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Ontario

BY E-MAIL

June 29, 2012

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto ON M4P 1E4

Dear Ms. Walli:

Re: Board staff Submission
Oakville Hydro Electricity Distribution Inc.
Application for 2012 Smart Meter Cost Recovery effective May 1, 2012
Application Board File Number EB-2012-0193

In accordance with the procedure documented in the Notice of Application and Hearing, please find attached Board staff's submission in the above proceeding with respect to Oakville Hydro Electricity Distribution Inc.'s application for rate riders to recover smart meter costs.

Sincerely,

Original Signed By

Stephen Vetsis
Analyst - Applications

Attachment

2012 ELECTRICITY DISTRIBUTION RATES

Oakville Hydro Electricity Distribution Inc.

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

EB-2012-0193

STAFF SUBMISSION

June 29, 2012

INTRODUCTION

Oakville Hydro Electricity Distribution Inc. ("Oakville Hydro") filed a stand-alone application ("the "Application") on April 3, 2012, seeking Board approval for the final 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. Oakville Hydro requested approval of proposed Smart Meter Disposition Riders ("SMDR") and Smart Meter Incremental Revenue Requirement Rate Riders ("SMIRR") 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 May 2, 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 and VECC posed interrogatories to Oakville Hydro on June 1, 2012. Oakville Hydro filed its responses to Board staff and VECC interrogatories on June 15, 2012.

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

THE APPLICATION

Approvals Sought

In the Application as filed on April 3, 2012, Oakville Hydro applied seeking the following approvals:

[1] *Guideline G-2011-0001: Smart Meter Funding and Cost Recovery – Final Disposition*, issued on December 15, 2011.
[2] Response to Board staff IR #1.

- **Smart Meter Disposition Rate Rider:**

  Oakville Hydro proposed a class-specific SMDR credit of $0.21 per month for each residential customer and a credit of $0.57 per month for each GS < 50 kW customer. This rate rider would be in effect from May 1, 2012 to April 30, 2014 and represents a charge to customers resulting from the difference in revenues collected from customers from 2006 to April 30, 2012 and associated interest, and the deferred revenue requirement from 2006 to December 31, 2011.

- **Smart Meter Incremental Revenue Requirement Rate Rider**

  Oakville Hydro proposed a class-specific SMIRR of $2.49 per month for each residential customer and $7.25 per month for each GS < 50 kW customer. This rate rider would be in effect from May 1, 2012 until the effective date of Oakville Hydro's rate order arising from Oakville Hydro's next scheduled cost of service rate application (scheduled for 2014 rates). The SMIRR rate rider reflects the incremental annual revenue requirement related to smart meter costs to be incurred.[3]

Updated Evidence

In its responses to Board staff interrogatories, Oakville Hydro made or confirmed corrections to its smart meter model for the following:

- Updated forecasted capital costs in 2012 to $206,700 from $200,000 to reflect more recent costing information (Board staff IR #6);
- Corrected the smart meter model to remove the calculation of carrying charges on smart meter funding adder revenues from May 1, 2012 through December 31, 2012 (Board staff IR #18); and
- Updated the smart meter model to calculate depreciation expense for capital costs incurred in 2010 (Board staff IR #19).

[3] Oakville Hydro's Application, April 3, 2012, pages 24 and 25.

Oakville Hydro filed a revised smart meter model to reflect the corrections and updates noted in the interrogatories referenced above. A summary of the SMDR and SMIRR proposed in the Application and the updates provided as a result of Oakville Hydro's responses to interrogatories are summarized in the table below.

Table 1: Original and Revised SMDRs and SMIRRs

Class	SMDR ($/month, for 12 months)		SMIRR ($/month)	
	Original	Revised	Original	Revised
Residential	$(0.21)	$(0.45)	$2.49	$2.49
GS < 50 kW	$(0.57)	$2.61	$7.25	$7.33

Prudence of Smart Meter Costs

The following table summarizes Oakville Hydro's overall per meter costs, costs above minimum functionality and projected 2012 capital and OM&A expenses:

Cost per installed Smart Meter

	Total Cost	Cost per Meter
Overall Capital Costs (including 2012 projected)	$10,331,152	$162.10
Overall OM&A Costs (including 2012 forecast)	$1,691,348	$26.54
Total Cost Per Smart Meter	**$12,022,500**	**$188.64**
Overall Capital Costs Beyond Minimum Functionality (including 2012 projected)	$227,905	$3.58
Overall OM&A Costs Beyond Minimum Functionality (including 2012 projected)	$363,660	$5.71
Total Costs Beyond Minimum Functionality	**$591,565**	**$9.29**
Total Number of Smart Meters	63,734	-
Forecast 2012 Smart Meter Installations	0	-
Incremental Capital 2012 projected	$200,000	-
Incremental OM&A 2012 projected	$585,147	-

Sources: Smart Meter Model, Sheet 2, as filed on June 15, 2012 and
Response to VECC staff interrogatory #1, filed on June 15, 2012

Board staff observes that these overall per meter costs are within the ranges of per meter costs that the Board has seen for most utilities at the early stages of

smart meter deployment.[4] In response to Board staff IR #15, Oakville Hydro provided its average capital costs per meter for the residential and GS < 50 kW classes. These costs are summarized in the table below.

Class	Number of Meters	Capital Cost per Meter	Total (Capital + OM&A) Cost Per Meter
Residential	58,720	$136.62	$163.16
GS < 50 kW	5,014	$460.48	$487.02

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 Meter Investment – September 2010 ("the Monitoring Report").[5] 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 Oakville Hydro's costs are in line with the average costs identified in the Monitoring Report.

Board staff notes that the cost levels reported by Oakville Hydro for residential meters are in line with the range of costs previously seen by the Board in prudence review applications, as well as costs documented in the combined smart meter proceeding (EB-2007-0063). With respect to GS<50 kW smart meters Board staff notes that the available cost information was limited at the time of the combined proceeding. In other smart meter prudence review applications before the Board, GS < 50 kW smart meters have, typically, shown per meter costs approximately 2 to 2.5 times higher than the average residential smart meter. While Oakville Hydro's GS < 50 kW per meter costs are greater

[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 then authorized for smart meter deployment. For "urban" distributors for which data was available, the per meter costs ranged from $123.59 to $189.96, while Hydro One Networks' costs were estimated at $479.47.

[5] http://www.ontarioenergyboard.ca/OEB/Industry/Regulatory+Proceedings/Policy+Initiatives+and+Consultations/Smart+Metering+Initiative+(SMI)/Smart+Meter+Deployment+Reporting#reports

than 2.5 times the cost of residential meters, Board staff notes that a significant portion (i.e. approximately 14%) of Oakville Hydro's GS < 50 kW customers have more expensive meter configurations (e.g. A3TL, A3RL and GE KV2c+). Given the service requirement for more expensive meters for a significant number of customers in the GS < 50 kW class and the fact that Oakville Hydro's overall costs per meter for smart meter deployment are below the averages shown in the Monitoring Report, Board staff takes no issue with the above average costs per meter for customers in the GS < 50 kW class.

Board staff observes that Oakville 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 complied with this 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.

Time of Use Pricing Pilot Project

In the Application, Oakville Hydro requested approval to recover costs associated with the implementation of a pilot project involving Time of Use ("TOU") electricity prices. The pilot followed the consumption patterns of residents in three condominium buildings in Oakville as they changed from bulk metering to individual metering and billing under tiered RPP prices and subsequently to individual metering and billing under TOU RPP prices. The Board approved the pilot on December 1, 2006 (EB-2006-0306) provided that: an independent third-party analysis was completed of the results; that Oakville Hydro consult with Board staff before the independent analysis was carried out in order to ensure consistency with the analytical approach used by the Board; and that Oakville Hydro agree to share the results from the proposed pilot project. On April 3, 2008, Oakville Hydro filed the third party report completed by Navigant Consulting with the Board.

In response to Board staff IR #3a, Oakville Hydro noted that it had included $24,041 in OM&A expenses for recovery of the costs incurred in the completion

of Navigant's third party review of the TOU pilot. Oakville stated that, as the study was directly related to smart meter technology it had recorded those costs in the smart meter OM&A variance account (1556) and was seeking approval for those costs in the Application.

In response to Board staff IR #3b, Oakville Hydro stated the following when asked to provide a summary of its discussions with Board staff related to the TOU pilot project:

> Unfortunately, the regulatory staffs that were key contacts for the discussions of this pilot project with Board staff are no longer with the Oakville Hydro. Reference is made to Oakville Hydro's submission to the Board on April 3, 2008, "Oakville Hydro has consulted with Board staff before the independent analysis referenced above was carried out in order to ensure consistency with the analytical approach being used by the Board" in support of the existence of such discussions, however, a summary is not available.

Despite the fact that Oakville Hydro was unable to provide a summary of its discussions with Board staff regarding the TOU pilot project, Board staff sees no reason why the Board should not approve recovery of these costs at this time and takes no issue with the nature and quantum of the costs associated with Oakville Hydro's TOU pilot project.

Cost Allocation Methodology

In its Application, Oakville Hydro proposed class specific fixed charge SMDRs and SMIRRs for the residential and GS < 50 kW customer classes. In response to Board staff IR #14, Oakville Hydro confirmed that it used the following cost allocation methodology:

- Return (deemed interest plus return on equity) and Amortization were allocated based on the smart meter capital costs for each rate class;
- OM&A expenses were allocated based on the number of installed smart meters for each rate class;

- Payments in lieu of taxes (PILs) were allocated based on the revenue requirement allocated to each class before PILs; and
- Smart Meter Funding Adder revenues, including carrying charges, were allocated based on actual amounts collected from each class. Revenues collected from the GS > 50 kW class were allocated equally between the residential and GS < 50 kW classes.

Oakville Hydro noted that the cost allocation methodology proposed in the Application was identical to the approach proposed by PowerStream in its 2012 smart meter cost recovery application (EB-2011-0128). In response to VECC IR #10c, Oakville Hydro completed a separate smart meter model by rate class including updated SMDR and SMIRR calculations for each rate class. In response to VECC IR #10d, Oakville Hydro stated:

> Oakville Hydro has re-calculated the SMDR and SMIRR rate riders on full cost causality by rate class by completing a separate smart meter revenue requirement model by rate class in response to part (c) of this interrogatory. Oakville Hydro notes that this methodology results in the allocation of a larger portion of the SMDR credit to the Residential rate class than the methodology proposed by PowerStream in EB-2011-0128 which allocated the Smart Meter True-up in proportion to the revenue requirement calculated for each class.
>
> The two separate models reflect the difference between the revenue requirement for each rate class and the revenues collected from each rate class through the smart meter funding adder. Oakville Hydro suggests that this method of calculating the SMDR reflects full cost causality and, as such, is a more reasonable approach.

Board staff submits that cost causality should be the guiding principle when allocating costs to each class. Board staff notes the revised cost allocation methodology proposed by VECC and accepted by Oakville Hydro would be consistent with the cost allocation methodology approved by the Board in PowerStream's 2012 smart meter cost recovery application (EB-2011-0128).

Board staff submits that Oakville Hydro's revised cost allocation methodology, reflected in the updated SMDR and SMIRR calculations provided in Table 1 above, is appropriate.

Treatment of 2012 Costs

Oakville Hydro included estimated capital expenditures of $200,000 and estimated OM&A expenditures of $585,147 for 2012 in the smart meter model. In response to Board staff IR #16a, Oakville Hydro identified which of those costs were for ongoing activities and which were expected to be one-time expenditures in 2012 only. The table provided by Oakville Hydro in response is reproduced below.

2012 Smart Meter Costs

Capital Costs	On-going Costs	One-time Costs (Annualized)	Total	Description
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.	200,000		200,000	System Upgrades (CIS in 2012, ODS in 2013)
Total Smart Meter Capital Costs	200,000		200,000	
OM&A Expenses Related to Minimum Functionality				
2.2.1 Maintenance	138,775		138,775	External: RNI Maintenance
2.3.2 Software Maintenance (may include maintenance support, etc.)	6,120		6,120	External Security Audit
	121,728		121,728	Incremental Staff (AMCC Support)
2.5.1 Business Process Redesign	19,220	44,260	63,480	Incremental Staff
		80,000	80,000	External Consultants
2.5.6 Other AMI Expenses	116,794		116,794	External: ODS Management
Total Other AMI OM&A Costs Related to Minimum Functionality	402,637	124,260	526,897	
2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.	13,250		13,250	Incremental Staff: Ongoing communications costs
		45,000	45,000	External: Consulting fees: MDM/R integration, CIS upgrades
Total OM&A Costs Beyond Minimum Functionality	13,250	45,000	58,250	
Total Smart Meter OM&A Costs	415,887	169,260	585,147	

Source: Responses to Board staff interrogatories, page 40, as filed on June 15, 2012

In response to Board staff interrogatory #16a, Oakville Hydro confirmed that the OM&A costs identified as one-time costs have been amortized over the two-year period before Oakville Hydro's next scheduled cost of service application.

On page 19 of the Application, Oakville Hydro stated that it will incur costs of $143,480 for the implementation of a business process redesign project in 2012. In response to Board staff IR #13b, Oakville states:

> Due to the introduction of smart meters and TOU billing, the technology has greatly changed the landscape of the meter to bill process. As a mandate of the smart meter implementation project, Oakville Hydro must now integrate its CIS system with various other AMI systems including the AMCC, ODS, and MDM/R. These systems have introduced additional complexities into this business, along with the requirement to manage the vast amount of data that accompanies smart meters. With the stabilization of Oakville Hydro's AMI systems nearing completion, Oakville Hydro began the business process redesign project in an effort to resolve the manual inefficiencies that have arisen as a result of smart meters and TOU billing.

In response to Board staff IR #6, Oakville states the following regarding the $200,000 in forecasted capital expenditures for 2012:

> In the remainder of 2012, Oakville Hydro expects to complete a CIS upgrade. The upgrade is required, as there have been a number of enhancements to the CIS since the introduction of smart meters and TOU billing. These enhancements are directly attributed to the introduction of smart meters, interval (TOU) meter data and integration with the provincial MDM/R.
>
> Along with the CIS upgrade, Oakville Hydro will be looking to install a number of modules to its CIS, which will serve to enhance the efficiencies of the system. These tools will provide querying capabilities within the CIS, specific to smart meters and TOU data.

> To date, of the capital costs outlined above, the database upgrade has been implemented at a cost of $31,500. The remainder of the projects are scheduled over 2012.

Board staff accepts the reasoning and need for the forecasted 2012 costs requested for recovery by Oakville Hydro. Board staff notes that Oakville Hydro has provided audited costs to December 31, 2011 and that the unaudited costs included in the SMIRR represent less than 10% of the total costs sought for recovery. Board staff takes no issue with Oakville Hydro's proposed business process redesign project nor with its proposal to recover the forecasted costs for 2012 through the SMIRR. Board staff notes that the table summarizing Oakville Hydro's forecasted 2012 costs, shown above, indicates an ODS upgrade in 2013. When describing the forecasted $200,000 in capital costs for 2012 in response to Board staff IR #6, Oakville Hydro did not mention an ODS upgrade. Board staff submits that Oakville Hydro should confirm that the $200,000 of capital costs are for 2012 only. If Oakville Hydro has included costs for ODS upgrades scheduled for 2013, then these capital costs should be removed as they are out of period.

Board staff notes that the 2012 costs in the smart meter model form the basis of the calculation for the annualized incremental revenue requirement that is recovered through the SMIRR. Board staff notes that the SMIRR is to be in effect until the distributor's next cost of service application and, as such, one-time OM&A expenditures should not be included in its calculation. Though Oakville Hydro is scheduled to file its cost of service application for 2014 rates, Board staff takes no issue with Oakville Hydro's inclusion of one-time OM&A expenses in the calculation of the SMIRR as it has included annualized amounts that are amortized over two years.

On Sheet 2 of the Smart Meter Model, Oakville Hydro has not provided the number of forecasted smart meter installations for the residential and GS < 50 kW customer classes for 2012 and has forecasted costs in the SMIRR for smart meters installed as of December 31, 2011. This is similar to the approaches taken in PowerStream's 2011 smart meter application (EB-2011-0128), Kenora Hydro's 2011 cost of service application (EB-2010-0135) and Hydro Ottawa's

2012 cost of service application (EB-2011-0054). As Oakville Hydro has not included forecasted costs for activities related to customer growth in 2012 (e.g. capital costs for the installation of new smart meters), Board staff takes no issue with Oakville Hydro's customer numbers as the costs and the demand (number of customers) are for the same period.

Other Matters

In response to Board staff IR #2, Oakville Hydro stated the following with respect to its estimate net book value of stranded meter costs as of December 31, 2013:

> Oakville Hydro transferred its stranded meters to the deferral sub account 1555 May 2010. The net book value is $6,145,034 which is expected to remain unchanged through to December 31, 2013.

Oakville Hydro is proposing not to dispose of stranded meters at this time, but to deal with disposition in its next rebasing application, scheduled for 2014 rates. Board staff notes that, based on the settlement agreement from its last cost of service application (EB-2009-0271), it is unclear whether or not Oakville hydro is currently collecting depreciation expense for its stranded meters through its base rates. In its response to Board staff IR #2, Oakville Hydro has stated that it has not continued to amortize the net book value of its stranded meter costs and is not expecting to do so through the end of December 31, 2013. Oakville Hydro will recover the amortization on its smart meter capital through the SMDRs and SMIRRs approved in this proceeding.

Board staff notes that not taking into account the depreciation expense on stranded conventional meters that continue to be recovered in existing Board-approved distribution rates means that Oakville Hydro's proposal would over-recover the depreciation expense (effectively a recovery of the original invested capital) on the stranded conventional meters. If the depreciation expense on stranded meters is currently incorporated in Oakville Hydro's base rates, Board staff submits that the net book value the stranded meters should continue to be amortized until Oakville's next cost of service application where the residual balance will be disposed and recovered through an appropriate rate rider, as per

Guideline G-2011-0001, and consistent with the Board's policy and practice in other applications to date.

In response to VECC IR #9, Oakville Hydro discussed operational efficiencies and cost savings resulting from smart meter deployment. Oakville Hydro noted that the greatest cost savings it has experienced was a reduction in meter reading expenses as a result of the remote meter reading capabilities of smart meters. In response to Board staff IR #13, Oakville Hydro noted some challenges with respect to systems limitations and challenges in integrating new CIS billing functions with its existing business processes. Oakville Hydro stated that these challenges have resulted in the need for manual processes and inefficient workarounds. Oakville Hydro stated its plans to implement upgrades to its CIS system and undergo a further business process redesign in 2012 to achieve further efficiencies. Board staff takes no issue with Oakville Hydro's explanations at this time, and recognizes that it may take time for further savings to be recognized as Oakville Hydro, and the utility sector generally, become more accustomed to customer and operational data that smart meters and TOU pricing provide.

Board staff submits that Oakville Hydro should be prepared to address both the stranded meters, including the treatment of depreciation expense, and any operational efficiencies further in its 2014 cost of service application.

_____

Subject to the above comments and clarifications requested, Board staff submits that Oakville Hydro's Application is compliant with Guideline G-2011-0001, reflects prudently incurred costs and is consistent with Board policy and practice with respect to the disposition and recovery of costs related to smart meter recovery.

- All of which is respectfully submitted -