



CAMBRIDGE AND NORTH DUMFRIES HYDRO INC.  
1500 Bishop Street, P.O. Box 1060, Cambridge, ON N1R 5X6  
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March 27, 2012

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
P.O. Box 2319  
2300 Yonge Street, 26<sup>th</sup> Floor  
Toronto, ON M4P 1E4

Dear Ms. Walli:

**Re: Cambridge and North Dumfries Hydro Inc. (OEB License ED-2002-0574)  
2012 Smart Meter Cost Recovery Application – Final Disposition  
EB-2012-0086**

Cambridge and North Dumfries Hydro Inc. ("CND") is a licensed electricity distributor (ED-2002-0574) that owns and operates the electricity distribution system in the City of Cambridge and the Township of North Dumfries. CND has installed over 50,000 smart meters as of December 31, 2011, representing 100% of its eligible consumers.

CND has received funding for the Smart Meter program through the collection of its Smart Meter Funding Adders.

CND has not included Smart Meter assets in the rate base of previous Cost of Service Applications, nor has the Ontario Energy Board ("the Board") included them in its Decisions on such Cost of Service Applications, and CND has not previously filed a Smart Meter Cost Recovery Application.

Therefore, at this time, CND wishes to address the recovery of the revenue requirement related to smart meters installed in the CND service territory to December 31, 2011 through the Smart Meter Disposition Rider ("SMDR") and the recovery of the ongoing revenue requirement for costs, including those incurred after December 31, 2011, through the Smart Meter Incremental Revenue Requirement Rate Rider ("SMIRR").

Please find accompanying this letter two hard copies of the Application, together with electronic copies (in Excel format) of the completed Board model. A PDF version of this application is also being filed electronically through the Board's web portal.

CND is proposing an implementation date of July 1, 2012 in order to allow for the review of this application. If this implementation date is not possible, CND requests retroactivity to July 1, 2012.

CND has calculated customer bill impacts from the rate riders proposed in this application, compared to the rates in effect at May 1, 2011 including the existing Smart

Meter Funding Adder of \$1.61 per metered customer per month, which is effective until April 30, 2012, as follows:

Residential customer at 800 kWh monthly consumption; no change from the existing \$1.61 Smart Meter Funding Adder that is in place until April 30, 2012.

General Service <50 customer at 2,000 kWh monthly consumption; an increase of \$1.99 or a 0.88% increase on the overall bill.

Sincerely,

**CAMBRIDGE AND NORTH DUMFRIES HYDRO INC.**

*Original Signed by John Grotheer*

John W. Grotheer  
President and CEO

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O.  
1998, c.15, (Schedule B);

**AND IN THE MATTER OF** an application by Cambridge and North  
Dumfries Hydro Inc. to the Ontario Energy Board for an order or orders  
approving and fixing just and reasonable rates with respect to Smart  
Meters to be effective July 1, 2012.

Title of Proceeding: An application by Cambridge and North Dumfries  
Hydro Inc. for an order or orders approving and  
fixing just and reasonable rates with respect to  
Smart Meters to be effective July 1, 2012.

Applicant's Name: Cambridge and North Dumfries Hydro Inc.

Applicant's Address for Service: 1500 Bishop Street,  
P.O. Box 1060  
Cambridge, ON N1R 5X6

Attention: John Grotheer  
President & CEO

Telephone: 519-621-8405, Ext. 2355

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## 1.0 **Application**

Cambridge and North Dumfries Hydro Inc. ("CND") is a licensed electricity distributor regulated by the Ontario Energy Board ("OEB" or "the Board") under the *Ontario Energy Board Act, 1998*. CND holds Electricity Distribution License No. ED-2002-0574 and provides service to customers in the city of Cambridge and in the Township of North Dumfries. In this Smart Meter Cost Recovery Application, hereinafter referred to as the "Application", CND seeks the following:

- The Board's determination that Smart Meter capital of \$8,177,996 and operating expenditures of \$427,716 to December 31, 2011 are prudent;
- A Smart Meter Disposition Rider ("SMDR") of (\$.06) for residential customers and (\$.16) for GS<50kW customers, to dispose of the deferred revenue requirement related to Smart Meters installed through December 31, 2011, net of the Smart Meter Funding Adder revenue collected to April 30, 2012. The SMDR will be in place for a period of 22 months, from July 1, 2012, until the implementation date for new rates as determined in CND's next Cost of Service Application, considered to be May 1, 2014 for purposes of this Application;
- A Smart Meter Incremental Rate Rider ("SMIRR") of \$1.67 for residential customers and \$3.76 for GS<50kW customers, to recover the annual revenue requirement associated with Smart Meters installed from the inception of the Smart Meter program through to December 31, 2011 including forecasted costs after December 31, 2011. The SMIRR will be in place for the same 22 month period implemented for the SMDR.

On June 23, 2004 the Ontario government mandated that all Residential and General Service <50 kW customers have a Smart Meter installed by the target date of December 31, 2010. As per the Board's Final Determination Under Section 1.2.1 of the Standard Supply Service Code to Mandate Time-Of-Use ("TOU") pricing for Regulated Price Plan Consumers (EB-2010-0218, the "Final Determination"), TOU billing was required to be in place for all Residential and General Service <50 kW customers of CND by February 1, 2012. CND substantially completed its installation of Smart Meters and successfully cutover to Production MDM/R operations on February 24, 2012. Due to delays with the implementation of EnergyIP r7.2 by the IESO, CND is currently unable to bill customers at TOU rates, but will be able to do so once the IESO is ready.

This Application has been prepared in accordance with the Board's guidelines and requirements as follows:

- The August 8, 2007 Decision with Reasons (EB-2007-0063), which was the Board's combined proceeding in relation to Smart Meter costs for twelve distributors that were at that time authorized to conduct Smart Meter activities (the "Combined Proceeding");
- The Board's Updates to Guideline G-2008-0002 and Smart Meter Funding and Cost Recovery and Smart Meter Model issued on December 15, 2011;

- Previous Board decisions.

Throughout the duration of the Smart Meter program, CND has complied with the ongoing reporting requirements with respect to Smart Meter costs and installation progress.

CND has received funding for the program through the collection of a funding adder. The following summarizes the Smart Meter Funding Adders ("SMFA") approved by the Board to date for CND. These amounts have been charged monthly to all metered customers.

Effective May 1, 2006 \$.30 per metered customer per month (EB-2005-0343)  
Effective May 1, 2007 \$.27 per metered customer per month (EB-2007-0513)  
Effective May 1, 2008 \$.27 per metered customer per month (EB-2007-0900)  
Effective May 1, 2009 \$1.00 per metered customer per month (EB-2008-0164)  
Effective May 1, 2010 \$1.00 per metered customer per month (EB-2009-0260)  
Effective May 1, 2011 \$1.61 per metered customer per month (EB-2010-0068)

CND has not included Smart Meter assets in the rate base of previous Cost of Service Applications, nor has the Board included them in its Decisions on such Cost of Service Applications; CND has not previously filed a Smart Meter Cost Recovery Application.

CND has met the Province's timetable for implementing Smart Meters. CND commenced its Smart Meter conversion program in 2006 and had substantially completed its mass deployment of Smart Meters for all Residential and GS<50 kW customers by December 31, 2011. CND has reported that as of December 31, 2011, 46,067 Residential customer smart meters and 4,642 General Service <50 kW customer smart meters have been installed in its licensed service territory. At the end of 2011, CND has completed 100% of installations for customers in these classes.

CND began the enrolment of its Smart Meters with the provincial MDM/R in June, 2011 and successfully cutover to Production Operations on February 24, 2012.

CND's enrolment process and systems configuration was based on the availability of EnergyIP r7.2, which was expected to be in production at the IESO by the end of 2011. Due to subsequent delays by the IESO, CND is presently unable to bill customers at TOU rates. Smart Meter data is flowing to the MDM/R, and CND will bill TOU rates once EnergyIP r7.2 is promoted to the production environment of the MDM/R.

The overall effect of the SMDR and the SMIRR will result in monthly bill impacts as follows, when compared to the CND rates in effect at May 1, 2011 including the Smart Meter Funding adder of \$1.61;

- For Residential customers: no change from the existing Smart Meter Funding Adder of \$1.61. The resulting combination of the SMDR and the SMIRR is \$1.61.

- For a 2,000 kWh per month GS<50 kW customer there is a net increase of \$1.99 or 0.88% on their overall bill.

CND respectfully requests that this Application be disposed of by way of a written hearing.

CND requests that a copy of all documents filed with the Board in this proceeding be served on the Applicant as follows:

Grant Brooker, Manager of Regulatory Affairs  
Cambridge and North Dumfries Hydro Inc.  
1500 Bishop Street,  
PO Box 1060, Cambridge, ON  
N1R 5X6  
Telephone: 519.621.8405  
Facsimile: 519.621.0383  
Email: [gbrooker@camhydro.com](mailto:gbrooker@camhydro.com)

## 2.0 Manager's Summary

CND hereby applies for approval of the capital expenditures of \$8,177,996 and total OM&A costs of \$1,081,766 related to its Smart Meter deployment. The recovery of these costs is being applied for as follows:

- A Smart Meter Disposition Rider ("SMDR") charge by customer class, over a 22 month period, which represents the variance between a) the deferred revenue requirement for the years 2006 through 2011 for the installed meters up to December 31, 2011, and b) the Smart Meter Funding Adder ("SMFA") collected to April 30, 2012 (based on actual amounts collected to February 29, 2012 and the projected amounts for the months of March and April 2012).
- A Smart Meter Incremental Revenue Requirement ("SMIRR") charge by customer class, over a 22 month period, which is calculated as a proxy for the incremental change in the distribution rates that the actual expenditures would have generated had they been incorporated into the revenue requirement calculation of a Cost of Service Application.

CND requests that the two riders referenced above be implemented July 1, 2012 and if this is not possible, CND requests retroactivity to July 1, 2012.

The SMDR is calculated using the Board's Model issued on December 15, 2011. This Model is included in this Application in Appendix B. Board approved cost of capital parameters are used for all years to calculate the deferred revenue requirement. The Guidelines state that *"The Board expects that the majority (i.e. 90% or more) of the total program costs for which the distributor is seeking recovery will be audited"*. CND confirms that 100% of the costs submitted for disposition are included in the audited financial statements to December 31, 2011. The audit for the year ended December 31, 2011 is completed and it is anticipated that the audited financial statements will be approved by CND's Board of Directors at their next scheduled Board meeting on April 12, 2012. Forecasted costs included in the calculation of the SMIRR are not subject to audit.

It should be noted that in order to calculate the SMDR, the deferred revenue requirement as calculated by the Model is offset by the SMFA revenue collected and that SMFA collections for March and April 2012 are forecast values.

The SMIRR calculation includes forecasted costs after December 31, 2011. Only OM&A costs are included. No capital costs are anticipated to be spent after December 31, 2011 and none have been included in the Model or in the calculation of the SMIRR.

CND requests that the SMDR true-up be recovered from customers in the same manner as the SMIRR, as discussed in the Section 8 of this Application, Cost Allocation.

The SMIRR is for 2012 and future years, until rebasing occurs in 2014, and is calculated on the Smart Meter rate base as at December 31, 2011. The SMIRR will be collected from Residential and General Service <50 kW customers, in a manner consistent with



the investments in assets attributed to these customer classes. Appendix B contains the Model used for the calculation of the SMIRR.

The overall effect of the SMDR and the SMIRR will result in monthly bill impacts as follows:

- For Residential customers there will be no change, as the combination of the SMDR and the SMIRR is \$1.61, the same amount as the existing Smart Meter Funding Adder.
- For a typical General Service <50 kW customer with a monthly electricity consumption of 2,000 kWh they will experience a net increase of \$1.99 or 0.88% on their total bill.

The Guidelines indicate that the distributor will provide evidence on any operational efficiencies and cost savings that result from smart meter implementation. In this context CND has initially identified \$155,000 per year in savings from no longer requiring Residential and General Service < 50 kW customer meters to be read. CND installed all the required smart meters by December 31, 2011, and given the recent completion of the installations, it is difficult at this time to determine any other efficiencies or cost savings that result from smart meter implementation.

### **3.0      Smart Meter Program Status**

CND completed the mass deployment of Smart Meters in 2011, with MDM/R registration and preparations for Time-of-Use Billing completed by February 24, 2012. By the end of the 2011, 46,067 Residential, and 4,642 GS<50 kW Smart Meters had been installed in CND's service territory. This represents effectively 100% of all metering points.

Table 1 below (Table 2-Q from Chapter 2 of the *Filing Requirements for Transmission and Distribution Rate Applications*, issued June 22, 2011), indicates the program status both from the number of meters installed perspective and the financial perspective.

Table 1 Smart Meter Program Status

			Percentage of applicable customers converted	Account 1555		Account 1556
	Smart Meters Installed			Funding Adder Revenues Collected	Capital Expenditures	Operating Expenses
Year	Residential	GS <50 kW				
2006	0	0	0%	\$81,587	\$0	\$0
2007	0	0	0%	\$156,998	\$0	\$0
2008	0	0	0%	\$158,116	\$172,863	\$76
2009	7,205	285	14.77%	\$392,258	\$1,821,873	\$79,824
2010	38,304	4,053	98.30%	\$595,656	\$5,727,856	\$233,617
2011	558	304	100.00%	\$807,663	\$455,405	\$114,199
2012	0	0	100.00%	\$333,693	\$0	N/A
Total	46,067	4,642		\$2,525,970	\$8,177,997	\$427,716

Using the figures in Table 1 a capital cost per meter of \$161.27 is determined. (\$8,177,997 divided by 50,709 meters = \$161.27). If total operating expenses including 2012 forecasted expenses of \$856,010 are also included, the total cost per meter becomes \$186.30. (\$8,177,997 + \$427,716 + \$856,010 divided by 50,709 = \$186.59).

#### 4.0 Minimum Functionality

CND has incurred no costs considered to be beyond minimum functionality.

#### 5.0 Smart Meter Procurement Process

CND was authorized to install smart meters by regulation (O.Reg 427/06) conditional on its meters being acquired pursuant to and in compliance with the August 14, 2007 Request for Proposals issued by London Hydro Inc. The Attestation of the Fairness Commissioner is attached as Exhibit A to this Application as evidence that CND complied with the London RFP process.

CND has diligently and prudently managed the procurement and installation of Smart Meters.

During the Pilot Phase, CND shared costs and worked collaboratively with 44 Ontario LDCs representing 2.4 million electric endpoints to evaluate technologies, perform systems tests and ultimately recommend systems most suited to individual LDCs' customers and topography.

Final RFP evaluation and technology selection was undertaken by 21 LDCs including London Hydro, the lead LDC in the "Phase 2" procurement to maximize cost efficiencies.

CND and its neighbours in the Waterloo Region selected the same AMI technology and so were able to collaborate and share costs associated with vendor contract negotiations and AMI network infrastructure planning.

In 2009, CND completed an RFP and selected Trilliant for Smart Meter Installation Services. Prior to work commencing, the Field Services unit of Trilliant was acquired by Olameter who completed the installation work, honoring the Trilliant pricing. (Trilliant pricing was lower than what Olameter had quoted during the RFP phase).

In 2010, CND contracted with CamPro for the installation of General Service less than 50 kW meters, and this work was completed by December 2010. CND's own staff completed the more complex General Service meter conversions.

CND enjoyed preferred pricing from our Smart Meter provider by leveraging the total number of meters purchased provincially across all of the LDCs utilizing the same vendor.

CND's installation contractors utilized an efficient installation process that was streamlined through the use of new technologies. Electronic service orders were dispatched through mobile hand-held devices which eliminated paper service orders and the need for manual processing. Efficiencies were also gained through automated uploading of Smart Metering installation files to the required systems, thereby reducing the potential for manual data entry errors and reducing the need for some back office manual functions.

Suppliers of both meters and meter services were retained through competitive processes in order to help ensure optimal pricing while at the same time delivering required services and functionality.

## 6.0 Smart Meter Costs

In this Application, CND is seeking the recovery of costs related to the 50,709 Smart Meters installed in the CND's service territory to December 31, 2011. The costs relate to the purchase and installation of Smart Meters to that date and are consistent with CND's audited financial statements as of December 31, 2011. Specifically, accounts 1555 and 1556 were established consistent with the Board's direction, and balances in these accounts have been reported to the Board quarterly throughout the duration of the program. These accounts form part of the annual audited financial statements and form the basis for the cost analysis that supports the OEB smart meter model.

Table 2 General Ledger Account 1555 – Smart Meter Capital and Recovery Offset Variance Account

	A		B	C	D	E	F = A+B-C-D+E
	<u>CAPITAL</u>						
	<u>General Ledger 1555</u>						
<u>Year</u>	<u>(net)</u>	<u>Cumulative balance</u>	<u>Revenue from Riders (CR)</u>	<u>Carrying Charges (DR)</u>	<u>Stranded Meters</u>	<u>Amortization</u>	<u>Gross Capital</u>
2008	\$172,862.80	\$172,862.80	\$0.00	\$0.00	\$0.00		\$172,862.80
2009	\$1,032,914.55	\$1,205,777.35	\$788,958.53	\$0.00	\$0.00		\$1,821,873.08
2010	\$8,307,167.55	\$9,512,944.90	\$595,655.78	\$42,146.00	\$3,424,107.27	\$291,285.68	\$5,727,855.74
2011	-\$847,209.68	\$8,665,735.22	\$807,662.60	\$87,619.00	\$0.00	\$582,571.35	\$455,405.27
Total	<u>\$8,665,735.22</u>		<u>\$2,192,276.91</u>	<u>\$129,765.00</u>	<u>\$3,424,107.27</u>	<u>\$873,857.03</u>	<u>\$8,177,996.89</u>

Table 3 General Ledger Account 1556 – Smart Meter OM&A Variance Account

	A		B	C	D = A - B - C
	<u>OM&amp;A Exenditures</u>				
<u>YEAR</u>	<u>General Ledger 1556</u>	<u>Cumulative balance</u>	<u>Amortization</u>	<u>Carrying Charges</u>	<u>OM&amp;A expenditures</u>
2008	\$76.10	\$76.10	\$0.00	\$0.00	\$76.10
2009	\$79,824.15	\$79,900.25	\$0.00	\$0.00	\$79,824.15
2010	\$526,436.93	\$606,337.18	\$291,285.68	\$1,534.00	\$233,617.25
2011	\$706,324.62	\$1,312,661.80	\$582,571.35	\$9,554.00	\$114,199.27
Total	<u>\$1,312,661.80</u>		<u>\$873,857.03</u>	<u>\$11,088.00</u>	<u>\$427,716.77</u>

## 7.0 Stranded Meter Costs

CND is not seeking disposition of the stranded meter costs of its conventional meters in this application.

CND transferred its net stranded meter costs to “Sub-account Stranded Meter Costs” of Account 1555 in 2010. The table below (Table 2-R from Chapter 2 of the *Filing Requirements for Transmission and Distribution Rate Applications*, issued June 22, 2011) shows the detailed financial information related to Stranded Meter Costs for the years 2010 to 2012. CND has not recorded depreciation expenses or carrying charges on the stranded meter costs. The amounts in Table 4 are included for information purposes only. Proceeds on Dispositions represent the net proceeds received for the removal and disposal of the scrap hydro meters.

Table 4 Stranded Meter Treatment

STRANDED METER TREATMENT						
Year	Gross Asset Value	Accumulated Amortization	Contributed Capital	Net Asset	Proceeds on Dispositions	Residual Net Book Value
	A	B	C	D = A-B-C	E	F = D-E
2010	\$8,286,379.75	\$4,862,272.48	\$0.00	\$3,424,107.27	\$7,597.55	\$3,416,509.72
	2011 Amort	\$332,604.01				
2011	\$8,286,379.75	\$5,194,876.49	\$0.00	\$3,091,503.26	\$7,597.55	\$3,083,905.71
	2012 Amort	\$326,187.01				
2012	\$8,286,379.75	\$5,521,063.50	\$0.00	\$2,765,316.25	\$7,597.55	\$2,757,718.70

## 8.0 Cost Allocation

Table 5 below indicates the allocation of costs and resultant revenue requirements. The percentages of 81.46% for Residential customers and 18.54% for General Service customers <50 kWh are used to determine rate riders in the most equitable manner possible.

The allocation process used by CND is as follows:

- OM&A expenses have been allocated on the basis of the number of meters installed for each class.
- The Return and Amortization have been allocated on the basis of the capital costs of the meters installed for each class.
- PILs have been allocated based on the revenue requirement derived for each class before PILs.

Table 5 Cost Allocation

Allocation of Revenue Requirement between Customer Classes										
Customer Class	# of Active Metered Customers at December 31, 2012	Percentage	Total Capital	Return	Amortization	OM&A	Subtotal	PILS	Total	% of Total
Residential	46,067	90.85%	\$6,062,327	\$348,172	\$465,649	\$777,649	\$1,591,469	\$96,775	\$1,688,244	81.46%
GS<50kW	4,642	9.15%	\$2,114,683	\$121,450	\$162,429	\$78,361	\$362,241	\$22,027	\$384,268	18.54%
Total	50,709	100.00%	\$8,177,010	\$469,622	\$628,078	\$856,010	\$1,953,710	\$118,802	\$2,072,512	100.00%

## 9.0 Smart Meter Disposition Rider (SMDR)

Table 6 summarizes the revenue requirement associated with Smart Meters installed by CND to December 31, 2011, and the Smart Meter funding adders collected from May 1, 2006 and projected until April 30, 2012. CND is seeking approval of the Smart Meter costs in this Application. The Model attached as Exhibit B indicates the detailed calculation of the amount.

As shown in Table 6, (\$81,182) represents the difference between the revenue requirement to December 31, 2011 related to the Smart Meter costs to December 31, 2011 and the corresponding Smart Meter adders collected and projected to April 30, 2012.

Table 6 Revenue Requirement for SMDR

<u>Calculation of True-up Amount for SMDR</u>			
<b>Smart Meter Disposition Rider</b>			
Smart Meter Revenue Requirement - 2008			\$14,972.18
Smart Meter Revenue Requirement - 2009			\$245,720.22
Smart Meter Revenue Requirement - 2010			\$918,769.95
Smart Meter Revenue Requirement - 2011			\$1,313,738.50
Interest on OM&A			\$22,539.44
<b>Revenue Requirement Total</b>	A		\$2,515,740.29
Smart Meter Rate Adder	B		(\$2,525,969.79)
Carrying Costs	C		(\$70,952.02)
<b>Smart Meter True-up</b>	D=A+B+C		(\$81,181.52)
Metered Customers			50,709
Smart Meter Disposition Rate Rider			(\$0.07)
$\$81,181.52 / 50,709 / 24 = \$0.0667$ refundable to customers			

CND is proposing that the above amount of (\$81,182) be refunded to Residential and General Service <50 kWh customers as a monthly fixed amount based on the same methodology that is used to calculate the SMIRR rate rider. The proposed recovery time frame is over the 22 month period beginning July 1, 2012 to April 30, 2014. The calculation of the SMDR for each class is provided in Table 7.

Table 7 SMDR Rates

<u>Calculation of Smart Meter Disposition Rate Rider</u>				
Customer Class	# of Active Metered Customers at December 31, 2011	SMIRR Allocation (%)	True-up Amount Allocation	Monthly Charge (22 Months)
Residential	46,067	80.38%	(\$65,254)	(\$0.06)
GS<50kW	4,642	19.62%	(\$15,928)	(\$0.16)
<b>Total</b>	<b>50,709</b>	<b>100.00%</b>	<b>(\$81,182)</b>	

## 10.0 Smart Meter Incremental Rate Rider Calculation (SMIRR)

Table 8 indicates the revenue requirement that CND is seeking to recover related to Smart Meters installed to December 31, 2011 including forecasted costs after December 31, 2011. Table 9 provides details as to the forecasted OM&A costs. The revenue

requirement amount of \$2,072,512 represents how the revenue requirement would be determined in a Cost of Service application and is determined in the Model, attached as Appendix B.

CND is proposing that the SMIRR be allocated across both classes of customers benefiting from the installation of a Smart Meter as a monthly fixed charge. The allocation of the revenue requirement is provided in Table 10.

The resulting rates will continue until Smart Meters are included in the rate base in CND's next Cost of Service distribution rate application, anticipated at this time to be for rates effective May 1, 2014.

Table 8 SMIRR Revenue Requirement

Determination of SMIRR Revenue Requirement	
Total Return on Capital	\$469,622
Operating expenses	\$856,010
Amortization expenses	\$628,078
PILs	<u>\$118,802</u>
Total Revenue Requirement	<u>\$2,072,512</u>

The forecasted OM&A expenses for 2012 of \$856,010 are detailed as follows in Table 9. CND has included the monthly Smart Metering Charge of \$.81 that the IESO applied to the OEB to recover. The IESO Application was submitted March 23, 2012 and requests the \$.81 per RPP-eligible customer to be recovered from LDC's effective July 1, 2012.



Table 9 2012 OM&A Costs

Incremental OM&A Costs for 2012		
Description		Amount
2.3.1 Hardware Maintenance		\$190,095
2.5.1 Business Process redesign		\$13,690
2.5.2 Customer Communication		\$29,876
2.5.3 Program Management		\$41,069
2.5.6 Other AMI Expenses		\$581,280 *
<b>Total</b>		<b>\$856,010</b>

\* Other AMI Expenses include MDM/R fees, ODS fees, and AMI Test Environment (Powerstream Test RNI).

Table 10 SMIRR

Calculation of Smart Meter Incremental Revenue Rider				
Customer Class	# of Metered Customers at December 31, 2011	SMIRR Allocation	Annual Revenue Requirement Allocation	Monthly Charge (22 Months)
Residential	46,067	81.46%	\$1,688,268	\$1.67
GS<50kW	4,642	18.54%	\$384,244	\$3.76
<b>Total</b>	<b>50,709</b>	<b>100.00%</b>	<b>\$2,072,512</b>	

## 11.0 Rate Changes and Bill Impacts

Table 11 Rate Changes and Bill Impacts

Summary of Rate Changes July 1, 2012 to April 30, 2014 (22 Months)					
Customer Class	SMDR	SMIRR	Total	Less: Current Adder effective until April 30, 2012	Change
Residential	(\$0.06)	\$1.67	\$1.61	\$1.61	\$0.00
GS<50kW	(\$0.16)	\$3.76	\$3.60	\$1.61	\$1.99

Residential customers will experience no change in their rates, as the combination of the SMDR and the SMIRR is \$1.61 and the current Smart Meter Funding Adder is \$1.61.

The increase of \$1.99 for a General Service <50 kWh customer consuming 2,000 kWh for one month represents a 0.88% increase in their overall bill of \$229.08 applying rates effective May 1, 2011 including the Smart Meter Funding Adder of \$1.61.

## 12.0 Conclusion

CND respectfully submits that the costs incurred to fulfill its obligations under the provincially mandated Smart Meter initiative were and continue to be necessary and prudently incurred in accordance with Board guidelines. CND's cost per meter is comparable to the average cost per meter within the sector. The proposed riders are just and reasonable, the associated customer bill impacts are minimal, and it is appropriate that the Board approve these proposed riders at this time, for implementation July 1, 2012.

# **APPENDIX A**

Attestation of the Fairness Commissioner





# PRP International, Inc.

## *Fairness Advisory Services*

June 30, 2009

Mr. John Grotheer  
President / CEO  
Cambridge and North Dumfries Hydro Inc.  
1500 Bishop Street, P.O. Box 1060  
Cambridge, ON N1R 5X6

Dear Mr. Grotheer:

Subject: Confirmation of the Fairness Commissioner  
Cambridge and North Dumfries Hydro Inc.  
- KTI/Sensus Limited Contract Award  
Advanced Metering Infrastructure RFP, August 2007  
London Hydro & Consortium of LDCs Smartmetering Project

PRP International, Inc. is pleased to submit its Confirming Letter of the Fairness Commissioner for the noted negotiations and contracting phase of the LH AMI Request for Proposal (RFP) procurement. This judgment is being provided for the information and use of Cambridge and North Dumfries Hydro Inc. ("CNDHI"), in its administration of the contract awarded to its #1 ranked Proponent, KTI/Sensus Limited.

*"It is the judgment of PRP International, Inc., as the Fairness Commissioner engaged by CNDHI for the phase of negotiations and contract award pursuant to the Fairness Protocols issued August 2008, that the successful conclusion of negotiations and contract between Cambridge and North Dumfries Hydro Inc. and KTI/Sensus Limited, were undertaken in accordance with the principle for such negotiations and contract award set out in the RFP, issued August 14, 2007."*

A backgrounder and summary of the Fairness Protocols is attached and forms part of this Confirming Letter.

Yours truly,

Peter Sorensen  
President

Attachment: Negotiations and Contract Phase Backgrounder

203 - 8 Queen Street, Summerside, PEI C1N 0A6  
Direct telephone: 902.436.3930 Fax: 604-677-5409  
Email: [fairness@telus.net](mailto:fairness@telus.net)



# **BACKGROUNDER TO FAIRNESS CONFIRMATION / ATTESTATION**

## **Advanced Metering Infrastructure Procurement**

### **TO WHOM IT MAY CONCERN:**

#### **Background:**

- A Request for Proposal procurement transaction was conducted by London Hydro Inc., as the lead sponsoring Local Distribution Company (LDC) and with a consortia of another 63 LDCs, during the period August 2007 to July, 2008;
- The evaluation and selection phase of the RFP provided for the determination of the #1 and #2 ranked Proponents for each LDC;
- RFP Provision 7.5.14<sup>1</sup> provides the framework (principle) for negotiations and contracting based on the principle of "first right to negotiation and execution of a contract" being accorded to the ranked order of Proponents commencing with the highest ranked Proponent and proceeding in a consecutive order thereafter; and
- Each LDC was provided the evaluation results for their #1 and #2 ranked Proponents supported by the Attestation Letter of the Fairness Commissioner as to those rankings.

#### **Fairness Coverage Objective:**

Normally, fairness coverage terminates with the determination of the ranked Proponents following the evaluation and selection phase of the RFP; however, certain LDCs expressed a wish to secure additional fairness coverage during the subsequent phase of negotiations and contract award. The objective for this second phase fairness coverage is to assure that LDCs undertook a phase of negotiations and contracting that meets the RFP provisions of consecutive negotiations where required, e.g. with their top two ranked Proponents and in the event of unsuccessful negotiations with the #1 ranked Proponent, a subsequent contract award to the next ranked Proponent would be on an equitable basis as was the requirements in the negotiations with the #1 ranked Proponent.

---

#### **7.5.14 Final Contract Negotiations**

Any conditions and provisions that a bidder seeks shall be a part of this proposal. Notwithstanding, nothing herein shall be interpreted to prohibit London Hydro from introducing or modifying contract terms and conditions during negotiation of the final contract.

London Hydro has scheduled no more than two weeks for contract negotiations (if necessary), and expects the successful bidder to maintain a prompt and responsive negotiation to accomplish and complete final contract agreement within that time period. If contract negotiations exceed an interval acceptable to London Hydro, London Hydro retains the option to terminate negotiations and continue to the next apparent successful bidder, at the sole discretion of London Hydro. Said interval shall in no event be less than three weeks.



## **BACKGROUNDER TO FAIRNESS CONFIRMATION / ATTESTATION**

### **Advanced Metering Infrastructure Procurement**

#### **Fairness Protocols:**

- A Fairness Protocol was developed and issued to all LDCs, in August 2008 that set forth the best practices for fair consecutive-based negotiations and contract award.
  - The fundamental principle of the Protocol was the requirement for the LDC to establish the negotiations agenda for their top ranked Proponents and submit a copy to the Fairness Commissioner prior to engagement of their #1 ranked Proponent, i.e. the agenda would demonstrate a common statement of work, a LDC standard for pass/fail in their negotiations and the negotiation issues would only differ to the extent of the respective Proponent's technical solution being offered.

#### **Form of Fairness Confirmation / Attestation<sup>2</sup>:**

1. A confirmation of fair negotiations and contract award would be issued if the LDC's #1 ranked Proponent was awarded a contract; the original Attestation Letter remains in effect.
2. An Attestation of fair negotiations and contract award would be issued if the LDC determined that their #1 Proponent was to be set aside and the LDC successfully contracted with their next ranked Proponent, e.g. their #2; the original Attestation Letter is thus superseded by the Negotiations and Contract Award Attestation Letter.

#### **Local Distribution Company:**

Cambridge and North Dumfries Hydro Inc.

Mr. John Grotheer  
President / CEO  
Cambridge and North Dumfries Hydro Inc.  
1500 Bishop Street, P.O. Box 1060  
Cambridge, ON N1R 5X6

---

<sup>2</sup> Conditions on the rendering of this Confirmation / Attestation.

- The two Negotiations Agenda were provided by CNDHI, via its agent Util-Assist;
- Fairness Commissioner undertook no direct participation or oversight in the negotiations between CNDHI and their #1 ranked Proponent;
- The successful contract award was based on the CNDHI criteria and no independent analysis nor any comparison with the evaluation results of the RFP process was carried out by the Fairness Commissioner; and
- The confirmation of the Fairness Commissioner was based on the progress report(s) provided by CNDHI, via its agent Util-Assist.

# **APPENDIX B**

OEB 2012 Smart Meter Cost Recovery Model





Ontario Energy Board

## Smart Meter Model

## Choose Your Utility:

Cambridge and North Dumfries Hydro Inc.	•
Canadian Niagara Power Inc. - Eastern Ontario Power	•

## Application Contact Information

Name:	Grant Brooker
Title:	Manager, Regulatory Affairs
Phone Number:	519.621-8405 ext 2340
Email Address:	gbrooker@camhydro.com
We are applying for rates effective:	May 1, 2012
Last COS Re-based Year	2010

## Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

## Copyright

*This Workbook Model is protected by copyright and is being made available to you solely for the purpose of filing your application. You may use and copy this model for that purpose, and provide a copy of this model to any person that is advising or assisting you in that regard. Except as indicated above, any copying, reproduction, publication, sale, adaptation, translation, modification, reverse engineering or other use or dissemination of this model without the express written consent of the Ontario Energy Board is prohibited. If you provide a copy of this model to a person that is advising or assisting you in preparing the application or reviewing your draft rate order, you must ensure that the person understands and agrees to the restrictions noted above.*

*While this model has been provided in Excel format and is required to be filed with the applications, the onus remains on the applicant to ensure the accuracy of the data and the results. The use of any models and spreadsheets does not automatically imply Board approval. The onus is on the distributor to prepare, document and support its application. Board-issued Excel models and spreadsheets are offered to assist parties in providing the necessary information so as to facilitate an expeditious review of an application. The onus remains on the applicant to ensure the accuracy of the data and the results.*





Ontario Energy Board

## Smart Meter Model

### Cambridge and North Dumfries Hydro Inc.

Distributors must enter all incremental costs related to their smart meter program and all revenues recovered to date in the applicable tabs except for those costs (and associated revenues) for which the Board has approved on a final basis, i.e. capital costs have been included in rate base and OM&A costs in revenue requirement.

For 2012, distributors that have completed their deployments by the end of 2011 are not expected to enter any capital costs. However, for OM&A, regardless of whether a distributor has deployments in 2012, distributors should enter the forecasted OM&A for 2012 for all smart meters in service.

#### Smart Meter Capital Cost and Operational Expense Data

##### Smart Meter Installation Plan

##### Actual/Planned number of Smart Meters installed during the Calendar Year

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast	Total
Residential				7,205	38,304	558		46067
General Service < 50 kW				285	4,053	304		4642
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	7490	42357	862	0	50709
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	14.77%	98.30%	100.00%	0.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed								0
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	0	7490	42357	862	0	50709

#### 1 Capital Costs

##### 1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)

	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter				1,241,940	5,251,664	402,965		\$ 6,896,569
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter					423,522	0		\$ 423,522
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)									\$ -
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)									\$ -
<b>Total Advanced Metering Communications Devices (AMCD)</b>		\$ -	\$ -	\$ -	\$ 1,241,940	\$ 5,675,187	\$ 402,965	\$ -	\$ 7,320,092

##### 1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)

	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.2.1 Collectors	Smart Meter			148,665	276,076				\$ 424,741
1.2.2 Repeaters (may include radio licence, etc.)									\$ -
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)									\$ -
<b>Total Advanced Metering Regional Collector (AMRC) (Includes LAN)</b>		\$ -	\$ -	\$ 148,665	\$ 276,076	\$ -	\$ -	\$ -	\$ 424,741

### 1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

1.3.1 Computer Hardware

1.3.2 Computer Software

1.3.3 Computer Software Licences & Installation (includes hardware and software)  
(may include AS/400 disk space, backup and recovery computer, UPS, etc.)

**Total Advanced Metering Control Computer (AMCC)**

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
Computer Hardware				205,278		0		\$ 205,278
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ 205,278	\$ -	\$ -	\$ -	\$ 205,278

### 1.4 WIDE AREA NETWORK (WAN)

1.4.1 Activation Fees

**Total Wide Area Network (WAN)**

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

### 1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY

1.5.1 Customer Equipment (including repair of damaged equipment)

1.5.2 AMI Interface to CIS

1.5.3 Professional Fees

1.5.4 Integration

1.5.5 Program Management

1.5.6 Other AMI Capital

**Total Other AMI Capital Costs Related to Minimum Functionality**

**Total Capital Costs Related to Minimum Functionality**

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
Other Equipment								\$ -
Computer Software				22,550	11,890	8,753		\$ 43,193
Computer Hardware				39,459				\$ 39,459
Computer Hardware								\$ -
Computer Software			24,197	36,570	40,779	43,687		\$ 145,233
Computer Software						0		\$ -
	\$ -	\$ -	\$ 24,197	\$ 98,579	\$ 52,669	\$ 52,440	\$ -	\$ 227,885
	\$ -	\$ -	\$ 172,862	\$ 1,821,873	\$ 5,727,856	\$ 455,405	\$ -	\$ 8,177,996

### 1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY

(Please provide a descriptive title and identify nature of beyond minimum functionality costs)

1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06

1.6.2 Costs for deployment of smart meters to customers other than residential and small general service

1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.

**Total Capital Costs Beyond Minimum Functionality**

**Total Smart Meter Capital Costs**

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
Computer Software								\$ -
Applications Software								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ 172,862	\$ 1,821,873	\$ 5,727,856	\$ 455,405	\$ -	\$ 8,177,996

## 2 OM&A Expenses

### 2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)

2.1.1 Maintenance (may include meter reverification costs, etc.)

2.1.2 Other (please specify)

#### Total Incremental AMCD OM&A Costs

### 2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)

2.2.1 Maintenance

2.2.2 Other (please specify)

#### Total Incremental AMRC OM&A Costs

### 2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

2.3.1 Hardware Maintenance (may include server support, etc.)

2.3.2 Software Maintenance (may include maintenance support, etc.)

2.3.2 Other (please specify)

#### Total Incremental AMCC OM&A Costs

### 2.4 WIDE AREA NETWORK (WAN)

2.4.1 WAN Maintenance

2.4.2 Other (please specify)

#### Total Incremental AMRC OM&A Costs

### 2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY

2.5.1 Business Process Redesign

2.5.2 Customer Communication (may include project communication, etc.)

2.5.3 Program Management

2.5.4 Change Management (may include training, etc.)

2.5.5 Administration Costs

2.5.6 Other AMI Expenses

(please specify)

#### Total Other AMI OM&A Costs Related to Minimum Functionality

### TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY

### 2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY

(Please provide a descriptive title and identify nature of beyond minimum functionality costs)

2.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06

2.6.2 Costs for deployment of smart meters to customers other than residential and small general service

2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.

#### Total OM&A Costs Beyond Minimum Functionality

#### Total Smart Meter OM&A Costs

	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
				68,823	94,291	92,842	190,095	\$ 446,050
						0		\$ -
								\$ -
	\$ -	\$ -	\$ -	68,823	94,291	92,842	190,095	\$ 446,050
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
								\$ 13,690
				3,718	34,509	0	29,876	\$ 68,104
							41,069	\$ 41,069
								\$ -
			76	6,541	0			\$ 6,617
				741	104,817	21,357	581,280	\$ 708,196
	\$ -	\$ -	\$ 76	\$ 11,000	\$ 139,327	\$ 21,357	\$ 665,915	\$ 837,675
	\$ -	\$ -	\$ 76	\$ 79,823	\$ 233,617	\$ 114,199	\$ 856,010	\$ 1,283,726
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual		
								\$ -
								\$ -
								\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ 76	\$ 79,823	\$ 233,617	\$ 114,199	\$ 856,010	\$ 1,283,726

### 3 Aggregate Smart Meter Costs by Category

3.1	Capital									
3.1.1	Smart Meter	\$ -	\$ -	\$ 148,665	\$ 1,518,016	\$ 5,675,187	\$ 402,965	\$ -	\$ 7,744,833	
3.1.2	Computer Hardware	\$ -	\$ -	\$ -	\$ 244,737	\$ -	\$ -	\$ -	\$ 244,737	
3.1.3	Computer Software	\$ -	\$ -	\$ 24,197	\$ 59,120	\$ 52,669	\$ 52,440	\$ -	\$ 188,426	
3.1.4	Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
3.1.5	Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
3.1.6	Applications Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
3.1.7	Total Capital Costs	\$ -	\$ -	\$ 172,862	\$ 1,821,873	\$ 5,727,856	\$ 455,405	\$ -	\$ 8,177,996	
3.2	OM&A Costs									
3.2.1	Total OM&A Costs	\$ -	\$ -	\$ 76	\$ 79,823	\$ 233,617	\$ 114,199	\$ 856,010	\$ 1,283,726	



## Cambridge and North Dumfries Hydro Inc.

	2006	2007
<b>Cost of Capital</b>		
<b>Capital Structure<sup>1</sup></b>		
Deemed Short-term Debt Capitalization		
Deemed Long-term Debt Capitalization	50.0%	50.0%
Deemed Equity Capitalization	50.0%	50.0%
Preferred Shares		
<b>Total</b>	100.0%	100.0%
<b>Cost of Capital Parameters</b>		
Deemed Short-term Debt Rate		
Long-term Debt Rate (actual/embedded/deemed) <sup>2</sup>	4.99%	4.99%
Target Return on Equity (ROE)	9.0%	9.00%
Return on Preferred Shares		
<b>WACC</b>	7.00%	7.00%
<b>Working Capital Allowance</b>		
Working Capital Allowance Rate	15.0%	15.0%
<i>(% of the sum of Cost of Power + controllable expenses)</i>		
<b>Taxes/PILs</b>		
Aggregate Corporate Income Tax Rate	36.12%	36.12%
Capital Tax (until July 1st, 2010)	0.30%	0.225%
<b>Depreciation Rates</b>		
<i>(expressed as expected useful life in years)</i>		
Smart Meters - years	15	15
- rate (%)	6.67%	6.67%
Computer Hardware - years	5	5
- rate (%)	20.00%	20.00%
Computer Software - years	3	3
- rate (%)	33.33%	33.33%

Tools & Equipment - years	10	10
- rate (%)	10.00%	10.00%
Other Equipment - years	10	10
- rate (%)	10.00%	10.00%

#### CCA Rates

Smart Meters - CCA Class	47	47
Smart Meters - CCA Rate	8%	8%
Computer Equipment - CCA Class	45	50
Computer Equipment - CCA Rate	45%	55%
General Equipment - CCA Class	8	8
General Equipment - CCA Rate	20%	20%
Applications Software - CCA Class		
Applications Software - CCA Rate		

#### Assumptions

- <sup>1</sup> Planned smart meter installations occur evenly throughout the year.
- <sup>2</sup> Fiscal calendar year (January 1 to December 31) used.
- <sup>3</sup> Amortization is done on a straight line basis and has the "half-year" rule applied.



Ontario Energy Board

## Smart Meter Model



2008	2009	2010	2011	2012 and later
0.0%	0.0%	4.0%	4.0%	4.0%
53.3%	56.7%	56.0%	56.0%	56.0%
46.7%	43.3%	40.0%	40.0%	40.0%
100.0%	100.0%	100.0%	100.0%	100.0%
0.00%	0.00%	2.07%	2.07%	2.07%
4.99%	4.99%	4.99%	4.99%	4.99%
9.00%	9.00%	9.85%	9.85%	9.85%
6.86%	6.73%	6.82%	6.82%	6.82%
15.0%	15.0%	15.0%	15.0%	15.0%
33.50%	33.00%	31.00%	28.25%	26.25%
0.225%	0.225%	0.075%	0.00%	0.00%
15	15	15	15	15
6.67%	6.67%	6.67%	6.67%	6.67%
5	5	5	5	5
20.00%	20.00%	20.00%	20.00%	20.00%
3	3	3	3	3
33.33%	33.33%	33.33%	33.33%	33.33%

10	10	10	10	10
10.00%	10.00%	10.00%	10.00%	10.00%
10	10	10	10	10
10.00%	10.00%	10.00%	10.00%	10.00%

47	47	47	47	47
8%	8%	8%	8%	8%

50	50	50	50	50
55%	55%	100%	100%	100%

8	8	8	8	8
20%	20%	20%	20%	20%






Ontario Energy Board

Smart Meter Model

Cambridge and North Dumfries Hydro Inc.

Net Fixed Assets - Smart Meters

	2006	2007	2008	2009	2010	2011
<b>Gross Book Value</b>						
Opening Balance		\$ -	\$ -	\$ 148,665	\$ 1,666,681	\$ 7,341,868
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ 148,665	\$ 1,518,016	\$ 5,675,187	\$ 402,965
Retirements/Removals (if applicable)						
Closing Balance	\$ -	\$ -	\$ 148,665	\$ 1,666,681	\$ 7,341,868	\$ 7,744,833
<b>Accumulated Depreciation</b>						
Opening Balance		\$ -	\$ -	-\$ 4,956	-\$ 65,467	-\$ 365,752
Amortization expense during year	\$ -	\$ -	-\$ 4,956	-\$ 60,512	-\$ 300,285	-\$ 502,890
Retirements/Removals (if applicable)						
Closing Balance	\$ -	\$ -	-\$ 4,956	-\$ 65,467	-\$ 365,752	-\$ 868,642
<b>Net Book Value</b>						
Opening Balance	\$ -	\$ -	\$ -	\$ 143,710	\$ 1,601,214	\$ 6,976,116
Closing Balance	\$ -	\$ -	\$ 143,710	\$ 1,601,214	\$ 6,976,116	\$ 6,876,191
Average Net Book Value	\$ -	\$ -	\$ 71,855	\$ 872,462	\$ 4,288,665	\$ 6,926,153

Net Fixed Assets - Computer Hardware

<b>Gross Book Value</b>						
Opening Balance		\$ -	\$ -	\$ -	\$ 244,737	\$ 244,737
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 244,737	\$ -	\$ -
Retirements/Removals (if applicable)						
Closing Balance	\$ -	\$ -	\$ -	\$ 244,737	\$ 244,737	\$ 244,737
<b>Accumulated Depreciation</b>						
Opening Balance	\$ -	\$ -	\$ -	\$ -	-\$ 24,474	-\$ 73,421
Amortization expense during year	\$ -	\$ -	\$ -	-\$ 24,474	-\$ 48,947	-\$ 48,947
Retirements/Removals (if applicable)						
Closing Balance	\$ -	\$ -	\$ -	-\$ 24,474	-\$ 73,421	-\$ 122,369
<b>Net Book Value</b>						
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 220,263	\$ 171,316
Closing Balance	\$ -	\$ -	\$ -	\$ 220,263	\$ 171,316	\$ 122,369
Average Net Book Value	\$ -	\$ -	\$ -	\$ 110,132	\$ 195,790	\$ 146,842

Net Fixed Assets - Computer Software (including Applications Software)

<b>Gross Book Value</b>						
Opening Balance		\$ -	\$ -	\$ 24,197	\$ 83,317	\$ 135,986
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ 24,197	\$ 59,120	\$ 52,669	\$ 52,440
Retirements/Removals (if applicable)						
Closing Balance	\$ -	\$ -	\$ 24,197	\$ 83,317	\$ 135,986	\$ 188,426
<b>Accumulated Depreciation</b>						
Opening Balance	\$ -	\$ -	\$ -	-\$ 4,033	-\$ 21,952	-\$ 58,502
Amortization expense during year	\$ -	\$ -	-\$ 4,033	-\$ 17,919	-\$ 36,551	-\$ 54,069
Retirements/Removals (if applicable)						
Closing Balance	\$ -	\$ -	-\$ 4,033	-\$ 21,952	-\$ 58,502	-\$ 112,571
<b>Net Book Value</b>						
Opening Balance	\$ -	\$ -	\$ -	\$ 20,164	\$ 61,365	\$ 77,484
Closing Balance	\$ -	\$ -	\$ 20,164	\$ 61,365	\$ 77,484	\$ 75,855
Average Net Book Value	\$ -	\$ -	\$ 10,082	\$ 40,765	\$ 69,424	\$ 76,669

**Net Fixed Assets - Tools and Equipment****Gross Book Value**

Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)						
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**Accumulated Depreciation**

Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)						
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**Net Book Value**

Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**Net Fixed Assets - Other Equipment****Gross Book Value**

Opening Balance		\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)						
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**Accumulated Depreciation**

Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortization expense during year	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)						
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**Net Book Value**

Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Average Net Book Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



2012 and later

\$	7,744,833
\$	-
\$	7,744,833

-\$	868,642
-\$	516,322
-\$	1,384,964

\$	6,876,191
\$	6,359,869
\$	6,618,030

\$	244,737
\$	-
\$	244,737

-\$	122,369
-\$	48,947
-\$	171,316

\$	122,369
\$	73,421
\$	97,895

\$	188,426
\$	-
\$	188,426

-\$	112,571
-\$	62,809
-\$	175,380

\$	75,855
\$	13,046
\$	44,451

\$	-
\$	-
\$	-

\$	-
\$	-
\$	-

\$	-
\$	-
\$	-

\$	-
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\$	-
\$	-
\$	-

\$	-
\$	-
\$	-



Ontario Energy Board

Smart Meter Model

Cambridge and North Dumfries Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and Later
<b>Average Net Fixed Asset Values (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ 71,855	\$ 872,462	\$ 4,288,665	\$ 6,926,153	\$ 6,618,030
Computer Hardware	\$ -	\$ -	\$ -	\$ 110,132	\$ 195,790	\$ 146,842	\$ 97,895
Computer Software	\$ -	\$ -	\$ 10,082	\$ 40,765	\$ 69,424	\$ 76,669	\$ 44,451
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Net Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 81,937</b>	<b>\$ 1,023,358</b>	<b>\$ 4,553,879</b>	<b>\$ 7,149,665</b>	<b>\$ 6,760,375</b>
<b>Working Capital</b>							
Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ 76	\$ 79,823	\$ 233,617	\$ 114,199	\$ 856,010
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ 11	\$ 11,973	\$ 35,043	\$ 17,130	\$ 128,402
<b>Incremental Smart Meter Rate Base</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 81,948</b>	<b>\$ 1,035,332</b>	<b>\$ 4,588,921</b>	<b>\$ 7,166,795</b>	<b>\$ 6,888,777</b>
<b>Return on Rate Base</b>							
<b>Capital Structure</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 183,557	\$ 286,672	\$ 275,551
Deemed Long Term Debt	\$ -	\$ -	\$ 43,678	\$ 587,033	\$ 2,569,796	\$ 4,013,405	\$ 3,857,715
Equity	\$ -	\$ -	\$ 38,270	\$ 448,299	\$ 1,835,569	\$ 2,866,718	\$ 2,755,511
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capitalization</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 81,948</b>	<b>\$ 1,035,332</b>	<b>\$ 4,588,921</b>	<b>\$ 7,166,795</b>	<b>\$ 6,888,777</b>
<b>Return on</b>							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 3,800	\$ 5,934	\$ 5,704
Deemed Long Term Debt	\$ -	\$ -	\$ 2,180	\$ 29,293	\$ 128,233	\$ 200,269	\$ 192,500
Equity	\$ -	\$ -	\$ 3,444	\$ 40,347	\$ 180,804	\$ 282,372	\$ 271,418
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Return on Capital</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 5,624</b>	<b>\$ 69,640</b>	<b>\$ 312,836</b>	<b>\$ 488,575</b>	<b>\$ 469,622</b>
<b>Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 76</b>	<b>\$ 79,823</b>	<b>\$ 233,617</b>	<b>\$ 114,199</b>	<b>\$ 856,010</b>
<b>Amortization Expenses (from Sheet 4)</b>							
Smart Meters	\$ -	\$ -	\$ 4,956	\$ 60,512	\$ 300,285	\$ 502,890	\$ 516,322
Computer Hardware	\$ -	\$ -	\$ -	\$ 24,474	\$ 48,947	\$ 48,947	\$ 48,947
Computer Software	\$ -	\$ -	\$ 4,033	\$ 17,919	\$ 36,551	\$ 54,069	\$ 62,809
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Amortization Expense in Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 8,988</b>	<b>\$ 102,904</b>	<b>\$ 385,783</b>	<b>\$ 605,906</b>	<b>\$ 628,078</b>
<b>Incremental Revenue Requirement before Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 14,688</b>	<b>\$ 252,367</b>	<b>\$ 932,236</b>	<b>\$ 1,208,680</b>	<b>\$ 1,953,710</b>
<b>Calculation of Taxable Income</b>							
Incremental Operating Expenses	\$ -	\$ -	\$ 76	\$ 79,823	\$ 233,617	\$ 114,199	\$ 856,010
Amortization Expense	\$ -	\$ -	\$ 8,988	\$ 102,904	\$ 385,783	\$ 605,906	\$ 628,078
Interest Expense	\$ -	\$ -	\$ 2,180	\$ 29,293	\$ 132,032	\$ 206,203	\$ 198,204
<b>Net Income for Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,444</b>	<b>\$ 40,347</b>	<b>\$ 180,804</b>	<b>\$ 282,372</b>	<b>\$ 271,418</b>
<b>Grossed-up Taxes/PILs (from Sheet 7)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 284.00</b>	<b>\$ 6,646.83</b>	<b>\$ 13,466.14</b>	<b>\$ 105,058.36</b>	<b>\$ 118,801.40</b>
<b>Revenue Requirement, including Grossed-up Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 14,972</b>	<b>\$ 245,720</b>	<b>\$ 918,770</b>	<b>\$ 1,313,739</b>	<b>\$ 2,072,512</b>



Ontario Energy Board

Smart Meter Model

Cambridge and North Dumfries Hydro Inc.

## For PILs Calculation

### UCC - Smart Meters

	2006 Audited Actua	2007 Audited Actua	2008 Audited Actua	2009 Audited Actua	2010 Audited Actua	2011 Audited Actua	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ 142,718.40	\$ 1,588,596.29	\$ 6,909,687.68	\$ 6,743,759.30
Capital Additions	\$ -	\$ -	\$ 148,665.00	\$ 1,518,016.00	\$ 5,675,186.56	\$ 402,965.24	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ 148,665.00	\$ 1,660,734.40	\$ 7,263,782.85	\$ 7,312,652.92	\$ 6,743,759.30
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ 74,332.50	\$ 759,008.00	\$ 2,837,593.28	\$ 201,482.62	\$ -
Reduced UCC	\$ -	\$ -	\$ 74,332.50	\$ 901,726.40	\$ 4,426,189.57	\$ 7,111,170.30	\$ 6,743,759.30
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ -	\$ 5,946.60	\$ 72,138.11	\$ 354,095.17	\$ 568,893.62	\$ 539,500.74
Closing UCC	\$ -	\$ -	\$ 142,718.40	\$ 1,588,596.29	\$ 6,909,687.68	\$ 6,743,759.30	\$ 6,204,258.55

### UCC - Computer Equipment

	2006 Audited Actua	2007 Audited Actua	2008 Audited Actua	2009 Audited Actua	2010 Audited Actua	2011 Audited Actua	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ 17,542.83	\$ 228,190.60	\$ 26,334.59	\$ 26,220.02
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ 244,737.00	\$ -	\$ -	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ 24,197.00	\$ 59,120.00	\$ 52,669.18	\$ 52,440.03	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ 24,197.00	\$ 321,399.83	\$ 280,859.78	\$ 78,774.62	\$ 26,220.02
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ 12,098.50	\$ 151,928.50	\$ 26,334.59	\$ 26,220.02	\$ -
Reduced UCC	\$ -	\$ -	\$ 12,098.50	\$ 169,471.33	\$ 254,525.19	\$ 52,554.61	\$ 26,220.02
CCA Rate Class	45	50	50	50	50	50	50
CCA Rate	45%	55%	55%	55%	100%	100%	100%
CCA	\$ -	\$ -	\$ 6,654.18	\$ 93,209.23	\$ 254,525.19	\$ 52,554.61	\$ 26,220.02
Closing UCC	\$ -	\$ -	\$ 17,542.83	\$ 228,190.60	\$ 26,334.59	\$ 26,220.02	\$ -

### UCC - General Equipment

	2006 Audited Actua	2007 Audited Actua	2008 Audited Actua	2009 Audited Actua	2010 Audited Actua	2011 Audited Actua	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Additions Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA Rate Class	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Closing UCC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



## PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
<b>INCOME TAX</b>							
Net Income	\$ -	\$ -	\$ 3,444.28	\$ 40,346.87	\$ 180,803.51	\$ 282,371.71	\$ 271,417.81
Amortization	\$ -	\$ -	\$ 8,988.33	\$ 102,904.23	\$ 385,782.88	\$ 605,906.14	\$ 628,078.32
CCA - Smart Meters	\$ -	\$ -	\$ 5,946.60	\$ 72,138.11	\$ 354,095.17	\$ 568,893.62	\$ 539,500.74
CCA - Computers	\$ -	\$ -	\$ 6,654.18	\$ 93,209.23	\$ 254,525.19	\$ 52,554.61	\$ 26,220.02
CCA - Applications Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ -	\$ 168.16	\$ 22,096.24	\$ 42,033.96	\$ 266,829.63	\$ 333,775.37
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Income Taxes Payable	\$ -	\$ -	\$ 56.33	\$ 7,291.76	\$ 13,030.53	\$ 75,379.37	\$ 87,616.03
<b>ONTARIO CAPITAL TAX</b>							
Smart Meters	\$ -	\$ -	\$ 143,709.50	\$ 1,601,213.97	\$ 6,976,115.57	\$ 6,876,190.80	\$ 6,359,868.62
Computer Hardware	\$ -	\$ -	\$ -	\$ 220,263.30	\$ 171,315.90	\$ 122,368.50	\$ 73,421.10
Computer Software (Including Application Software)	\$ -	\$ -	\$ 20,164.17	\$ 61,365.17	\$ 77,483.82	\$ 75,855.12	\$ 13,046.38
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ -	\$ 163,873.67	\$ 1,882,842.43	\$ 7,224,915.29	\$ 7,074,414.42	\$ 6,446,336.09
Less: Exemption							
Deemed Taxable Capital	\$ -	\$ -	\$ 163,873.67	\$ 1,882,842.43	\$ 7,224,915.29	\$ 7,074,414.42	\$ 6,446,336.09
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	\$ -	\$ -	\$ 368.72	\$ 4,236.40	\$ 5,418.69	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ -	\$ 56.33	\$ 7,291.76	\$ 13,030.53	\$ 75,379.37	\$ 87,616.03
Change in OCT	\$ -	\$ -	\$ 368.72	\$ 4,236.40	\$ 5,418.69	\$ -	\$ -
PILs	\$ -	\$ -	\$ 312.38	\$ 3,055.36	\$ 7,611.84	\$ 75,379.37	\$ 87,616.03
<b>Gross Up PILs</b>							
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%
Change in Income Taxes Payable	\$ -	\$ -	\$ 84.71	\$ 10,883.22	\$ 18,884.82	\$ 105,058.36	\$ 118,801.40
Change in OCT	\$ -	\$ -	\$ 368.72	\$ 4,236.40	\$ 5,418.69	\$ -	\$ -
PILs	\$ -	\$ -	\$ 284.00	\$ 6,646.83	\$ 13,466.14	\$ 105,058.36	\$ 118,801.40







Ontario Energy Board

Smart Meter Model

Cambridge and North Dumfries Hydro Inc.

This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	Funding Adder Revenues	Interest Rate	Interest	Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
2006 Q1			Jan-06	2006	Q1	\$ -	\$ -	0.00%	\$ -	\$ -		
2006 Q2	4.14%	4.68%	Feb-06	2006	Q1	\$ -	\$ -	0.00%	\$ -	\$ -		
2006 Q3	4.59%	5.05%	Mar-06	2006	Q1	\$ -	\$ -	0.00%	\$ -	\$ -		
2006 Q4	4.59%	4.72%	Apr-06	2006	Q2	\$ -	\$ -	4.14%	\$ -	\$ -		
2007 Q1	4.59%	4.72%	May-06	2006	Q2	\$ -	\$ -	4.14%	\$ -	\$ -		
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	\$ -	\$ 5,948.57	4.14%	\$ -	\$ 5,948.57		\$ 0.27
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	\$ 5,948.57	\$ 11,259.88	4.59%	\$ 22.75	\$ 17,231.20		\$ 0.27
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	\$ 17,208.45	\$ 13,331.09	4.59%	\$ 65.82	\$ 30,605.36		\$ 0.27
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	\$ 30,539.54	\$ 12,382.03	4.59%	\$ 116.81	\$ 43,038.38		\$ 0.27
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	\$ 42,921.57	\$ 12,752.32	4.59%	\$ 164.18	\$ 55,838.07		\$ 0.27
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	\$ 55,673.89	\$ 13,722.44	4.59%	\$ 212.95	\$ 69,609.28		\$ 0.27
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	\$ 69,396.33	\$ 12,190.40	4.59%	\$ 265.44	\$ 81,852.17	\$ 82,434.68	\$ 0.27
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	\$ 81,586.73	\$ 13,302.95	4.59%	\$ 312.07	\$ 95,201.75		\$ 0.27
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	\$ 94,889.68	\$ 12,840.62	4.59%	\$ 362.95	\$ 108,093.25		\$ 0.27
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	\$ 107,730.30	\$ 13,337.47	4.59%	\$ 412.07	\$ 121,479.84		\$ 0.27
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	\$ 121,067.77	\$ 12,805.23	4.59%	\$ 463.08	\$ 134,336.08		\$ 0.27
2010 Q1	0.55%	4.34%	May-07	2007	Q2	\$ 133,873.00	\$ 13,399.27	4.59%	\$ 512.06	\$ 147,784.33		\$ 0.27
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	\$ 147,272.27	\$ 12,819.77	4.59%	\$ 563.32	\$ 160,655.36		\$ 0.27
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	\$ 160,092.04	\$ 13,362.81	4.59%	\$ 612.35	\$ 174,067.20		\$ 0.27
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	\$ 173,454.85	\$ 13,439.51	4.59%	\$ 663.46	\$ 187,557.82		\$ 0.27
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	\$ 186,894.36	\$ 12,728.90	4.59%	\$ 714.87	\$ 200,338.13		\$ 0.27
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	\$ 199,623.26	\$ 12,778.15	5.14%	\$ 855.05	\$ 213,256.46		\$ 0.27
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	\$ 212,401.41	\$ 14,663.43	5.14%	\$ 909.79	\$ 227,974.63		\$ 0.27
2011 Q4	1.47%	4.29%	Dec-07	2007	Q4	\$ 227,064.84	\$ 11,519.79	5.14%	\$ 972.59	\$ 239,557.22	\$ 164,351.56	\$ 0.27
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ 238,584.63	\$ 13,451.80	5.14%	\$ 1,021.94	\$ 253,058.37		\$ 0.27
2012 Q2			Feb-08	2008	Q1	\$ 252,036.43	\$ 12,869.84	5.14%	\$ 1,079.56	\$ 265,985.83		\$ 0.27
2012 Q3			Mar-08	2008	Q1	\$ 264,906.27	\$ 13,462.14	5.14%	\$ 1,134.68	\$ 279,503.09		\$ 0.27
2012 Q4			Apr-08	2008	Q2	\$ 278,368.41	\$ 12,898.11	4.08%	\$ 946.45	\$ 292,212.97		\$ 0.27
			May-08	2008	Q2	\$ 291,266.52	\$ 13,479.94	4.08%	\$ 990.31	\$ 305,736.77		\$ 0.27
			Jun-08	2008	Q2	\$ 304,746.46	\$ 12,904.41	4.08%	\$ 1,036.14	\$ 318,687.01		\$ 0.27
			Jul-08	2008	Q3	\$ 317,650.87	\$ 14,058.56	3.35%	\$ 886.78	\$ 332,596.21		\$ 0.27
			Aug-08	2008	Q3	\$ 331,709.43	\$ 12,282.61	3.35%	\$ 926.02	\$ 344,918.06		\$ 0.27
			Sep-08	2008	Q3	\$ 343,992.04	\$ 13,478.54	3.35%	\$ 960.31	\$ 358,430.89		\$ 0.27
			Oct-08	2008	Q4	\$ 357,470.58	\$ 13,517.65	3.35%	\$ 997.94	\$ 371,986.17		\$ 0.27
			Nov-08	2008	Q4	\$ 370,988.23	\$ 12,830.00	3.35%	\$ 1,035.68	\$ 384,853.91		\$ 0.27
			Dec-08	2008	Q4	\$ 383,818.23	\$ 12,881.96	3.35%	\$ 1,071.49	\$ 397,771.68	\$ 170,202.86	\$ 0.27
			Jan-09	2009	Q1	\$ 396,700.19	\$ 13,492.44	2.45%	\$ 809.93	\$ 411,002.56		\$ 0.27
			Feb-09	2009	Q1	\$ 410,192.63	\$ 12,950.58	2.45%	\$ 837.48	\$ 423,980.69		\$ 0.27
			Mar-09	2009	Q1	\$ 423,143.21	\$ 13,614.22	2.45%	\$ 863.92	\$ 437,621.35		\$ 0.27
			Apr-09	2009	Q2	\$ 436,757.43	\$ 13,063.22	1.00%	\$ 363.96	\$ 450,184.61		\$ 0.27
			May-09	2009	Q2	\$ 449,820.65	\$ 14,515.05	1.00%	\$ 374.85	\$ 464,710.55		\$ 1.00
			Jun-09	2009	Q2	\$ 464,335.70	\$ 29,612.93	1.00%	\$ 386.95	\$ 494,335.58		\$ 1.00
			Jul-09	2009	Q3	\$ 493,948.63	\$ 47,641.87	0.55%	\$ 226.39	\$ 541,816.89		\$ 1.00
			Aug-09	2009	Q3	\$ 541,590.50	\$ 48,571.89	0.55%	\$ 248.23	\$ 590,410.62		\$ 1.00
			Sep-09	2009	Q3	\$ 590,162.39	\$ 50,239.15	0.55%	\$ 270.49	\$ 640,672.03		\$ 1.00
			Oct-09	2009	Q4	\$ 640,401.54	\$ 48,984.55	0.55%	\$ 293.52	\$ 689,679.61		\$ 1.00
			Nov-09	2009	Q4	\$ 689,386.09	\$ 50,295.98	0.55%	\$ 315.97	\$ 739,998.04		\$ 1.00
			Dec-09	2009	Q4	\$ 739,682.07	\$ 49,276.46	0.55%	\$ 339.02	\$ 789,297.55	\$ 397,589.05	\$ 1.00
			Jan-10	2010	Q1	\$ 788,958.53	\$ 43,946.09	0.55%	\$ 361.61	\$ 833,266.23		\$ 1.00
			Feb-10	2010	Q1	\$ 832,904.62	\$ 46,395.05	0.55%	\$ 381.75	\$ 879,681.42		\$ 1.00
			Mar-10	2010	Q1	\$ 879,299.67	\$ 53,866.70	0.55%	\$ 403.01	\$ 933,569.38		\$ 1.00
			Apr-10	2010	Q2	\$ 933,166.37	\$ 48,866.73	0.55%	\$ 427.70	\$ 982,460.80		\$ 1.00
			May-10	2010	Q2	\$ 982,033.10	\$ 45,979.77	0.55%	\$ 450.10	\$ 1,028,462.97		\$ 1.00
			Jun-10	2010	Q2	\$ 1,028,012.87	\$ 54,553.56	0.55%	\$ 471.17	\$ 1,083,037.60		\$ 1.00
			Jul-10	2010	Q3	\$ 1,082,566.43	\$ 51,389.09	0.89%	\$ 802.90	\$ 1,134,758.42		\$ 1.00
			Aug-10	2010	Q3	\$ 1,133,955.52	\$ 49,175.35	0.89%	\$ 841.02	\$ 1,183,971.89		\$ 1.00
			Sep-10	2010	Q3	\$ 1,183,130.87	\$ 51,629.70	0.89%	\$ 877.49	\$ 1,235,638.06		\$ 1.00
			Oct-10	2010	Q4	\$ 1,234,760.57	\$ 46,764.24	1.20%	\$ 1,234.76	\$ 1,282,759.57		\$ 1.00
			Nov-10	2010	Q4	\$ 1,281,524.81	\$ 53,904.81	1.20%	\$ 1,281.52	\$ 1,336,711.14		\$ 1.00
			Dec-10	2010	Q4	\$ 1,335,429.62	\$ 49,184.69	1.20%	\$ 1,335.43	\$ 1,385,949.74	\$ 604,524.24	\$ 1.00
			Jan-11	2011	Q1	\$ 1,384,614.31	\$ 51,831.41	1.47%	\$ 1,696.15	\$ 1,438,141.87		\$ 1.00
			Feb-11	2011	Q1	\$ 1,436,445.72	\$ 47,379.20	1.47%	\$ 1,759.65	\$ 1,485,584.57		\$ 1.00
			Mar-11	2011	Q1	\$ 1,483,824.92	\$ 56,749.56	1.47%	\$ 1,817.69	\$ 1,542,392.17		\$ 1.00
			Apr-11	2011	Q2	\$ 1,540,574.48	\$ 45,213.39	1.47%	\$ 1,887.20	\$ 1,587,675.07		\$ 1.00
			May-11	2011	Q2	\$ 1,585,787.87	\$ 44,543.94	1.47%	\$ 1,942.59	\$ 1,632,274.40		\$ 1.61
			Jun-11	2011	Q2	\$ 1,630,331.81	\$ 68,810.40	1.47%	\$ 1,997.16	\$ 1,701,139.37		\$ 1.61
			Jul-11	2011	Q3	\$ 1,699,142.21	\$ 59,497.16	1.47%	\$ 2,081.45	\$ 1,760,720.82		\$ 1.61
			Aug-11	2011	Q3	\$ 1,758,639.37	\$ 107,629.14	1.47%	\$ 2,154.33	\$ 1,868,422.84		\$ 1.61
			Sep-11	2011	Q3	\$ 1,866,268.51	\$ 84,089.21	1.47%	\$ 2,286.18	\$ 1,952,643.90		\$ 1.61
			Oct-11	2011	Q4	\$ 1,950,357.72	\$ 77,006.55	1.47%	\$ 2,389.19	\$ 2,029,753.46		\$ 1.61
			Nov-11	2011	Q4	\$ 2,027,364.27	\$ 87,721.70	1.47%	\$ 2,483.52	\$ 2,117,569.49		\$ 1.61
			Dec-11	2011	Q4	\$ 2,115,085.97	\$ 77,190.94	1.47%	\$ 2,590.98	\$ 2,194,867.89	\$ 832,748.69	\$ 1.61
			Jan-12	2012	Q1	\$ 2,192,276.91	\$ 91,554.11	1.47%	\$ 2,685.54	\$ 2,286,516.56		\$ 1.61
			Feb-12	2012	Q1	\$ 2,283,831.02	\$ 82,138.77	1.47%	\$ 2,797.69	\$ 2,368,767.48		\$ 1.61



This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP				Opening Balance	Funding Adder	Interest	Interest	Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
			Date	Year	Quarter	(Principal)	Revenues	Rate				
			Mar-12	2012	Q1	\$ 2,365,969.79	\$ 80,000.00	1.47%	\$ 2,898.31	\$ 2,448,868.10		\$ 1.61
			Apr-12	2012	Q2	\$ 2,445,969.79	\$ 80,000.00	1.47%	\$ 2,996.31	\$ 2,528,966.10		\$ 1.61
			May-12	2012	Q2	\$ 2,525,969.79	\$ -	0.00%	\$ -	\$ 2,525,969.79		
			Jun-12	2012	Q2	\$ 2,525,969.79	\$ -	0.00%	\$ -	\$ 2,525,969.79		
			Jul-12	2012	Q3	\$ 2,525,969.79	\$ -	0.00%	\$ -	\$ 2,525,969.79		
			Aug-12	2012	Q3	\$ 2,525,969.79	\$ -	0.00%	\$ -	\$ 2,525,969.79		
			Sep-12	2012	Q3	\$ 2,525,969.79	\$ -	0.00%	\$ -	\$ 2,525,969.79		
			Oct-12	2012	Q4	\$ 2,525,969.79	\$ -	0.00%	\$ -	\$ 2,525,969.79		
			Nov-12	2012	Q4	\$ 2,525,969.79	\$ -	0.00%	\$ -	\$ 2,525,969.79		
			Dec-12	2012	Q4	\$ 2,525,969.79	\$ -	0.00%	\$ -	\$ 2,525,969.79	\$ 345,070.73	
Total Funding Adder Revenues Collected						\$ 2,525,969.79			\$ 70,952.02	\$ 2,596,921.81	\$ 2,596,921.81	



## Cambridge and North Dumfries Hydro Inc.

This worksheet calculates the interest on OM&A and amortization/depr

Account 1556 - Su

Prescribed Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)
2006 Q1	0.00%	0.00%	Jan-06	2006	Q1	\$ -
2006 Q2	4.14%	4.68%	Feb-06	2006	Q1	-
2006 Q3	4.59%	5.05%	Mar-06	2006	Q1	-
2006 Q4	4.59%	4.72%	Apr-06	2006	Q2	-
2007 Q1	4.59%	4.72%	May-06	2006	Q2	-
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	-
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	-
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	-
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	-
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	-
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	-
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	-
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	-
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	-
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	-
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	-
2010 Q1	0.55%	4.34%	May-07	2007	Q2	-
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	-
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	-
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	-
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	-
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	-
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	-

2011 Q4	1.47%	4.29%		Dec-07	2007	Q4	-
2012 Q1	1.47%	4.29%		Jan-08	2008	Q1	-
2012 Q2	0.00%	4.29%		Feb-08	2008	Q1	-
2012 Q3	0.00%	4.29%		Mar-08	2008	Q1	-
2012 Q4	0.00%	4.29%		Apr-08	2008	Q2	-
				May-08	2008	Q2	-
				Jun-08	2008	Q2	-
				Jul-08	2008	Q3	-
				Aug-08	2008	Q3	-
				Sep-08	2008	Q3	-
				Oct-08	2008	Q4	-
				Nov-08	2008	Q4	-
				Dec-08	2008	Q4	-
				Jan-09	2009	Q1	-
				Feb-09	2009	Q1	-
				Mar-09	2009	Q1	-
				Apr-09	2009	Q2	-
				May-09	2009	Q2	-
				Jun-09	2009	Q2	-
				Jul-09	2009	Q3	-
				Aug-09	2009	Q3	-
				Sep-09	2009	Q3	-
				Oct-09	2009	Q4	-
				Nov-09	2009	Q4	-
				Dec-09	2009	Q4	-
				Jan-10	2010	Q1	-
				Feb-10	2010	Q1	-
				Mar-10	2010	Q1	-
				Apr-10	2010	Q2	-
				May-10	2010	Q2	-
				Jun-10	2010	Q2	-
				Jul-10	2010	Q3	-
				Aug-10	2010	Q3	-
				Sep-10	2010	Q3	-
				Oct-10	2010	Q4	-
				Nov-10	2010	Q4	-
				Dec-10	2010	Q4	-
				Jan-11	2011	Q1	-
				Feb-11	2011	Q1	-
				Mar-11	2011	Q1	-
				Apr-11	2011	Q2	-
				May-11	2011	Q2	-
				Jun-11	2011	Q2	-
				Jul-11	2011	Q3	-
				Aug-11	2011	Q3	-
				Sep-11	2011	Q3	-
				Oct-11	2011	Q4	-
				Nov-11	2011	Q4	-
				Dec-11	2011	Q4	-

	Jan-12	2012	Q1	-
	Feb-12	2012	Q1	-
	Mar-12	2012	Q1	-
	Apr-12	2012	Q2	-
	May-12	2012	Q2	-
	Jun-12	2012	Q2	-
	Jul-12	2012	Q3	-
	Aug-12	2012	Q3	-
	Sep-12	2012	Q3	-
	Oct-12	2012	Q4	-
	Nov-12	2012	Q4	-
	Dec-12	2012	Q4	-



preciation expense, based on monthly data.

ib-accounts Operating Expenses, Amortization Expenses, Carrying Charges

OM&A Expenses	Amortization / Depreciation Expense	Closing Balance (Principal)	(Annual) Interest Rate	Interest (on opening balance)	Cumulative Interest
		-	0.00%	-	-
		-	0.00%	-	-
		-	0.00%	-	-
		-	4.14%	-	-
		-	4.14%	-	-
		-	4.14%	-	-
		-	4.59%	-	-
		-	4.59%	-	-
		-	4.59%	-	-
		-	4.59%	-	-
		-	4.59%	-	-
		-	4.59%	-	-
		-	4.59%	-	-
		-	4.59%	-	-
		-	4.59%	-	-
		-	4.59%	-	-
		-	4.59%	-	-
		-	4.59%	-	-
		-	4.59%	-	-
		-	4.59%	-	-
		-	5.14%	-	-
		-	5.14%	-	-




\$ - \$ - \$

-	1.47%	-	-
-	1.47%	-	-
-	1.47%	-	-
-	1.47%	-	-
-	0.00%	-	-
-	0.00%	-	-
-	0.00%	-	-
-	0.00%	-	-
-	0.00%	-	-
-	0.00%	-	-
-	0.00%	-	-
-	0.00%	-	-

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