2012 ELECTRICITY DISTRIBUTION RATES

London Hydro Inc.

Application for Disposition and Recovery of Costs Related to Smart Meter Deployment

EB-2012-0187

STAFF SUBMISSION

June 12, 2012

INTRODUCTION

London Hydro Inc. ("London Hydro") is a licensed electricity distributor serving the City of London. London Hydro filed a stand-alone application (the "Application") with the Ontario Energy Board (the "Board"), received on March 24, 2012, seeking Board approval for the disposition and recovery of costs related to smart meter deployment, offset by Smart Meter Funding Adder ("SMFA") revenues collected from May 1, 2006 to April 30, 2012. London Hydro requested approval of proposed Smart Meter Disposition Riders ("SMDRs") and Smart Meter Incremental Revenue Requirement Rate Riders ("SMIRRs") effective May 1, 2012. The Application is based on the Board's policy and practice with respect to recovery of smart meter costs.[1]

The Board issued its Letter of Direction and Notice of Application and Hearing on April 18, 2012. The Vulnerable Energy Consumers' Coalition ("VECC") requested and was granted intervenor status and cost award eligibility. No letters of comment were received.[2] The Notice of Application and Hearing established that the Board would consider the Application by way of a written hearing and established timelines for discovery and submissions.

Board staff posed interrogatories to London Hydro on May 14, 2012, and VECC filed interrogatories on May 17, 2012. London Hydro filed its responses to all interrogatories on May 29, 2012.

This submission reflects observations and concerns which arise from Board staff's review of the record of the proceeding, including the Application and updates as provided in response to interrogatories.

THE APPLICATION

Approvals Sought

[1] *Guideline G-2011-0001*, dated December 15, 2011
[2] Response to Board staff IR #1.

In the Application filed on March 24, 2012 and updated on April 2, 2012, London Hydro applied for the following approvals:

- Smart Meter Disposition Riders (SMDRs) – An actual cost recovery rate rider of $(0.81) per metered customer per month for the Residential class and $(1.82) per metered customer per month for the General Service less than 50kW class for the period May 1, 2012 to April 30, 2013. These rate riders will refund the difference between the 2006 to December 31, 2011 revenue requirement related to smart meters deployed as of December 31, 2011 [plus interest on operations, maintenance and administration ("OM&A") and depreciation expenses] and the smart meter funding adder collected from June 1, 2006 to April 30, 2012 [and corresponding interest on the principal balance of SMFA revenues].
- Smart Meter Incremental Revenue Requirement Rate Riders SMIRRs – A forecasted cost recovery rate rider of $2.30 per metered customer per month for the Residential class and $5.10 per metered customer per month for the General Service less than 50kW class for the period May 1, 2012 to April 30, 2013.[3] These rate riders will collect the 2012 incremental revenue requirement related to smart meter costs to be incurred from January 1, 2012 to December 31, 2012.
- London Hydro is not requesting the recovery of Stranded Meter costs in this application. These meters continue to be included in rate base for rate-making purposes until London Hydro's next rebasing application in 2013.

Updated Evidence

In response to Board staff interrogatories, London Hydro made corrections for the following:

[3] The SMIRRs are designed to remain in effect until the utility next rebases its rates through a cost of service application. However, as London is scheduled to rebase its rates for the 2013 rate year, as confirmed in the Board's letter of January 26, 2012, the SMIRRs will only be in effect for one year.

- Corrected its deemed long-term debt capitalization from 50% to 55% (Board staff IR #9);
- Corrected the long-term debt rate for 2007 to 6.00% rather than 6.25% as approved in London Hydro's 2006 EDR rates application (Board staff IR # 9);
- Updated the amount of SMFA revenues by replacing forecasted amount for January 1, 2012 through to April 30, 2012 with actual cost ($852,800 vs actuals $892,163). (Board staff IR # 14); and
- Corrected the model so that interest on SMFA revenues is only calculated to April 30, 2012 (Board staff IR # 12).

In its response to Board staff IR # 14 and #8, London Hydro filed a revised smart meter model and class-specific SMDRs to reflect the corrections noted in Board staff IRs # 9 and 12.

Through interrogatories, VECC asked London Hydro to provide class-specific revenue requirements and associated SMDRs and SMIRRs. In response to VECC IR # 8, London Hydro stated that although it cannot reasonably accommodate the segmentation of expenditures into specific customer classes, and therefore class specific revenue requirements it had, as part of its Application, provided a basis for determining appropriate revenue requirements and resulting rate riders by customer class. These were described in London Hydro's Manager's Summary as follows:

- Return (deemed interest plus return on equity) and Amortization allocated between the customer classes based on the capital costs of the meters installed for each class;
- OM&A expenses allocated on the basis of the number of meters installed for each class; and
- PILs allocated based on the revenue requirement allocated to each class before PILs;

Board staff has no concerns with the allocation of costs proposed by London Hydro.

London Hydro proposed to allocate the SMFA revenue on the basis of the allocated revenue requirement.

In response to VECC IR # 8 and Board staff IR # 8(b) and 14(b), London Hydro provided Smart Meter Rate Adders Revenue by customer class. The revenue requirement was subsequently recalculated to take into account class specific SMFA revenues.

The re-calculated class-specific SMDRs and SMIRRs calculated as a result of responses to Board staff and VECC interrogatories are summarized below:

Table 1: Original and Revised SMDRs and SMIRRs

Class	SMDR ($/month		SMIRR ($/month)	
	Original	Board Staff IR #14 and VECC#8	Original	Board Staff IR #14 and VECC#8
Residential	$(0.81)	$(1.16)	$2.30	$2.30
GS < 50 kW	$(1.82)	$1.96	$5.10	$5.10

Board staff notes that it is not clear whether London Hydro is adopting the re-calculated class-specific SMDRs provided in response to Board staff IR # 14. Board staff suggests that London Hydro should confirm its proposal in its reply submission. In the absence of further information, Board staff submits that the re-calculated class-specific SMDRs provided in response to Board staff IR # 14 are more reflective of cost causality, are consistent with the methodology approved by the Board in its Decision for PowerStream (EB-2011-0128), and therefore should be adopted by the Board.

Prudence of Smart Meter Costs

London Hydro provided the following meter cost:

	Residential	GS < 50 kW	Total
Installations:			
Installed by December 31, 2010	132,540	4,897	137,437
Installed by December 31, 2011	2,118	6,882	9,000
Total Up to December 31, 2011	134,658	11,779	146,437
Installed by April 30, 2012	211	202	413
Total	134,869	11,981	146,850

Capital Costs:	
Expenditures upto December 31, 2010	$ 21,261,642
Actual Expenditures for 2011	$ 3,141,854
Total Up to December 31, 2011	24,403,496
Projected Expenditures for 2012 (upto April 3oth)	$ 511,307
Total	$ 24,914,803

OM&A Costs:	
Expenditures upto December 31, 2010	$ 643,940
Actual Expenditures for 2011	$ 162,771
Total Up to December 31, 2011	806,711
Projected Expenditures for 2012 (upto April 30th)	$ 746,000
Total	$ 1,552,711

Total Costs Per Meter	
Capital Costs	$ 169.66
OM&A Costs	$ 10.57
Total	$ 180.24

Board staff takes the position that these per meter costs are reasonable, supported by the documentation, and are well within the ranges that the Board has seen for most utilities serving urbanized areas in the early stages of smart meter deployment[4].

[4] In Appendix A of the Board's Decision with Reasons EB-2007-0063, issued August 8, 2007, with respect to the combined smart meter proceeding, the Board documented the per meter cost for the 13 applicant utilities, including Horizon, then authorized for smart meter deployment. For "urban" distributors for which data was available, the per meter costs ranged from $123.59 to $189.96The cost information in the combined smart meter proceeding is informative, but reflects an early stage of smart meter deployment, and so must be used with caution. However, similar patterns and ranges for utilities serving urban areas as those observed in Appendix A of the Decision with Reasons EB-2007-0063 have been observed in more recent cases in which smart meter costs have been considered.

On October 26, 2010 the Board issued a letter to all licensed distributors requiring them to file information about smart meter investments on a quarterly basis. On March 3, 2011, the Board issued the Monitoring Report, Smart MeterInvestment – September 2010 ("the Monitoring Report").
The Monitoring Report summarized the total smart meter related investments of 78 distributors, as of September 30, 2010, and showed an average cost of $226.92 per smart meter. Board staff observes that London Hydro's costs are below the average costs identified in the Monitoring Report. Given London Hydro's documented procurement practices, discussed in the section that follows, and the fact that London Hydro's per meter costs do not exceed values shown in the Monitoring Report, Board staff takes no issue with the nature and quantum of London Hydro's reported per meter costs.

London Hydro showed total OM&A cost of $1,552,711. Board staff notes that this amount is net of savings realized from reductions in meter reading expenses. In its Application London Hydro identified meter reading reductions of $330,000 in 2011 and 2012 and requested that these savings be credited to London Hydro's customers at the same time as the implementation of the requested rate riders[5]. Board staff supports the inclusion of meter reading savings in the calculation of the SMDRs and SMIRRS.

Further, Board staff observes that the revised proposed SMIRR is $2.30/month (from Board staff IR # 14) for Residential customers. The SMIRR is, by design, a proxy for the incremental increase in distribution rates to recover the annualized capital-related and operating costs of smart meters as if they were in rate base and operating expenses. The revised proposed SMIRR is below the range of $3 to $4 that was originally estimated (albeit on limited and preliminary data) in the Board's Report on smart meters in 2005.[6]

[5] Application Evidence, p. 72
[6] *Smart Meter Implementation Plan - Report of the Board To the Minister*, January 26, 2005, pg. vi,
http://www.ontarioenergyboard.ca/documents/communications/pressreleases/2005/press_release_sm_implementationplan_260105.pdf

Finally, Board staff notes London Hydro's leadership in the assembly of a Smart-meter procurement consortium and the creation of a comprehensive Request for Proposal document that led to the development of the London Hydro RFP process, which was recognized under O.Reg. 427/06. London Hydro was authorized to deploy smart meters under O. Reg. 427/06 as amended by O.Reg. 238/08 in accordance with the London Hydro RFP process. It has complied with the regulation and the London Hydro RFP process for the procurement of smart meters and associated equipment and for services to install and operate the smart meters and associated equipment; as such, Board staff considers that the documented costs are prudent with the exception of $12,800 capital cost associated with 25 nominal meters beyond minimum functionality discussed below.

Cost beyond Minimum functionality

In its Application London Hydro included estimated capital cost of $12,800 for 25 polyphase meters for the GS>50 kW customer class, which are cost beyond minimum functionality. London Hydro noted that these meters are outside the scope of the Ministry of Energy's Functional Specification. However, London Hydro's RFP includes a requirement that the AMI system include functionality for transporting meter data from those meters. London Hydro stated that as such, it intends to procure 25 of these meters for the purpose of system acceptance testing. London Hydro further stated that these meters have not been procured to date because there is a known issue that won't be resolved until Version 3.x of the FlexNet RNI software, is released which is expected to be in the summer of 2012.[7]

Board staff notes that London Hydro's smart meter initiative was largely completed (99.96% for residential and 98.47% for GS<50kW customer classes) at the time of filing this Application. Board staff submits that the proposed 25 meters for the GS>50 kW customer class are outside of the scope of London Hydro's smart meter initiative as noted by London Hydro. Further, London Hydro has not provided sufficient evidence to justify the inclusion of meters for this pilot

[7] Application Evidence, p. 69

project for the GS>50 kW class, especially since London Hydro has not been able to determine a procurement date as of yet.

Board staff also notes that the cost allocation methodology approved in the recent smart meter cost recovery decisions is based on the principle of cost causality. Board staff submits that the inclusion of these costs, although nominal, for meters for the GS>50 kW customer class in the SMIRRs to be paid for by Residential and GS < 50 kW customers would constitute cross-subsidization between rate classes.

For these reasons, Board staff submits that these expenses should be removed from the revenue requirement calculation for determining the SMIRRs.

Inclusion of 2012 Costs and Demand for Customer Growth

Board staff notes that London Hydro has included costs for smart meters forecasted to be deployed in 2012 due to customer growth. London Hydro has forecasted 211 new Residential smart meters for 2012 and 202 new GS < 50 kW customers. London Hydro also included costs for TOU implementation.

This approach is different than what the Board approved in recent smart meter cost recovery applications. In PowerStream's 2011 smart meter application (EB-2011-0128), the distributor included costs to the end of 2011. In Kenora Hydro's 2011 cost of service application (EB-2010-0135), smart meter costs to the end of the 2010 test year were included in the SMDR, and capital and operating costs for 2011 were included in the test year rate base and revenue requirement. Similarly, in Hydro Ottawa's 2012 cost of service application (EB-2011-0054), only costs to the end of 2011 were included in the determination of the SMDR.

Board staff notes that the capital cost for the 413 new meters is $28,900 which is relatively small and does not have a significant impact on the calculation of the SMIRRs. Board staff does not oppose this approach since London Hydro has been consistent in matching costs with demand. This is so since on sheet 9 of the model, London Hydro factored the new growth in 2012 in calculating the average annual number of metered customers in the Residential and GS < 50 kW classes used as the denominator for the SMDR and SMIRR. While the SMIRR may be marginally higher by including the costs of the new meters, the SMDR will be marginally lower as the denominator is increased due to customer growth.

Board staff submits that both the approach approved in PowerStream and in previous cost of service applications, including costs only to the end of 2011, and the current approach of London Hydro that includes costs for 2012, are legitimate as long as the costs and the demand (number of customers) are for the same period and the unaudited costs for 2011 and 2012 represent less than 10% of the total costs of the program. In the long run, both approaches should be equivalent. Due to extensions granted for TOU implementation, Board staff suspects that other utilities will include costs for 2012, including costs for additional smart meters due to growth. Therefore, Board staff takes no issue with this approach.

Other Matters

London Hydro has also responded to interrogatories regarding the net book value of stranded conventional meters, and has an estimated net book value, including net salvage revenues, of $3,153,415 as of December 31, 2012.

In response to VECC IR # 2, London Hydro has discussed operational efficiencies and cost savings resulting from smart meter deployment. London Hydro notes that the majority of the benefits associated with smart-metering, are enhanced customer service as opposed to cost savings. London Hydro also noted that the exception is the cost savings attributable to the elimination of contract meter readers for on-cycle and off-cycle meter reads which were taken into account in this proceeding.

Board staff submits that London Hydro should address stranded meter costs in its next cost of service application.

Foregone SMIRR Revenues for the Period May 1 to Implementation Date

London Hydro requested, in the event the Board is unable to issue its Decision and Order for both prudence review of Smart Meter costs and establishment of Smart Meter recovery rate riders effective May 1, 2012, that the existing SMFA of $1.46 per metered customer per month be continued until such time as this Application is approved by the Board.

Board staff notes that London Hydro's Decision and Order EB-2011-0181 stated:

> The Board will not approve the continuation of London Hydro's current SMFA beyond the current expiry of April 30, 2012. The Board is of the view the relevant metric to consider with respect to whether it is appropriate to extend a SMFA is the date at which smart meter deployment was or will be substantially complete. In this case, smart meter deployment was 99.84% complete by the end of 2011. The SMFA was designed to fund the prospective deployment of smart meters with minimum functionality. The Board believes that the current expiry date (April 30, 2012) of the current SMFA best aligns the interests of ratepayers and the utility, by balancing potential rate volatility with the need to ensure that monies collected from ratepayers serve the intended purpose.

As the Board has not rendered a decision in this case regarding the continuation of the existing SMFA and as the April 30, 2012 sunset date has passed, London Hydro should have ceased to collect revenue though the SMFA as of April 30, 2012. The issue now is to account in the SMIRR for the foregone revenue between May 1, 2012 and the implementation of the Board's decision in this proceeding. Board staff notes that in Orangeville Hydro's smart meter application, the Board, in its decision, stated that:

> In developing its draft Rate Order, Orangeville is directed to establish the SMDRs based on an 11-month recovery period to April 30, 2013 and to accommodate within the SMDR the applicable revenue requirement amounts related to the month of May.[8]

[8] Decision and Order, EB-2012-0039, May 24, 2012, page 8

Board staff submits that the same approach should be adopted by the Board for London Hydro.

- All of which is respectfully submitted -