

**Ontario Energy  
Board**  
P.O. Box 2319  
27<sup>th</sup> Floor  
2300 Yonge Street  
Toronto ON M4P 1E4  
Telephone: 416- 481-1967  
Facsimile: 416- 440-7656  
Toll free: 1-888-632-6273

**Commission de l'énergie  
de l'Ontario**  
C.P. 2319  
27<sup>e</sup> étage  
2300, rue Yonge  
Toronto ON M4P 1E4  
Téléphone: 416- 481-1967  
Télécopieur: 416- 440-7656  
Numéro sans frais: 1-888-632-6273



**BY E-MAIL**

August 20, 2012

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
P.O. Box 2319  
2300 Yonge Street, Suite 2700  
Toronto ON M4P 1E4

Dear Ms. Walli:

**Re: Veridian Connections Inc.  
Application for Disposition and Recovery of Costs Related to Smart Meter  
Deployment  
Board File Number EB-2012-0247**

Pursuant to the process documented in the Notice of Application and Hearing, 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 Veridian Connections Inc. on May 31, 2012.

Yours truly,

*Original signed by*

Daniel Kim  
Analyst

cc: G. Armstrong, Vice-President – Corporate Services, Veridian Connections Inc.  
S. Zebrowski, Regulatory & Key Projects Analyst, Veridian Connections Inc.  
M. Jannigan, Counsel, VECC  
S. Grice, Consultant, VECC

**2012 ELECTRICITY DISTRIBUTION RATES**

**Veridian Connections Inc.**

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

**EB-2012-0247**

**STAFF SUBMISSION**

**August 20, 2012**

## **INTRODUCTION**

Veridian Connections Inc. (“Veridian”) is a licensed electricity distributor serving approximately 114,200 customers in Ajax, Pickering, Belleville, Brock, Uxbridge, Scugog, Clarington, Port Hope and Gravenhurst. Veridian filed a stand-alone application (the “Application”) with the Board on May 31, 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 January 1, 2009 to December 31, 2011. Veridian requested approval of proposed Smart Meter Disposition Riders (“SMDRs”) and Smart Meter Incremental Revenue Requirement Rate Riders (“SMIRRs”) effective November 1, 2012. The Application is based on the Board’s policy and practice with respect to recovery of smart meter costs.

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 May 31, 2012, Veridian applied for the following approvals:

- a) Addition of a SMDR of \$0.97 per metered Residential customer per month and \$2.45 per metered General Service < 50 kW customer per month, effective November 1, 2012 to April 30, 2014; and
- b) Addition of a SMIRR of \$0.98 per metered Residential customer per month and \$2.46 per metered General Service < 50 kW customer per month, effective November 1, 2012.

### ***Updated Evidence***

Veridian revised its proposed class-specific SMDRs in response to Board staff interrogatory #13, with respect to the following:

- Veridian allocated the SMFA revenues and interest by rate class to calculate class-specific SMDRs.

The proposed class-specific SMDRs calculated in response to Board staff IR #13 are summarized below:

**Table 1: Original and Revised SMDRs**

Class	SMDR (\$/month, for 18 months from November 1, 2012 to April 30, 2014)	
	Original	Revised
		Board staff IR #13
<b>Residential</b>	\$0.97	\$0.83
<b>GS &lt; 50 kW</b>	\$2.45	\$4.15

Board staff takes no issue with Veridian's approach for allocating the SMFA revenues and interest by rate class as revised in response to Board staff IR #13.

### ***SMDR and SMIRR Calculations***

Veridian has proposed its own methodology for the calculation of the SMDRs and the SMIRRs taking into account the stub period between May 1 to October 31, 2012 and the foregone revenues. In its response to Board staff IR #12, Veridian explained how its approach should not result in an over- or under-recovery of the historical and ongoing incremental revenue requirement related to installed smart meters and associated infrastructure and operations until Veridian's next cost of service rates become effective, expected to be May 1, 2014.

Veridian's approach seems reasonable in principle, but Board staff notes that Veridian's methodology deviates from that which the Board approved with respect to the foregone SMIRR revenues from May 1, 2012 until the effective date of rates in other stand-alone smart meter applications.

The methodology employed in all other smart meter applications to date have the foregone SMIRR revenues, in this case from May 1, 2012 to October 31, 2012, calculated and added onto the net deferred revenue requirement to be recovered from an “adjusted” SMDR. The SMIRR as calculated via the Smart Meter Model and allocated to applicable customer classes, is unchanged.

Board staff submits that the methodology approved by the Board in other smart meter applications to date is preferable, insofar that the SMIRR remains as a proxy for the monthly change in the base monthly fixed charge for each applicable metered customer to recover the annualized revenue requirement. The stub period SMIRR revenues are recovered through the adjusted SMDR. Board staff submits that this approach, while conceptually equivalent to Veridian’s approach, is flexible in the event that Veridian has a sunset date other than April 30, 2014. Veridian’s approach assumes the revenue requirement to December 31, 2013 and the corresponding recovery to April 30, 2014. If Veridian’s effective date for rebased rates is other than May 1, 2014, the utility will over- or under-recover via the SMIRR.

Board staff submits that Veridian should calculate adjusted SMDRs, taking into account the stub period SMIRR revenues for the period May 1, 2012 to October 31, 2012, and also calculate the SMIRRs per the model and any class cost allocation, in accordance with the approach approved in other applications.<sup>1</sup>

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

Veridian noted that within its 2010 cost of service rate application (EB-2009-0140) Veridian proposed and the Board approved for inclusion within Veridian’s rate base of smart meter capital expenditures up to December 31, 2008. Veridian also noted that in that same proceeding, the Board approved disposition of the balances in Veridian’s Account 1555 – Smart Meter Capital Variance and Account 1556 – Smart Meter OM&A Variance to December 31, 2008 through a Smart Meter Cost Recovery rate rider effective May 1, 2010.

---

<sup>1</sup> e.g. Decision and Order, EB-2012-0086 regarding Cambridge and North Dumfries Hydro Inc., Decision and Order, EB-2012-0094, Cooperative Hydro Embrun Inc., Decision and Order, EB-2012-0187, London Hydro Inc., all issued July 26, 2012.

In its current Application, Veridian stated that it had completed smart meter installations for 99.7% of RPP-eligible Residential customers and 99.2% of its General Service Less Than 50 kW customers as of December 31, 2011. Veridian documented the total and average per smart meter capital costs as follows in Table 2 in its Application:

<b>Time Period</b>	<b>Total Capital Costs</b>	<b>Total Installs</b>	<b>Per Meter Capital Costs</b>
<b>2007 – 2008</b>	<b>\$7,819,148</b>	<b>70,869</b>	<b>\$110.33</b>
<b>2009 – 2011</b>	<b>\$7,730,561</b>	<b>41,485</b>	<b>\$186.35</b>
<b>2007 – 2011</b>	<b>\$15,549,709</b>	<b>112,354</b>	<b>\$138.40</b>

Veridian confirmed that 100% of the costs submitted for disposition are included within its audited financial statements to December 31, 2011. Board staff submits that Veridian's Application complies with Guideline G-2011-0001 with regard to the expectation that at least 90% of the smart meter costs be audited actuals.

Veridian noted that its average per meter capital cost is \$138.40, during the time period 2007 to 2011, which compares favourably to the per meter capital cost of \$186.76 noted within the Board's Sector Smart Meter Audit Review Report.

In its Application, Veridian documented its procurement process and the process to become authorized for smart meter deployment in compliance with O.Reg. 427/06. Veridian was one of the 13 licensed distributors that were authorized by regulation to conduct smart meter activities. Veridian participated in the Board's 2007 Combined Proceeding with respect to smart meters (EB-2007-0063). Veridian collaborated with the Coalition of Large Distributors ("CLD") to establish vendor selection options, which then led to a joint procurement process for key components of the Advanced Metering Infrastructure<sup>2</sup>. Veridian joined other CLD members to jointly negotiate smart meter supply contracts based on aggregate meter volumes in order to achieve the most favourable pricing. Board staff takes no issue with Veridian's explanations on these matters.

---

<sup>2</sup> Application, page 7

Veridian claims an average capital cost per meter of \$138.40. For comparison purposes, Board staff observes that the Board's *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 with a capital cost of \$570,339,200 as from January 1, 2006 to September 30, 2009). The corresponding average total cost per meter (capital and OM&A) is \$207.37 from the data in that report. Following the audit review, the Board issued a letter on October 26, 2010 requiring all distributors 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 for reporting Ontario LDCs was \$226.92.<sup>3</sup>

Board staff notes that Veridian's per meter costs are below the average, and within the range, seen for distributors of similar sizes and largely serving urbanized areas in these reports and in applications for smart meter cost recovery that have been made to the Board for approval.

Noting that Veridian was one of the 13 licensed distributors that participated in the Board's Combined Proceeding, Board staff submits that Veridian has acted in accordance with the regulations in its processes 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 historical costs and the forecasted costs are prudent, with certain exceptions.

#### *Meter Base Repairs*

Veridian has included an amount of \$35,000 for meter base repairs in 2012, in addition to \$122,000 during the initial deployment from 2009 to 2011. In response to Board staff IR # 2, Veridian explained that this amount is an amortization of \$70,000 over the two year period for which the SMIRR is supposed to cover (until Veridian's next expected rebasing for 2014 rates).

---

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

Veridian explained that the estimate of \$70,000 is based on “approximately 72 customers for which meter base repairs and/or estimates will be required and are expected to be completed in 2012.” Board staff notes that this equates to a cost of approximately \$1000 per meter base repair/retrofit. It is not clear whether these meter base repairs/retrofits estimated are solely related to the remaining smart meters to be deployed, or whether this also includes repairs and retrofits for meter bases for customers for which smart meters were installed but which might have encountered a problem subsequently. If the meter base repairs/retrofits are solely for the purposes of the initial installation, then the amounts should be recoverable as an expensed amount, in accordance with the Board’s Decision EB-2007-0063. However, for repairs to the meter base after the smart meter was installed and functioning properly, Board staff notes that the meter base is the property of and the responsibility of the customer.

Board staff also questions the quantum estimated by Veridian, as Veridian has documented \$122,000 for meter base repairs and retrofits for the period 2009 to 2011, when it was actively deploying smart meters, but \$70,000 for 2012 when only a small number of smart meter conversions remain. Board staff submits that the Board consider disallowance of the meter base repair/retrofit amount of \$35,000 estimated as an amortized 2012 expense.

*OM&A Costs for Maintenance of Advanced Metering Communications Device*

Veridian has estimated an amount of \$99,246 for OM&A expenses for 2012, related to maintenance of Advanced Metering Communications Devices. In response to Board staff IR # 3, Veridian explained that these expenses are related to investigation and resolution of Meter Trouble Reports, and documented that common issues relate to: Blank Display or No Read; EEprom Errors, Meter not registered to the network; Reverse Energy Flow; and Modem Reset. Veridian also explains that the number and complexity of these trouble reports has increased as the number of meters deployed has increased. Veridian documents the following number of such reports:

Year	Meter Trouble Reports
------	-----------------------



2009	87
2010	139
2011	373
2012 (Jan. 1 to June 30)	336

Board staff appreciates that some of these troubles are related to the technology employed and the increased functionality afforded by a more intelligent metering and communications system. However, Board staff is concerned about this trend for increasing trouble reports. With electronic technology, and a new system like smart meters and the AMI communications systems, it would not be unexpected for troubles and failures to occur initially, but then for the failure rate to diminish until devices approach end of life.

Thus, while Board staff accepts that meter trouble reports may be expected, and that the smart metering and associated communications technology may increase the incidence of possible troubles, Board staff also submits that the incidence should decrease as initial troubles are resolved and the utility's staff gain experience.

It is also not clear to Board staff also if all of these conditions are fully incremental to existing OM&A. As one example, Reverse Energy Flow situations requiring a "[f]ield visit to investigate either possible theft of power or customer equipment installed without Veridian knowledge" is a situation that could occur regardless of the metering technology employed, although the daily communication of a customer's usage makes the identification of such incidents more likely due to smart metering technology.

Board staff is unaware of trouble reporting and resolution being a significant ongoing cost identified in other applications seeking approval for disposition and recovery of smart meter costs.

As such, Board staff submits that Veridian's estimate of \$99,246 for 2012 as an ongoing operating expense for smart meter trouble reports is not adequately supported. Board staff submits that an annual allowance of \$50,000 may be

adequate, and that Veridian should be prepared to report on smart meter-related trouble reports in its next cost of service application.

### ***Costs Beyond Minimum Functionality***

In its Application, Veridian documents \$32,290 capital costs and \$160,469 operating expenses for costs beyond minimum functionality.

In response to Board staff interrogatory #11, Veridian noted that the modifications were related to CIS integration with the MDM/R and to facilitate web presentment of smart meter data. Veridian also noted that the costs for the synchronization program totalled \$24,690 and not the original amount of \$23,300. Veridian confirmed the correct amount has been used to calculate revenue requirement and rate riders. Board staff takes no issue with the documented costs related to “beyond minimum functionality” aspects of Veridian’s smart meter program based on the documentation provided in the response to Board staff interrogatories.

### ***Other Matters***

#### ***Stranded Meters***

Veridian is proposing not to dispose of stranded meters at this time and continues to include these costs in its rate base for rate-making purposes.

In response to Board staff interrogatory #5, Veridian confirmed that Veridian continues to amortize the stranded meter assets currently included in rate base for rate-setting purposes. Veridian noted the net book value of stranded meters is estimated as \$4,420,000 as of December 31, 2013.

Board staff submits that Veridian’s proposal is in accordance with Guideline G-2011-0001. However, in its next cost of service application for 2014 rates, Veridian should make a proposal for the recovery of stranded meter costs through class-specific Stranded Meter Rate Riders, as envisaged in section 3.7 of Guideline G-2011-0001.

### *Operational Efficiencies*

In response to VECC interrogatory #5, Veridian stated that with minor exceptions as detailed in its evidence, it has implemented smart metering within the confines of the Board's interpretation of minimum functionality. Veridian also noted that it has not identified any realized operational efficiencies or cost savings beyond the avoided costs of manual meter reading.

Board staff notes that Veridian and other Ontario electricity distributors may, more generally, be able to, and be expected to realize longer term productivity gains as they gain experience with smart meters and TOU data, and are able to undertake business process re-designs to integrate these new systems with existing operational systems and practices. Board staff submits that Veridian should be prepared to address any operational efficiencies due to smart meter and TOU implementation in its next cost of service rebasing application.

---

Subject to the above comments, Board staff submits that Veridian'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 -