Hydro One Networks Inc.
8th Floor, South Tower
483 Bay Street
Toronto, Ontario M5G 2P5
www.HydroOne.com

Tel: (416) 345-5700
Fax: (416) 345-5870
Cell: (416) 258-9383
Susan.E.Frank@HydroOne.com

Susan Frank
Vice President and Chief Regulatory Officer
Regulatory Affairs

BY COURIER

November 24, 2010

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
Suite 2700,
2300 Yonge Street
Toronto, ON M4P 1E4

Dear Ms. Walli:

EB-2010-0282 – Application for Exemption from Mandated Time of Use Pricing for Certain Regulated Price Plan Consumers – Hydro One Networks Inc. Responses to Interrogatory Questions

Please find two (2) hard copies of responses provided by Hydro One Networks Inc. to Interrogatory questions from the Ontario Energy Board.

An electronic copy of the Interrogatories, have been filed using the Board's Regulatory Electronic

Sincerely,

ORIGINAL SIGNED BY SUSAN FRANK

Susan Frank

Attach

Ontario Energy Board (Board Staff) INTERROGATORY #1 List 1

Interrogatory

Preamble

Hydro One Networks Inc. (Hydro One) states in its application that it is seeking an exemption from its mandatory Time-of-Use (TOU) date of June 2011 for certain Regulated Price Plan (RPP) consumers that are currently outside the reach of Hydro One's smart meter telecommunications infrastructure.

Questions

a) Please confirm the status of Hydro One's smart meter deployment and TOU implementation as of October 31, 2010.

b) Please specify the part(s) of Hydro One's service area (and number of customers) affected by this application.

c) Please describe the factors that Hydro One considered in making this application.

Response

a) The following table was provided by Hydro One Networks Inc. to the Ontario Energy Board ("the Board") as part of its monthly reporting process[1] on progress related to smart meter implementation and TOU implementation:

Distributor name: Hydro One Networks Inc.			
Period ending: October 31st, 2010			
	RPP-eligible Consumers: Residential Class	RPP-eligible Consumers: General Service Less Than 50kW Class	Total
Total number of RPP-eligible consumers	1,096,851	91,953	1,188,804
Number of smart meters installed in current month	1,166	574	1,740
Number of smart meters registered with the MDM/R in current month	49,978	4,346	54,324
Number of RPP consumers being charged TOU prices added in current month	93,460	8,127	101,587
Total cumulative number of smart meters installed in the service area at the end of current month	1,087,294	82,281	1,169,575
Total cumulative number of smart meters registered with the MDM/R at the end of current month	583,067	50,701	633,768
Total cumulative number of consumers being charged TOU prices at the end of current month	343,325	29,854	373,179
Percentage of total RPP-eligible consumers with smart meters installed at the end of current month	99%	90%	98%
Percentage of total smart meters installed that are registered with the MDM/R at the end of current month	54%	62%	54%
Percentage of total RPP-eligible consumers being charged TOU prices at the end of current month	31%	33%	31%

Hydro One is on track to migrate 1.05 million customers to TOU billing by June 2011. Based on anticipated progress, a solution that adequately addresses the 150,000 RPP customers that are currently outside the reach of the Hydro One smart meter telecommunications infrastructure is not expected until at least the end of 2012.

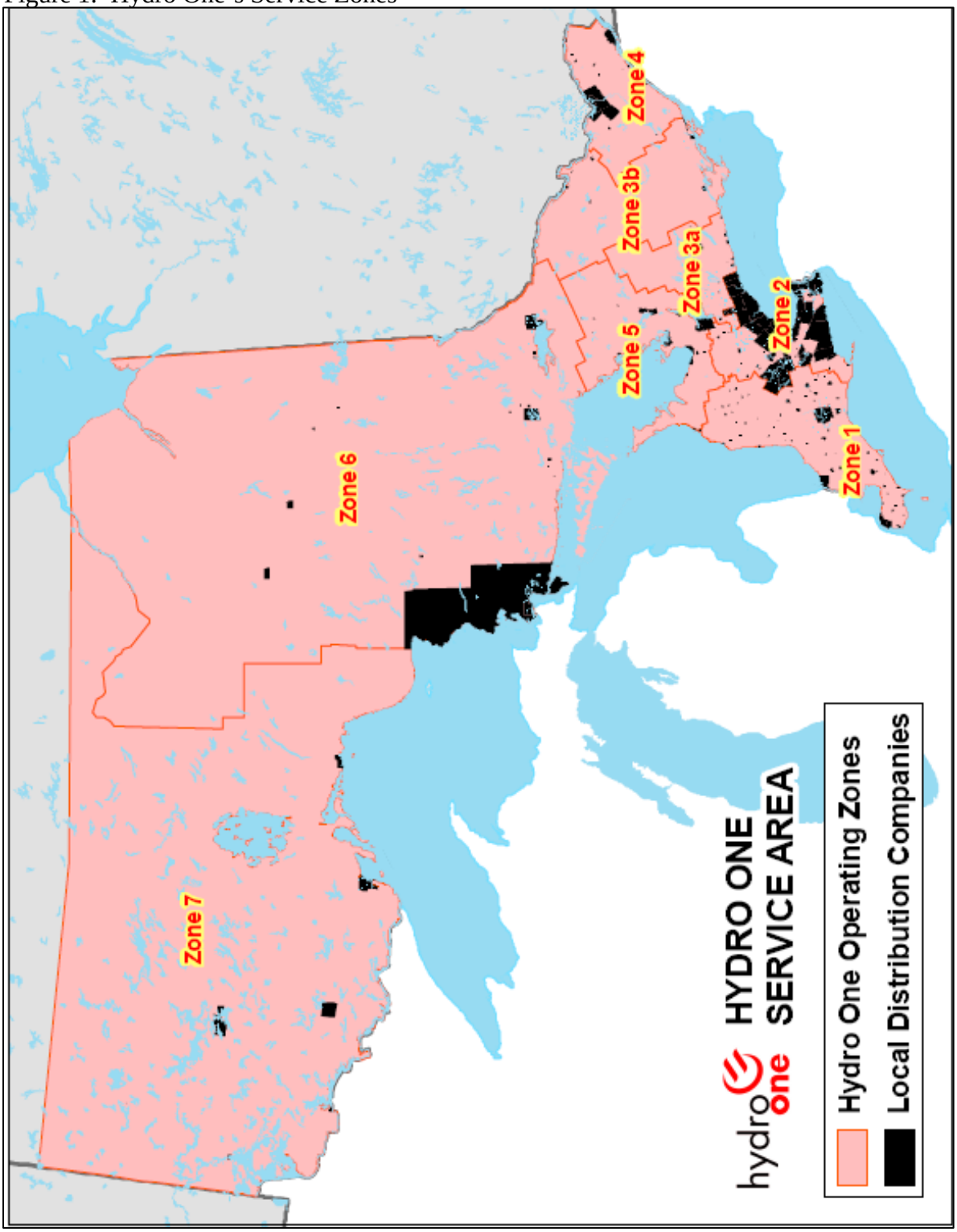
[1] New Reporting Requirements in Relation to the Board's Determination Under Section 1.2.1 of the Standard Supply Service Code to Mandate Time-of-Use Pricing for Regulated Price Plan Customers
Board File No. EB-2010-0218

b) The following table represents the geographically-based technology gap. The gap can be characterized to be of two types: i) There is no wireless data service in the area at all; ii) There is wireless data service in the area, but the signal is insufficient to reach all the customers. The table below is broken down by Hydro One's service zones. These numbers are approximate and represent the best information available.

	Number of Customers			
Zone	**To be Migrated to TOU Billing by June 2011**	**Gap 1 - No Wireless Coverage at all**	**Gap 2 - Insufficient Signal within Areas with Wireless Coverage**	**Total Number of RPP Eligible Customers**
West - 1	180,500	0	5,200	185,700
West Central - 2	115,300	0	4,800	120,100
Central - 3A	169,300	4,000	4,500	177,800
East Central - 3B	159,800	14,000	6,750	180,550
East - 4	177,100	2,000	6,750	185,850
Georgian Bay - 5	138,000	13,000	18,000	169,000
Northeast - 6	94,300	14,000	22,500	130,800
Northwest - 7	15,700	12,000	22,500	50,200
Total	**1,050,000**	**59,000**	**91,000**	**1,200,000**

Please See Figure 1 (below), a Map of Hydro One's service zones.

Figure 1: Hydro One's Service Zones



c) Hydro One fully supports the benefits of smart meters and TOU rates. The Company has installed over one million smart meters in its service territory so far. As indicated in Hydro One's baseline report (filed with the Board on July 6th, 2009), the Company is on track to migrate 1.05 million customers to TOU billing by June 2011. The rest (about 150,000 customers) are located in areas where existing technology will not reach.

Hydro One's goal is to transition its RPP customer base to TOU billing at the lowest lifecycle cost. Hydro One considered the following factors before filing this application:

1. Compliance

Hydro One complies with regulatory and legislative requirements. With the requested exemption Hydro One will be maintaining compliance with the final determination to mandate TOU pricing for RPP customers.

2. Hydro One Service Territory and Existing Technologies

The vast service territory of Hydro One presents many unique technological challenges to the installation and operation of smart meters. Its low customer density also creates a special implementation cost challenge.

Hydro One has examined the existing technologies and concluded that they have reached their limit and will not be able to support the very rural and very sparsely populated portions of the Hydro One service territory (about 150,000 customers).

3. Alternative Solution and Cost

Given that the existing technologies have reached their limit, Hydro One is looking at the performance and the costs of alternative technology solutions that will further extend the reach of its network.

Ontario Energy Board (Board Staff) INTERROGATORY #1 List 2

Interrogatory

Preamble

Hydro One states in its application that a solution addressing its smart meter telecommunications infrastructure situation is not expected until at least the end of 2012. It also states that it "is evaluating alternate solutions that would meet the core Time-of-Use objective at the lowest lifecycle cost."

Questions

a) Please describe in detail Hydro One's plan, **including timelines**, to extend its smart meter telecommunications infrastructure to reach the affected customers and transition them to TOU billing.

b) Please provide the projected costs to install the infrastructure to these customers and the projected ongoing costs once installed, comparing these costs to the usual costs per customer in Hydro One's service territory.

c) Please describe the alternate solutions and associated costs that Hydro One is evaluating.

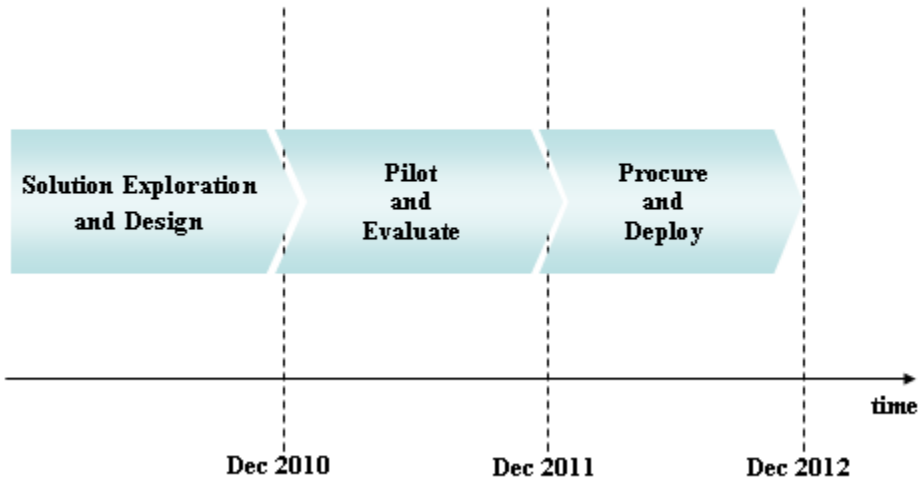
Response

a) The following is a high-level plan and timeline for extending Hydro One's smart meter telecommunications infrastructure to reach the affected customers and transition them to TOU billing.

Hydro One intents to conclude solution design in 2010. Once the potential technologies have been identified, they will be pilot field tested in 2011. Hydro One does not expect to have a "one-size-fits-all" technology solution for this remaining group of customers due to variations in customer cluster sizes, distances between clusters of customers, and lack of cellular service in the area. Based on Hydro One's current estimates, these "tailored" solutions that will adequately address the 150,000 RPP customers that are currently outside the reach of the Hydro One smart meter telecommunications infrastructure are not expected until at least the end of 2012.

This timeline is based on Hydro One's current estimates. It is expected that this project plan will be "fine-tuned" as the Company learns more about these potential solutions. Hydro One will inform the Board if there is any material change in the project timeline.

Hydro One's Smart Meter Data Communication
'Geographic Reach' Gap Solution Plan

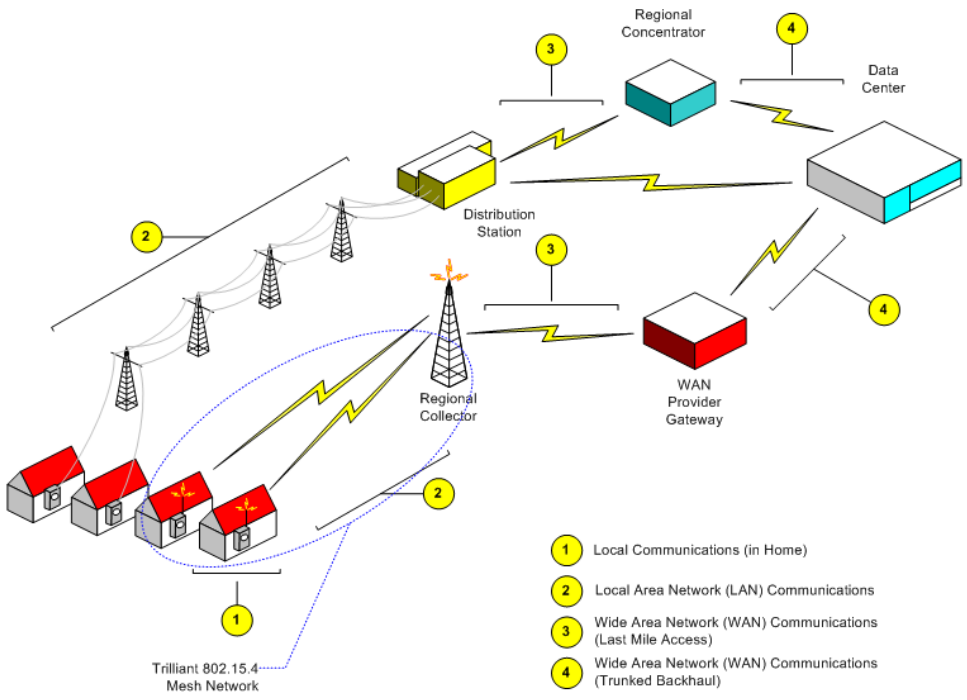


b) Hydro One is currently exploring solutions and designing processes for the affected customers. It is premature to provide cost estimates (both installation and on-going) for these potential solutions. Hydro One anticipates that the cost of providing data communication service to these 150,000 customers will be significantly higher than the average for the Hydro One service territory.

c) **Hydro One's Existing Smart Meter Primary Solution**

Hydro One's existing smart meter primary solution is a standards-based Automated Metering Infrastructure ("AMI") solution provided to Hydro One by Trilliant Networks Inc. At present, it relies on available commercial wireless networks to 'back haul' data to Hydro One's data collections headquarters.

Hydro One's approach is to install smart meters and an array of wireless data collectors. These collectors work with the smart meters to collect the data from a number of meters and then send it to Hydro One's data processing head quarters via the available commercial wireless networks (see figure below).



Closing the Gap

Hydro One plans to address the gap by leveraging/expanding the existing technology platform and developing alternative technology solutions. A meaningful estimate of the costs of these potential solutions is not yet available.

Leveraging Existing Technology Platform:

Hydro One plans to leverage the existing technology platform where it is expected to be viable in the near future. Wireless network service providers continue to expand service into areas where wireless coverage does not exist today. It is Hydro One's intention to use the service providers' network growth to support further expansion of the existing technology platform to close the gaps in the Company's service territory.

Hydro One is also deploying a number of enhancements such as directional antennas, Global System for Mobile Communications ("GSM") meters and data collectors to its existing technology platform to improve its reach.

These enhancements will assist the Company to service a portion of its customers who are currently affected by the gaps in the communication infrastructure.

Alternative Technology Solution Development:

Hydro One believes that it will exhaust what is possible through its existing technology platform. There are areas of its service territory where the population density does not support a reasonable Return on Investment ("ROI") for commercial service providers to warrant wireless network coverage. Hydro One requires additional time to investigate and solution alternate technologies such as Worldwide Interoperability for Microwave Access ("WiMAX") and Power Line Carrier ("PLC") that do not rely on commercial network providers.

In 2006, Hydro One led a consortium of Canadian Provincial Utilities to acquire 30 MHz of spectrum from 1.8 GHz to 1.83 GHz with the help of Industry Canada for the sole purpose of operating the electrical grid. It is Hydro One's intent to utilize this spectrum in areas of insufficient coverage from commercial service providers where prudent.

Hydro One is also evaluating other solutions such as monthly drive-by meter reading collection in areas of extremely low density where PLC and WiMAX will not be economically viable.

These alternative technology solutions will further extend the reach of Hydro One's network to service a portion of the customers who are currently affected by gaps.

Ontario Energy Board (Board Staff) INTERROGATORY #1 List 3

Interrogatory

Preamble

Hydro One states in its application that "a solution that adequately addresses this gap is not expected until at least the end of 2012." Hydro One stated in its baseline plan (filed with the Board on July 6th, 2009) that it intended "to have adequate network build out to support 1.05 million customers on TOU billing by June 2011 with the rest being covered by end of 2011/early 2012."

Questions

a) Please describe the events, including timelines, which occurred since **July 2009** causing Hydro One to change the expected completion date for TOU implementation from end of 2011/early 2012 to the end of 2012.

Response

The referenced July 2009 timeline was based on preliminary information and since then Hydro One has gained more experience and added insights into the challenges of expanding our data transmission technology reach to these 150,000 meters.

Based on Hydro One's current estimates, a solution that adequately addresses the 150,000 RPP customers that are currently outside the reach of the Hydro One smart meter telecommunications infrastructure is not expected until at least the end of 2012. As the Company goes through its solution exploration, design, pilot and evaluation stages, it will learn more about the potential solutions. Hydro One will inform the Board if there is any material change in the project timeline.