utility if they want to create the time of use billing structure at the meter level or at the billing level.
- The meters should be able to be read remotely. (The ability of a meter to be bi-directional will be dependent on the meters ability to meet the specifications as set by the OEB).
- The information should be available to the customer via web
- The information the meters provide should be based on an open protocol. This will reduce the need of LDC’s to purchase proprietary software for each metering system they install. The only software requirements will be for remotely accessing and changing the metering protocols.

5.4 Bi-directional Communication

It is important to keep the main purpose of the meter in mind and that is – to collect data for settlement. The ability to use two-way communication for load control, disconnection, signalling the user, etc. is a secondary function and does not necessarily have to be funnelled through the meter. Bi-directional communication should be strictly for changing the parameters of the meter remotely. Other uses should be secondary and at the discretion of the LDC.

6 OWNERSHIP

As stated earlier the meter is considered the “cash register” of the LDC. The meter read is what is important to the LDC more so than the meter asset. However, it is difficult for a utility to give up the control of the meter and trust someone else to provide them with the meter read information. It is really irrelevant who physically owns the meter as long as the information provided to the LDC is of a standard protocol and integrates with their billing requirements. It should be at the discretion of the LDC whether or not they want to give up ownership of the meters and to whom they give this to. This will ensure consistency in the information the LDC receives.

7 OTHER CONSIDERATIONS

7.2 Production and Installation

Minimizing the specifications of the meters will allow for quicker production and greater competition. If the meters are required to be too multi-functional, the number of suppliers will be limited and supply will be tight. There are a number of meter providers that are interested in the Ontario market but are waiting for clarification on the definition of a smart meter so that they can get Measurement Canada approval on their systems. The sooner the minimum specifications are set the sooner meters will be submitted for approval. If there are a significant number of meter suppliers in the market, supply should not be an issue. Installation can be achieved if funding is available to hire staff to complete the work.

Thank you for allowing us the opportunity to provide comment on this Discussion Paper.