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Ontario

BY E-MAIL

November 13, 2012

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

Dear Ms. Walli:

Re: Kingston Hydro Corporation
Smart Meter Cost Recovery
Board Staff Submission
Board File No. EB-2012-0310

Please find attached Board staff's submission on the rate application for the disposition and recovery of costs related to smart meter deployment filed by Kingston Hydro Corporation on August 24, 2012. This document is also being forwarded to Kingston Hydro Corporation and to registered parties to this proceeding.

Yours truly,

Original Signed

Kelli Benincasa

Encl.

2012 ELECTRICITY DISTRIBUTION RATES

Kingston Hydro Corporation

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

EB-2012-0310

BOARD STAFF SUBMISSION

November 13, 2012

INTRODUCTION

Kingston Hydro Corporation ("Kingston") is a licensed electricity distributor serving approximately 27,000 customers in the city of Kingston. Kingston filed a stand-alone application (the "Application") with the Board on August 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. Kingston requested approval of proposed Smart Meter Disposition Riders ("SMDRs") and Smart Meter Incremental Revenue Requirement Rate Riders ("SMIRRs") effective January 1, 2013. The Application is based on the Board's policy and practice with respect to recovery of smart meter costs.[1]

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 filed on August 24, 2012, Kingston sought the following approvals of the Board:

- A SMDR of $0.80 per Residential customer per month and $0.65 per General Service less than 50kW ("GS < 50 kW") customer per month for the period from January 1, 2013 to December 31, 2014. These rate riders will collect the difference between the revenue requirement deferred from 2006 to December 31, 2011 related to smart meters deployed as of December 31, 2011 (plus interest on operations, maintenance and administration ("OM&A") and depreciation expenses) and the SMFA

[1] Current guidelines and filing requirements were issued by the Board in *Guideline G-2011-0001: Smart Meter Funding and Cost Recovery – Final Disposition* ("Guideline G-2011-0001"), issued December 15, 2011.

revenues collected from May 1, 2006 to April 30, 2012 (and corresponding interest on the principal balance of SMFA revenues); and

- A forecasted SMIRR of $2.22 per Residential customer per month and $2.22 per GS < 50 kW customer per month for the period January 1, 2013 to April 30, 2015. These rate riders will collect the incremental revenue requirement related to smart meter costs until Kingston rebases its rates through a cost of service application, expected to be for 2015 rates effective May 1, 2015.

Updated Evidence

In response to Board staff and Vulnerable Energy Consumers Coalition ("VECC") interrogatories, Kingston made the following updates to its Application:

- Kingston updated the model to account for a change in quote to perform a major upgrade of the software and hardware for the Regional Network Interface from $120,000 to $93,000 (VECC IR #5 b);
- Kingston confirmed the tax rates correspond to the rates for taxes/PILS actually paid by Kingston in each of the historical years and updated the model for 2012 and 2013 forecasted tax rates (Board staff IR # 9);
- Kingston updated the model to reflect the correct values of capital parameters per the Board's Decision EB-2010-0136 with respect to the approved cost of capital in Kingston's 2011 cost of service application for years 2012 and 2013 (Board staff IR #10 a and b);
- Kingston allocated the residual SMFA revenues and interest collected from other metered customer classes (i.e., GS 50-4999 kW and Large Use) equally to the Residential and GS < 50 kW classes for the purposes of calculating the SMDRs (Board staff IR # 13 a); and
- Kingston revised Sheet 8A of the smart meter model to reflect the depreciation expense that equals the amounts reported on Sheet 4. (Board staff IR #15 b)

In its response to Board staff interrogatories, Kingston filed a revised smart meter model to reflect the updates noted in the responses to Board staff and VECC's interrogatories referenced above.

The revised SMDRs and SMIRRs calculated as a result of responses to Board staff and VECC's interrogatories are summarized below:

Table 1: Original and Revised SMDRs and SMIRRs

Class	SMDR ($/month, from January 1, 2013 to December 30, 2014)		SMIRR ($/month, from January 1, 2013 to April 30, 2015)	
	Original	Revised	Original	Revised
Residential	$0.80	$1.12	$2.22	$2.79
GS <50 kW	$0.65	$0.97	$2.22	$2.79

Board staff notes that the GS < 50 kW SMDR is lower than the residential SMDR which is counterintuitive. Due to more expensive polyphase meters being used for a larger fraction of the GS <50 kW class, the installation cost and the deferred revenue requirement should be higher on a per meter basis. Board staff also notes that Kingston has not filed class-specific SMIRR's. These matters are further addressed below.

Prudence of Smart Meter Costs and Minimum Functionality

Based on the costs provided by Kingston in the revised smart meter model, Board staff notes that the total cost per meter works out to an average of $214.11 (capital and OM&A) or $194.80 (capital only). The Board's report, "Sector Smart Meter Audit Review Report", dated March 31, 2010, indicates a sector average capital cost of $186.76 per meter (based on 3,053,931 meters (64% complete) with a capital cost of $570,339,200 as at September 30, 2009). The review period was January 1, 2006 to September 30, 2009. The average total cost per meter (capital and OM&A) is $207.37 (based on 3,053,931 meters (64% complete) with a total cost of $633,294,140 as at September 30, 2009).

The Board followed up on this review on October 26, 2010 and issued a letter to all distributors requiring them to provide information on their smart meter investments on a quarterly basis. The first distributors' quarterly update represented life-to-date investments in smart meter implementation as of

September 30, 2010 and as of this date, the average total cost per meter was $226.92.[2]

Board staff notes that Kingston's total cost per meter of $214.11 is below the provincial average of $226.92.

Board staff also observes that the proposed SMIRR is $2.79/month for Residential customers and General Service customers < 50 kW. 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. This is within 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.[3] The Board has continued to use the $3 to $4 range as a bench-mark for assessing the appropriateness of the SMIRR and hence the smart meter costs underlying the rate.

Board staff further observes that Kingston was authorized to deploy smart meters under O.Reg 427/06 as amended by O.Reg 238/08 in accordance with the London Hydro Request for Proposal ("RFP") process. Kingston noted that the participation in the London Hydro RFP process allowed distributors to aggregate the number of meters making the process attractive to bidders and ensuring competitive pricing for distributors.

For these reasons, Board staff considers that the documented costs are reasonable.

Cost Allocation and Class-specific SMDRs and SMIRRs

Board staff note that the proposed SMIRR is identical for both Residential customers and General Service < 50kW customers. Board staff and VECC

[2] "Monitoring Report Smart Meter Investment – September 2010", March 3, 2011

[3] *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

requested (staff IR # 13 b and VECC IR # 11 d) that Kingston calculate class-specific smart meter revenue requirement models by rate class and if unable to do so, to provide a detailed explanation of why that is. In its response, Kingston noted that Guideline G-2011-0001 states: "the Board notes that utilities have not been specifically directed to record all costs on a class-specific basis". In addition, Guideline G-2011-0001 states that the class-specific SMDRs should be calculated on full cost causality, where practical and where the data is available, and that "a uniform SMDR is suitable only where adequate data is not available". Kingston was not required to and did not specifically track smart meter capital and OM&A data by rate class and Kingston indicated that the data is not available to calculate class-specific SMDRs based on full cost causality. Kingston also stated that the same rationale extends to Kingston's uniform SMIRR rate rider, since as indicated in Guideline G-2011-0001: "in general, the cost allocation methodology should be the same for both the SMDR and the SMIRR". As a result, Kingston stated that it is unable to provide separate smart meter revenue requirement models by rate class.

Board staff submits that Kingston's explanations for not having information on the costs of meters of different types of meters and by customer class is of concern. In the majority of applications, whether stand-alone or as part of cost of service or IRM rates applications, in which a distributor is seeking approval and disposition of smart meter costs, distributors have been able to provide suitable data of sufficient quality. Board staff notes that this information is required by a utility to be able to populate the cost allocation model where, specifically on sheet I7.1 of the Board-issued Cost Allocation model, the installed capital cost of meters by type and then with the meter counts by customer class must be entered to calculate a capital-weighted meter cost for each meter customer class.

Board staff notes that the matter of cost allocation was first raised in two PowerStream smart meter applications in 2010 and 2011, as referenced in Guideline G-2011-0001. As noted by Kingston, Guideline G-2011-0001 indicates that an applicant utility should address cost allocation. A methodology was developed in Guelph-Hydro Electric System Ltd.'s 2012 cost of service application to get a suitable proxy cost allocation, and this methodology is explicitly built into the 2013 Smart Meter Model Version 3.00 as issued by the

Board.[4] The more exacting method of class-specific Smart Meter Models proposed by VECC has also been used in some applications.

At this point in time, the Board has reviewed or is reviewing the smart meter costs for about 60 out of the 75 electricity distributors currently operating in Ontario. In nearly all smart meter disposition applications received by the Board since the issuance of Guideline G-2011-0001, numbering over 40, applicant utilities have proposed, either in the initial application, or as a result of discovery, class-specific SMDRs and SMIRRs. Through either approach, distributors have data of adequate granularity and quality to come up with a reasonable approximation for allocating the capital and operating costs to customer classes that receive smart meters. This includes distributors larger, smaller and of similar size to Kingston. Board staff requests that Kingston provide an explanation of how its circumstances are so different from other distributors that it cannot reasonably approximate this data.

Board staff also notes that, under Kingston's proposal, both in the Application and as revised in responses to interrogatories, Kingston has proposed different SMDRs for the Residential and GS < 50 kW classes. Further, the Residential SMDR is greater than the GS < 50 kW SMDR.

Board staff submits that these results are anomalous and should not be approved. First, Kingston has used the number of smart meters installed as an allocator. This should be equivalent to a uniform allocation, so Board staff does not see how there can be different SMDRs for the Residential and GS < 50 kW customer classes. Second, the fact that the GS < 50 kW SMDR is less than the Residential class is counterintuitive. As has been the general experience in the majority of smart meter applications to date, the average installed cost per meter for a GS < 50 kW customer is higher than that for Residential smart meters; this is due to a higher relative proportion of polyphase smart meters for GS < 50 kW customers with 2-phase or 3-phase service and also with some higher installation costs due to complexity and scheduling of meter change outs. A higher average installation cost per meter means a higher deferred revenue requirement, all else

[4] Sheets 10A and 10B calculate class-specific SMDRs and SMIRRs, respectively, according to the "Guelph Hydro" approach.

being equal, while all metered customers paid the same uniform SMFA at any point in time. This means that the net deferred revenue requirement to be collected via the SMDR should be higher, on average, for a GS < 50 kW customer than for a Residential customer, and hence the SMDR for GS < 50 kW customers than for Residential customers, assuming the same recovery period. By extension, the SMIRR for a GS < 50 kW customer should also be higher than that for a Residential customer.

Board staff notes that while this situation has been observed in other applications, the anomaly has been traced back to a misallocation of smart meter costs and/or SMFA revenues, and has been easily corrected by the utility re-examining its data. The "Guelph Hydro" spreadsheet, building on the allocation method approved in PowerStream's EB-2011-0128 smart meter application, and built into the current Board-issued Smart Meter Model Version 3.00, provides a ready basis for a suitable allocation with data that the utility should have at hand.

Board staff submits that Kingston's SMDRs and SMIRRs should not be approved as proposed, and that Kingston should have to calculate reasonable class-specific SMDRs and SMIRRs in line with the approaches approved by the Board in many recent applications for smart meter cost disposition and recovery.

Costs Beyond Minimum Functionality

Kingston's Application includes a request to recover $47,256 in capital costs and $5,036 in OM&A costs beyond minimum functionality, as defined in the combined proceeding related to Smart Meters (EB-2007-0063) and in Guideline G-2001-0001[5]. These costs include web presentation and MDM/R integration.

With respect to the costs in relation to web presentation, and the integration with MDM/R, Board staff notes that the Board has previously approved costs of that nature. Board staff further considers that the documented capital and OM&A costs are reasonable.

[5] Smart Meter Funding and Cost Recovery – Final Disposition (December 15, 2011) http://www.ontarioenergyboard.ca/OEB/_Documents/Regulatory/OEB_Guideline_G-2011-0001_SmartMeters.pdf

Accounting Matters

In response to Board staff interrogatory #2 a, b, c and VECC interrogatory #12 a and b there appears to be some issues as to when to recognize capital costs. More specifically, there should not be smart meters capital costs recorded in 1.1.1 and 1.1.2 installation costs if no meters were installed in 2009. Also, in 2011 there are 1.1.2 installation costs of $229,779 but no 1.1.1 smart meter capital costs recorded. Kingston noted that the 477 smart meters that were installed in 2011 were part of the bulk purchases that were made during 2009 and 2010, and hence the reason for smart meter installation costs incurred in 2011 but no smart meter costs. Board staff submits that the number of meters installed should be matched to the capital costs and installation in the year meters are installed, not purchased. This is to ensure that the capital cost is not recognized until the meters are in-service and used and useful.

Board staff invites Kingston to update the smart meter model version 3.00 accordingly.

Taxes

In response to Board staff interrogatory #9 there appears to be some issues with the tax rates in years 2010 and 2011. Board staff asks that Kingston confirm in its reply submission that 2010 and 2011 tax rates correspond with what has been reflected in Kingston's Board approved rates and not the actual tax rate.

Board staff invites Kingston to update the smart meter model version 3.00 accordingly.

Stranded Meters

Kingston is proposing not to dispose of stranded meters at this time, but to deal with disposition in its next rebasing application, scheduled for 2015 rates. In the Application, Kingston noted that it continues to recover these costs by including the net book value of the stranded meters in its rate base. Kingston stated that the estimated net book value of stranded meters as of December 31, 2011 (i.e.,

prior to 2015 when Kingston is next expected to rebase its rates through a cost of service application) is $1,900,000.

Kingston noted in its application approximately 2700 scrap meters were sold for use by another Canadian utility while the remainder were disposed of as scrap metal. A local scrap dealer was used. The scrap pricing is regularly tested against the local market and the use of a local company also eliminates the need for transportation of the materials and the company provides drop off and pick up of the bins. In response to VECC IR# 3 a) Kingston noted it is not applying for disposition of stranded meter costs until the next cost of service application and therefore the scrap meter sale proceeds are not reflected in the current application.

Board staff submits that Kingston's proposal regarding the treatment of stranded meters is in accordance with Guideline G-2011-0001.

Operational Efficiencies

In response to Board staff interrogatory #14 parts a) and b), Kingston discussed why operational efficiencies and cost savings resulting from smart meter deployment have not occurred.

In response to Board staff interrogatory #14 a), Kingston documented that there have been no cost savings and the audited annual cost of meter reading for 2011 is $38,000, approximately a 75% increase over the audited annual cost in 2008, the year prior to the smart meter deployment by Kingston. In part this increase is due to the fact that previously, Kingston, through its agreement with its service company affiliate Utilities Kingston, was able to achieve savings for meter reading by reading water, natural gas and electric meters at the same time. These savings are no longer available and Kingston bears the full cost of electricity meter reading. Operational efficiencies that are achieved, for example, by not having to send resources out to the location to do a final meter read, are offset by the need to manage the additional Time-of-Use ("TOU") meter data for all Residential and GS < 50 kW customers. Kingston submitted that, prior to TOU billing it normally had 6 bimonthly meter reads per customer per year, as well as special reads for a "check read" or a final read. Kingston is now

managing data of 8760 (365 x 24) hourly consumption reads per customer per year, and resources are required to ensure that each interval is accounted for prior to preparing a customer bill.

Kingston also stated in response to Board staff interrogatory #14 b), that at this time it is still in the stage of understanding the impact of the smart meter implementation as it relates to potential operational efficiencies and cost savings. It is not certain that future efficiencies or costs savings will be achieved. There is a possibility, that as the utility gains a better understanding of the potential uses for the data that extend beyond the use for billing purposes, that it may be able to identify efficiencies in the future.

Board staff takes no issue with Kingston's explanations at this time, and recognizes that it may take time for further savings to be recognized. As Kingston, and the utility sector generally, become more accustomed to customer and operational data (i.e. service interruptions, meter tampering) that smart meters and TOU pricing provide, re-engineering of business processes may allow for more efficiencies to be realized over time.

Board staff submits that Kingston should be prepared to further address any operational efficiencies in its distribution operations overall resulting from smart meter deployment and operationalization in its next cost of service rebasing application.

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Subject to the above comments, Board staff submits that Kingston's Application is in accordance 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 -