

Burlington Hydro Inc.  
EB-2013-0115  
Proposed Settlement Agreement  
Attachment D.5  
Discussion of deployment of REX 1 meters in 2006-2009

## Summary

Burlington Hydro deployed REX1 meters in the period 2006-2009 when providing new service and to continue to provide service to its existing customers (e.g. to satisfy Measurement Canada reverification obligations, to replace malfunctioning meters). Due to supply issues conventional electromechanical meters were unavailable and the supply of equivalent 'dumb' electronic meters was constrained. Burlington Hydro elected to deploy REX1 meters, which are considered 'smart', and to operate them in 'dumb' mode.

## Discussion

All distributors own and operate a fleet of meters that is continually augmented to provide service to new customers and that is subject to 'change outs' (e.g., to support accuracy testing, to provide service upgrades, to replace meters that have failed or ceased to operate accurately).

The majority of Burlington Hydro's meter change outs are due to Measurement Canada's accuracy testing. In broad terms, meters are tested for accuracy through the reverification process based on when their 'seal' expires; expiration is related to age, meter technology, statistical analysis, deployment conditions and other factors. When Burlington Hydro acquires a meter it is entered into a Group prior to being deployed in the field, 'sealed' and, over time, a sample of the meters from the Group are removed from service for testing. If the measured accuracy of the sample is acceptable the Group's seal is extended; the period of the extension is determined by the observed accuracy and can be for as few as 2 years or as many as 8 years. The total number of meters sampled annually can vary, depending on the number of Groups that must be reverified in any year and the sizes of the Groups (for statistical reasons Groups of smaller size typically have a greater proportion reverified than do Groups of a larger size). As an example, in 2007 Burlington Hydro had 12 Groups of meters eligible for testing comprised of a total of 5,691 meters, plus an additional 733 meters that all required testing (because they were not explicitly included in any Group) while in 2008, it had 5 eligible Groups, totaling 3,605 meters. The remainder of Burlington Hydro's meter change outs are due to meter disputes, meter failure or customer service upgrades.

Burlington Hydro faced an unusual meter supply situation beginning around 2005. The government of Ontario had previously revised its policy on electricity commodity pricing to convert from postage rate pricing to Time of Use pricing. Implementing this policy required metering infrastructure changes, which commenced around 2006. Ontario's meter market also transitioned; while meter suppliers were increasingly making Smart Meters available they were simultaneously ceasing to offer conventional electromechanical meters (and running down their available supply) and managing their supply of substitutable 'dumb' electronic meters.

Burlington Hydro had an ongoing need to deploy new meters in the 2006-2009 period to satisfy customers' needs for new meters and to satisfy its obligations under the *Electricity and Gas Inspection Act*. Burlington Hydro had deployed its remaining inventory of conventional electromechanical meters prior to January 1, 2006 and, as of 2006, was deploying C1S meters (a 'dumb' electronic meter) for meter change outs and when attaching new customers. In May 2006, Burlington Hydro received its last delivery of 500 C1S meters; Burlington Hydro deployed the remaining C1S meters when performing meter change outs during 2006.

On January 10, 2006 Burlington Hydro took delivery of Smart Meters for the first time; specifically, 500 REX1 meters manufactured by Elster. These meters were deployed under a pilot project that was funded through the Third Tranche. No units remained in inventory as of December 31, 2006.

In 2007 Burlington Hydro placed an order for 4,000 REX1 meters in order to achieve favourable pricing. It took delivery of 2,500 REX1 meters that year that were deployed as follows:

- 799 were deployed to connect 'new' customers
- 1,343 were deployed as meter change outs.

As of the end of 2007, Burlington Hydro had 398 REX1 meters in inventory.

In 2008 Burlington Hydro took delivery of 1,500 REX1 meters and deployed them as follows:

- 626 were deployed to connect 'new' customers
- 1,292 were deployed as meter change outs.

As of the end of 2008, Burlington Hydro had exhausted its inventory of REX1 meters.

In 2009, prior to approval for mass deployment, Burlington Hydro purchased 200 network type REX1 meters in order to connect 'new' customers in a condominium; the preferred alternative, being REX2 network 12S meters had not been approved for use by Measurement Canada. As of the end of January 2009, Burlington Hydro had 0 REX1 meters in inventory.

In all instances where Burlington Hydro installed REX1 Meters between 2007 and 2009 the need to install meters was driven either by the need to connect new customers or the need to change out existing meters. In no instance was the installation of REX1 Meters between 2007 and 2009 an attempt by Burlington Hydro to intentionally advance the replacement of conventional meters with smart meters in its service territory.

The receipts of REX1 meters and their subsequent deployment throughout Burlington Hydro's licenced service area is provided in the table below.

Burlington Hydro - REX1 Meter Data

	Count
Year: 2006	
Opening	0
Additions	500
Deployment by Type	
CDM	500
New Connections	0
Meter Change Out	<u>0</u>
Closing	0
Year: 2007	
Opening	0
Additions	2,540
Deployment by Type	
CDM	0
New Connections	799
Meter Change Out	<u>1,343</u>
Closing	398
Year: 2008	
Opening	398
Additions	1,500
Deployment by Type	
CDM	0
New Connections	626
Meter Change Out	<u>1,272</u>
Closing	0
Year: 2009	
Opening	0
Additions	200
Deployment by Type	
CDM	0
New Connections	200
Meter Change Out	<u>0</u>
Closing	0
Summary 2006-2009	
2006 Opening	0
Additions	4,740
Deployment	4,740
2009 Closing	0
Deployment Details	
CDM	500
New Connections	1,625
Meter Change Out	2,615

\* BHI purchased REX1 Network Form 12S to deploy in a condominium.

In reviewing the data on the deployment of REX1 meters and the associated accounting Burlington Hydro discovered that the REX1 meters deployed under the Third Tranche CDM program were accounted for using Burlington Hydro's normal accounting policies; specifically, they were treated as a 'pooled' asset, like all other meters. As a result, the value of these meters was included in the balance that was transferred to the Stranded Meter account. Burlington Hydro recognizes that this amount should be removed from that account and has further reduced the Stranded Meter balance by \$44,061 (Exhibit 10, Tab 1, Schedule 75).