



**PUBLIC INTEREST ADVOCACY CENTRE**  
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September 19, 2012

**VIA MAIL and E-MAIL**

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
P.O. Box 2319  
2300 Yonge St.  
Toronto, ON  
M4P 1E4

Dear Ms. Walli:

**Re: Vulnerable Energy Consumers Coalition (VECC)**  
**Kitchener-Wilmot Hydro Inc. EB-2012-0288**  
**Final Submissions of VECC**

Please find enclosed the submissions of VECC in the above-noted proceeding. We have also directed a copy of the same to the Applicant.

Thank you.

Yours truly,

Michael Janigan  
Counsel for VECC  
Encl.

cc: Kitchener-Wilmot Hydro Inc.  
Ms. Margaret Nanninga

# ONTARIO ENERGY BOARD

## IN THE MATTER OF

the *Ontario Energy Board Act*, 1998, S.O. 1998, c. 15 (Schedule B), as amended;

**AND IN THE MATTER OF** an Application by Kitchener-Wilmot Hydro Inc. (“KWHI”) for an order or orders approving or fixing just and reasonable distribution rates to reflect the recovery of costs for deployed smart meters, effective November 1, 2012.

## Submissions of Vulnerable Energy Consumers Coalition (VECC)

VECC will address the following matters in its submissions:

- Prudence Review of Smart Meter Costs
- Recovery of Smart Meter Costs
- Cost Allocation & Calculation of Smart Meter Rate Riders

KWHI filed an application June 15, 2012 for smart meter recovery based on actual costs incurred to December 31, 2011 and forecasted OM&A costs to December 31, 2013 as shown in Table 1 below.<sup>1</sup>

**Table 1: Summary of Smart Meter Costs**

	<b>Audited Actual to end of 2011</b>	<b>2012 &amp; 2013 Projected</b>	<b>Total</b>
Capital	\$13,382,870.15		
OM&A	\$731,973.36	\$697,489.51	
<b>Total</b>	<b>\$14,114,843.51</b>	<b>\$697,489.51</b>	<b>\$14,812,333.02</b>

As of the end of 2011, KWHI installed 79,384 residential and 7,607 GS<50 kW smart meters between 2008 and 2011 for a total of 86,991 installed meters which represents 99.99% of its total smart meters installed. The remaining 8 smart meters were installed by May 31, 2012 for a total smart meter installation of 86,999.<sup>2</sup> The costs for the last remaining installs in 2012 are not included in this application.<sup>3</sup> Capital and OM&A costs related to new (growth) smart meter installs post 2011 have not been included for recovery in this application. These costs will be included as part of KWHI’s 2014 COS application.<sup>4</sup>

KWHI’s smart meter costs include costs related to minimum functionality and smart meter costs beyond minimum functionality as defined in the Board’s Guideline G-2011-0001.<sup>5</sup>

<sup>1</sup> Application, Paragraph 3

<sup>2</sup> Application, Paragraphs 19 & 20

<sup>3</sup> Application, Paragraph 42

<sup>4</sup> Application, Paragraph 44

<sup>5</sup> Board Guideline G-2011-0001, Smart Meter Funding and Cost Recovery – Final Disposition, dated December 15, 2011

In this application, KWHI seeks:

- Approval to recover the deferred revenue requirement related to smart meters costs from 2006 to December 31, 2012 less the Smart Meter Funding Adder (SMFA) revenues collected from 2006 to April 30, 2012 and associated interest collected to October 31, 2012 via a Smart Meter Disposition Rider (SMDR) effective November 1, 2012 for 18 months to April 30, 2014.
- Approval of a Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR) to recover the incremental annual revenue requirement associated with smart meters installed from the inception of smart meters through to December 31, 2012 including forecast costs after 2012. The SMIRR is based on the incremental revenue requirement related to installed smart meters for the 2013 rate year. The SMIRR will be effective May 1, 2013 for 12 months to April 30, 2014 until these costs can be incorporated into distribution rates in KWHI's next Cost of Service (COS) rate application currently scheduled for 2014 rates.<sup>6</sup>
- KWHI is proposing that the SMDR and SMIRR rate riders be collected from the residential and GS < 50 kW customer classes.

### **Prudence Review of Smart Meter Costs**

In 2008, KWHI became authorized to conduct smart meter activities, conditional on its meters being acquired pursuant to and in compliance with the Request for Proposal issued by London Hydro Inc.

KWHI and its neighbours in the Waterloo Region were awarded the same AMI technology. KWHI indicates it was able to collaborate and share costs associated with project management, vendor contract negotiations, contract legal review and AMI infrastructure planning with its neighbouring utilities.<sup>7</sup>

In response to VECC interrogatory # 4, KWHI confirmed that operational efficiencies and cost savings were achieved as a result of participating in the London RFP, as a joint group effort was used to develop the RFP and evaluate the vendor's responses. In addition, all costs associated with the RFP process were shared amongst the RFP participants.

In considering the above, VECC submits that it is reasonable to conclude that KWHI experienced some efficiencies in its smart meter implementation program through collaboration with its neighbouring utilities.

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<sup>6</sup> Application, Paragraph 5

<sup>7</sup> Application, Paragraph 24

As shown in Table 2 below, KWHI calculates its average capital cost per smart meter (excluding costs beyond minimum functionality) as \$149.99<sup>8</sup>, based on 86,991 installed smart meters. On a total cost basis (capital & OM&A costs) excluding costs beyond minimum functionality, the average cost per meter is \$160.24.

**Table 2: Average Total Cost per Meter**

	<b>Costs</b>	<b>Average Total Cost per Meter (excluding cost beyond min functionality)</b>	<b>Average Total Cost per Meter (including cost beyond min functionality)</b>
Capital Costs	\$13,382,870		<b>\$153.84</b>
Less Capital Costs Beyond Minimum Functionality	(\$355,322)		
<b>Capital Costs</b>	<b>\$13,047,548</b>	<b>\$149.99</b>	
OM&A	\$1,429,463		<b>\$16.43</b>
Less OM&A Costs Beyond Minimum Functionality	(\$537,777)		
<b>OM&amp;A Costs</b>	<b>\$891,686</b>	<b>\$10.25</b>	
<b>TOTAL</b>	<b>\$13,939,234</b>	<b>\$160.24</b>	<b>\$170.27</b>
Total Meters Installed	86,991		

Appendix A of the Combined Proceeding Decision (EB-2007-0063, September 21, 2007) compares data for 9 out of 13 utilities and shows the total cost per meter ranged from \$123.59 to \$189.96, with Hydro One Networks Inc. being the main exception at \$479.47, due in part for the need for more communications infrastructure and increased costs to install smart meters for customers over a larger and less dense service area.

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 is \$226.92 (based on 4,382,194 meters (94% complete) with the total provincial investment in smart meter installation of \$994,426,187).<sup>9</sup>

<sup>8</sup> Application, Paragraph 8

<sup>9</sup> Monitoring Report Smart Meter Investment – September 2010, March 3, 2011

KWHI's total average smart meter costs (excluding costs beyond minimum functionality) of \$160.24 are well within the range in the Combined Proceeding Decision and well below the recent sector averages. VECC observes that when costs beyond minimum functionality are included, KWHI's total average costs (\$170.27) are below the sector averages.

### Costs Beyond Minimum Functionality

KWHI's application includes \$859,099 for costs beyond minimum functionality (capital costs of \$335,322 and OM&A costs of \$523,777).<sup>10</sup> The OM&A costs include projected spending of \$127,630 in 2012 and \$144,000 in 2013.<sup>11</sup> VECC observes that the total costs beyond minimum functionality represent approximately 5.8% of KWHI's total smart meter program spending (\$859,099/\$14,812,333).

The Board's Guideline (G-2011-0001) indicates that a distributor may incur costs that are beyond the minimum functionality as defined in O. Reg. 425/06.

Specifically the Guideline states,

#### 3.4 Costs Beyond Minimum Functionality

While authorized smart meter deployment must meet the requirements for minimum functionality, a distributor may incur costs that are beyond the minimum functionality as defined in O.Reg. 425/06. To date, the Board has reviewed three types of costs that are beyond minimum functionality:

- Costs for technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06;
- Costs for deployment of smart meters to customers other than residential and small general service (i.e. Residential and GS < 50 kW customers); and
- Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.

KWHI indicates its costs exceeding minimum functionality are for capital: CIS system changes (ODS) and OM&A: TOU rate implementation, web presentment, customer communication, MDM/R integration and training and ODS fees.<sup>12</sup> The Board's Guideline indicates these costs may be recoverable provided a distributor shows how these costs are required for its smart meter program and how these costs are incremental.<sup>13</sup>

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<sup>10</sup> Application, Paragraph 43

<sup>11</sup> Smart Meter Model, 20120615

<sup>12</sup> Application, Paragraph 46 & 48

<sup>13</sup> Board Guideline G-2011-0001, Smart Meter Funding and Cost Recovery – Final Disposition, dated December 15, 2011, Pages 15-17

KWHI provided a breakdown of the capital and OM&A costs that exceed minimum functionality by year for the years 2009 to 2013.<sup>14</sup>

KWHI indicates that all the costs claimed are purely incremental and have been incurred solely for the purpose of implementing the smart meter and TOU programs.<sup>15</sup>

In response to VECC interrogatories # 1, 7, 8, 12, 15 and Board Staff interrogatories # 2, 5, 6, 7 KWHI provided specific explanations regarding the nature and level of its smart meter costs.

VECC takes no issue with KWHI's explanations of costs. VECC agrees with Board Staff that KWHI should be prepared to support ongoing incremental OM&A expenses related to costs beyond minimum functionality in its next cost of service rates application.<sup>16</sup>

KWHI indicates that cost savings have resulted from the implementation of smart meters, namely the manual meter reading costs. Reduced costs savings have not been reflected in the smart meter model as these savings are already built into KWHI's distribution expenses in its 2010 COS application (EB-2009-0267).<sup>17</sup> In response to Board Staff interrogatory #3, KWHI indicated these reduced costs savings related to maintenance of meters is approximately \$292K.

In response to VECC interrogatory #10, KWHI indicates its primary focus has been meeting the Provincial requirements for smart meter deployment and TOU billing and as such KWHI has experienced limited other operational efficiencies and cost savings to date. However, KWHI has begun to make use of smart meter data that has lead to the replacement of equipment in the process of failing during regular business hours, thus saving possible overtime charges. KWHI also plans to invest in an Outage Management System (OMS) and integrate real-time smart meter data available within this system, which should result in better, faster, and more efficient maintenance and repair with respect to tampering, equipment failures, high voltage situations and power interruptions.

In considering the above, VECC submits KWHI's installed smart meter costs are reasonable and takes no issue with the quantum or nature of the costs.

### **Recovery of Smart Meter Costs**

The Board's Guideline G-2011-0001<sup>18</sup> states the following:

"The Board expects that the majority (90% or more) of costs for which the distributor is seeking recovery will be audited."

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<sup>14</sup> Application, Paragraph 48

<sup>15</sup> Application, Paragraph s 47 & 48

<sup>16</sup> Board Staff Submission, Page 9

<sup>17</sup> Application, Paragraph 45

<sup>18</sup> Board Guideline G-2011-0001, Smart Meter Funding and Cost Recovery – Final Disposition, dated December 15, 2011, Section 3.5, Page 18

KWHI indicates that as of December 31, 2011, KWHI's total audited capital costs for its smart meter program reached 95.29% of its total forecasted cost with 99.99% of its total smart meters installed.<sup>19</sup>

VECC submits KWHI's percentage of audited costs conforms to the Board's Guidelines.

### **Cost Allocation & Calculation of Smart Meter Rate Riders**

Section 3.5 of the Board's Guideline G-2011-0001 states:

In the Board's decision with respect to PowerStream's 2011 Smart Meter Disposition Application (EB-2011-0128), the Board approved an allocation methodology based on a class-specific revenue requirement, offset by class-specific revenues. The Board noted that this approach may not be appropriate or feasible for all distributors as the necessary data may not be readily available.

The Board views that, where practical and where the data is available, class-specific SMDRs should be calculated based on full cost causality. The methodology approved by the Board in EB-2011-0128 should serve as a suitable guide. A uniform SMDR would be suitable only where adequate data is not available.

KWHI indicates it tracked the installed cost of smart meters specifically by rate class through the use of work orders in its ERP system and the identification of smart meter types through its smart meter purchases.<sup>20</sup>

In response to Board Staff interrogatory # 6, KWHI calculates the following average meter cost and installation cost by customer class as per Table 3 below. KWHI calculates an average total cost based on the aggregate total for each class, not individual meters.<sup>21</sup>

**Table 3: Average Installed Meter Costs by Customer Class**

<b>Customer Class</b>	<b>Average Meter Cost</b>	<b>Average Installation Cost</b>	<b>Total Average Cost</b>
<b>Residential</b>	\$75.09	\$16.15	\$91.24
<b>GS&lt;50 kW</b>	\$260.94	\$59.22	\$320.16

VECC notes the average installed cost of GS<50 kW meters is approximately 3.5 times of the costs for residential meters.<sup>22</sup>

Given the difference in meter costs between customer classes, VECC submits the only way to avoid undue cross subsidy is to calculate class specific rate riders that reflect the full costs for

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<sup>19</sup> Application, Paragraph 18

<sup>20</sup> Application, Paragraph 52

<sup>21</sup> Response to VECC Interrogatory #1(b)

<sup>22</sup> Application, Paragraph 52

each customer class.

In its application, KWHI proposed class specific SMDR and SMIRR rate riders for the residential and GS<50 kW customer classes. In response to VECC interrogatory #13, KWHI confirmed that the following cost allocation methodology was used to calculate the SMDR and SMIRR rate riders:

- Allocation of the return (deemed interest plus return on equity) and amortization based on the capital costs of each class;
- Allocation of OM&A based on number of meters in each class;
- Allocation of PILs based on the revenue requirement allocated to each class before the calculation of the PILs; and
- Allocation of Smart Meter Funding Adder collected based on actual amounts collected from each class. SMFA revenue for the GS>50 kW and Large Use rate class have been split equally between the residential and GS<50 kW classes.

In response to VECC interrogatory #14 (a), KWHI provided separate smart meter revenue requirement models by customer class and the resulting rate riders that accounted for corrections made to the data in the application. In response to VECC #17 and Board Staff # 9(c), KWHI proposed the following updated rate riders shown in Table 3 below.

**Table 3: SMDR & SMIRR Rate Riders: As Filed Compared to Revised**

Class	SMDR (\$/month)		SMIRR (\$/month)	
	As Filed	Revised as per VECC #14(a), 17 & BS #9(c)	As Filed	Revised as per VECC #14(a), 17 & BS #9(c)
<b>Residential</b>	(\$0.0046)	\$0.1345	\$0.5930	\$1.6171
<b>GS&lt;50 kW</b>	\$8.6823	\$8.4176	\$4.7369	\$5.5530

VECC supports KWHI's proposed updated rate riders.

In its submissions, Board Staff submits that the SMDR and SMIRR are, by design, monthly charges applied on a per customer basis and should only be determined to two decimal places, similar to that of the fixed monthly charge, rather than to four decimal places. Board Staff proposed corrected SMDRs and SMIRRs to two decimal places.<sup>23</sup> VECC agrees with the submissions of Board Staff on this issue.

### **Recovery of Reasonably Incurred Costs**

VECC submits that its participation in this proceeding has been focused and responsible.

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<sup>23</sup> Board Staff Submission, Page 7



Accordingly, VECC requests an order of costs in the amount of 100% of its reasonably-incurred fees and disbursements.

All of which is respectfully submitted this 19<sup>th</sup> day of September 2012.