

Ontario Energy Board

Report of the Board

Smart Metering Initiative: Draft Criteria and Filing Guidelines for Smart Metering Pilots

September 25, 2007

1.0 Introduction

The Province of Ontario has committed to having smart electricity meters installed in 800,000 homes and small businesses by the end of 2007 and throughout Ontario by the end of 2010. The Province has enacted legislation and issued regulations to enable the implementation of its smart metering initiative.

Section 53 of the *Electricity Act, 1998* prohibits distributors from undertaking discretionary metering activities, including the installation of smart meters, unless permitted to do so by regulation, a Board order or Measurement Canada requirements. Thirteen electricity distributors have been authorized by regulation to undertake smart meter deployment activities.

Ontario Regulation 427/06 (Smart Meters: Discretionary Metering Activity and Procurement Principles) (“Regulation 427/06”) made under the *Electricity Act, 1998* provides that any distributor may be permitted to undertake discretionary metering activities under certain limited conditions to test smart meter technologies (“smart meter pilots”). Smart meter pilots must be approved by the Board in advance.

The purpose of these Guidelines is to define the purpose of a smart meter pilot, explain the criteria the Board will use when reviewing proposals for pilots, and identify the material to be filed with applications for approval of a smart meter pilot. These Guidelines also explain how the information that distributors obtain from undertaking a smart meter pilot is to be shared with other distributors to assist in the efficient and effective implementation of the smart metering initiative.

2.0 Purpose of Smart Meter Pilots

Regulation 427/06, allows distributors to undertake pilots for the purpose of testing smart meter technology. The Regulation requires that all such smart meter pilots must receive prior approval from the Board.

The Board does not consider it economically prudent to have numerous distributors piloting the same technology or technology that has already been deployed within the Province. Therefore smart meter pilots should involve the installation, testing or evaluation of smart metering technologies that are either not already in use in the Province or are not already being deployed within the Province.

The Board expects that a properly structured smart meter pilot should provide an opportunity to gain experience in all aspects of commissioning and operating smart meter systems, including: business processes, installation procedures, logistics, deployment, integration issues, customer communications and customer impacts.

A distributor may also, as part of its smart meter pilot, evaluate consumer response to time-of-use pricing. Any pricing related aspects of the smart meter pilot that will affect the amount that consumers will pay for commodity must be approved by the Board under section 3.9 of the Standard Supply Service Code (“SSS Code”).

3.0 Funding

Regulation 427/06 requires that smart meter pilots be funded from the funds collected pursuant to the smart meter rate adders incorporated into distributors’ 2006 electricity distribution rate orders. A distributor shall record the costs of any approved smart meter pilot in a sub-account of the smart meter deferral account, Account 1555, which has already been established.

4.0 Pilot Criteria

The Board will review an application for a smart meter pilot against the following criteria:

- (i) The distributor may only install smart meters and directly related metering equipment, systems and technology for a maximum of:
 - i. 5 percent of the distributor's customer base; or
 - ii. 200 customers,whichever is greater.

- (ii) A distributor shall ensure that the smart metering technology it deploys meets the requirements of Ontario Regulation 425/06 (Criteria and Requirements for Meters and Metering Equipment, Systems and Technology) made under the Electricity Act, 1998.

- (iii) The smart meter pilot will evaluate the smart metering technology with respect to all aspects of commissioning and operating smart meter systems including business processes, installation procedures, deployment, and system integration issues.

- (iv) The smart meter pilot will not involve metering technologies that are being deployed by the distributors referred to in paragraphs 3, 5 or 7 of subsection 1 (1) of Regulation 427/06; or that are being evaluated by any other distributor in Ontario.

- (v) Installation of smart meters deployed in the pilot will be targeted wherever possible to replace meters that are required to be replaced pursuant to the *Electricity and Gas Inspection Act (Canada)*.

- (vi) The costs of the pilot are reasonable and will be less than the funds collected by the distributor's 2006 smart meter rate adder.

- (vii) The distributor does not and will not have any further obligation to the supplier of the smart meter technology being tested.
- (viii) Consumers that are provided smart meters as part of the pilot will be charged the Board's approved conventional meter Regulated Price Plan prices under section 3.3 of the SSS Code, unless the Board approves the implementation of a different commodity price under section 3.9 of the SSS Code.
- (ix) The distributor agrees to share the results and knowledge gained through the pilot with the Board and the public.

5.0 Filing an Application

In accordance with Regulation 427/06, a distributor is required to obtain approval from the Board prior to undertaking a smart meter pilot. The application should include the following information:

- (i) A description of the technology the distributor will be testing, including the name of the supplier(s), the type of meter and WAN technology.
- (ii) A certification that, to the distributor's knowledge, no other distributor is deploying or testing the same metering technology.
- (iii) The number of meters to be deployed, the number of customers or percentage of the customer base that will be involved in the pilot and the criteria the distributor intends to use to select the locations for the installations.
- (iv) The expected costs of the pilot and the amount of funds that the distributor has collected as a result of the distributor's 2006 smart meter rate adder, as currently recorded in Account 1555.

In the case of a smart meter pilot that includes a pricing pilot a distributor must file an application under section 3.9 of the SSS Code. The application must provide a description of the pricing pilot, including whether the consumers will be billed based on the Regulated Price Plan time-of-use prices

6.0 Reporting Requirements

A distributor that undertakes a smart meter pilot shall file with the Board a report six months after the initial meter installation, and within two months of the completion of the smart meter pilot detailing the following:

- (i) The number of meters deployed.
- (ii) The period over which the pilot has occurred.
- (iii) The results of any consumer surveys, equipment testing results, or other research.
- (iv) In the case of an approved smart meter pilot that includes a pricing pilot, the distributor shall provide a report on the consumer reaction to the commodity prices and the number of consumers (broken down by class and commodity price, if appropriate) that participated in the pricing pilot.
- (v) A report providing a technical and economic analysis of the pilot, including the costs per meter installation, impacts on metering accuracy and costs, customer information system integration issues, and data verification issues.
- (vi) A report that will be made public to other distributors and interested parties for the purposes of providing information about the technology and any consumer pricing results.