



CAMBRIDGE AND NORTH DUMFRIES HYDRO INC.
1500 Bishop Street, P.O. Box 1060, Cambridge, ON N1R 5X6
Phone: 519-621-8405, Ext. 2355 Fax: 519-621-0383

May 29, 2012

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

Dear Ms. Walli:

**Re: Cambridge and North Dumfries Hydro Inc.
Responses to Board Staff Interrogatories
2012 Smart Meter Cost Recovery Application – Final Disposition
EB-2012-0086**

Attached please find Cambridge and North Dumfries Hydro Inc. ("CND") 2012 Smart Meter Cost Recovery Application responses to Board staff interrogatories.

The responses have been filed electronically through the RESS system, submitted electronically to Board staff and the intervenor, and two paper copies have been forwarded to your attention via courier.

If you require any additional information or clarification, please contact

Grant Brooker
Manager, Regulatory Affairs,
Cambridge and North Dumfries Hydro Inc.
Tel 519.621.8405 Ext 2340

Sincerely,

CAMBRIDGE AND NORTH DUMFRIES HYDRO INC.

Original Signed By John Grotheer

John W. Grotheer
President and CEO

1. Letters of Comment

Following publication of the Notice of Application, the Board has, to date, received one letter of comment. The Board is also in receipt of a response letter sent from Cambridge and North Dumfries Hydro Inc. ("CND") to the commenter. Please confirm whether CND has received any other letters of comment. If so, please file a copy of any letters of comment. For each, please confirm whether a reply was sent from CND to the author of the letter. If confirmed, please file that reply with the Board. Please ensure that the author's contact information except for the name is redacted. If not confirmed, please explain why a response was not sent and confirm if CND intends to respond to the commenter.

RESPONSE

CND has received one letter of comment in addition to the one previously submitted and noted above. The letter of comment was received via email. The redacted email correspondence from the customer and CND's response to the customer is submitted as Exhibit A.

Manager's Summary

2. Ref: Manager's Summary – Audited Results

On page 6 of its Application CND states:

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.

Please confirm that CND's Audited Financial Statements for the year ending December 31, 2011 have been approved by CND's Board of Directors and that there are no changes to the smart meter costs to December 31, 2011 for which CND is seeking recovery in this Application. In the alternative, please explain.

RESPONSE

CND confirms that their Audited Financial Statements for the year ending December 31, 2011 have been approved by CND's Board of Directors and that there are no changes to the smart meter costs to December 31, 2011 for which CND is seeking recovery in this Application.

3. Ref: Manager's Summary – Efficiencies from Smart Meter Deployment

On page 7 of its Application, CND states:

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.

Other distributors have noted that capabilities of smart meters and the associated communications systems can provide information for a utility's SCADA and result in earlier detection and response to tampering, meter failures and service disruptions. This should result in better and more efficient maintenance and repair with respect to faults. Is CND using, or intent on using, deployed smart meters and communications networks for operational purposes and, if so, does it not expect efficiencies in operations and maintenance as a result? Please explain your response.

RESPONSE

CND's primary focus has been in meeting the provincial requirements for Smart Meter deployment and Time-of-Use Billing. As such, the only evidence of cost savings and operational efficiencies to date is in the area of manual meter reading.

The Smart Meter network brings back not only hourly electricity consumption data, but information concerning power outages, tampering, voltage and so forth. CND has just begun to evaluate the opportunities that this data presents. For example, CND's System Control Operators will look up specific meters on the Smart Meter AMCC for the purpose of trouble-shooting outages or to verify power-on conditions.

In future, CND will explore creating "virtual meters" (summation of all meters connected to a specific transformer, for instance) to evaluate equipment loading and tying Smart Meter data in real time into an as yet unspecified Outage Management System.

4. Ref: Manager's Summary – Costs Beyond Minimum Functionality

On page 8 of its Application, CND states that it "has incurred no costs considered to be beyond minimum functionality." In the Smart Meter Model Version 2.17, CND has documented no costs in categories 1.6.3 ("[Capital] Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.") or 2.6.3 ("[OM&A] Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.") CND states on page 4 of its Application that it cut over to TOU billing on a production basis on February 24, 2012 after commencing testing of MDM/R integration in June 2011. What are the "beyond minimum functionality" costs, as defined in section 3.4 of *Guideline G-2011-0001: Smart Meter Funding and Cost Recovery – Final Disposition*, that CND has incurred for TOU implementation, and how are these costs being recovered?

RESPONSE

During the latter part of 2009 and into 2010, CND was in the process of implementing a CIS/Billing System to replace an existing system that could not support TOU billing. The CIS/Billing System ultimately purchased by CND included all of the functionality discussed above. Because the costs related to TOU implementation were not easily or practically segregated from the CIS/Billing System package that was purchased, such costs were not charged to the Smart Meter variance account as they could have been. The costs were and continue to be part of the purchase price of the CIS/Billing System.

CND was directed in the decision on their 2009 Rate Application (EB-2009-0260) to file quarterly reports on the implementation and costs of their new CIS/Billing system. CND has reported on a quarterly basis as directed to do so.

TOU Billing

5. Ref: Application - TOU billing

On page 4 of its Application, CND states:

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.

- a) Please explain what CND means when its states that it "successfully cutover to Production Operations on February 24, 2012" despite not being able to bill customers at TOU rates.

RESPONSE

CND's enrollment process with the IESO was based on the availability of EnergyIP r7.2 (the software that underlies the provincial MDM/R) even though r7.0 was the current version of software in production. This decision was made consciously between CND and the IESO during the planning stage, since r7.2 was expected to be available by the time CND was to cut over to production.

EnergyIP r7.2 receives synchronization files and smart meter data in the same fashion as r7.0, however, the interfaces that allow LDCs to make Billing Requests and receive response files is completely different.

All of CND's testing and configuration was on the basis of r7.2 interfaces. When the IESO announced delays in deploying r7.2, LDCs were advised to cut over to the production r7.0 system, but were told they would have to wait for r7.2 before TOU billing could commence. CND cut over to the production MDM/R system on February 24, 2012 and began building history in the MDM/R which will carry forward when the software is updated.

- b) Is CND billing customers now with TOU rates? If not, please explain.

RESPONSE

At this time, CND has not sent out bills to customers using TOU rates. Consumption readings beginning April 18, 2012 are presently being taken using the smart meters and customers will be billed for this consumption using TOU rates. Such bills will be received by customers by July 6, 2012.

Provincial MDM/R Cost Recovery

6. Ref: Manager's Summary – IESO-SME Charges

On page 14 of its Application, CND states:

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. In Table 9 on page 15 of its Application, CND shows that an amount of \$581,280 for "Other AMI Expenses" for 2012. A footnote indicates that the \$581,280 covers expenses for "MDM/R fees, ODS fees, and AMI Test Environment (Powerstream Test RNI)".

- a) Please provide a disaggregation of the \$581,280 into the component expense categories listed in the footnote, and any others that may apply.

RESPONSE

Other AMI expenses are composed of the following:

MDM/R fees (number of customers times the monthly fee times 12 months)	
51,000 X \$.81 X 12 months =	\$495,720
ODS fee (number of customers times the monthly fee times 12 months)	
51,000 X \$.13 X 12 months =	\$79,560
AMI Test Environment (Powerstream Test RNI)	\$6,000
Total	\$581,280

- b) Please explain what is meant by each of: MDM/R fees; ODS fees; and AMI Test Environment.

RESPONSE

MDM/R Fees: The Meter Data Management Repository (MDM/R) Fees are fees payable by LDCs to the IESO to cover the costs of storing and processing the electricity consumption data from smart meters throughout the province. All Ontario LDCs are required to pay these fees which are based on the number of customers (meters) connected.

ODS fees: ODS is an acronym for Operation Data Store, which is a software solution that allows LDCs to manage exceptions and responses from the IESO's MDM/R. If data from the Smart Meter system is incorrect, invalid or missing, the MDM/R will simply reject the file and leave it to the LDC to sort out. ODS systems can machine read the IESO exception reports, gather or correct data and automatically re-submit files. ODS processes are integral to the IESO's MDM/R Enrolment Process. CND utilizes an ODS solution from MeterSense (a Harris company) and subscribes to a solution that is hosted off-site.

AMI Test Environment: CND utilizes Sensus Smart Meter technology. Like most LDCs in Ontario, CND installed a primary environment but with no capability of testing new software releases, meter types and so on before putting them into

production. PowerStream installed and configured a Test Environment in which multiple Sensus LDCs in Ontario share the cost. The Test Environment allows LDCs to ensure that new software releases, new meter types and new functionality all work properly before they go into the live production system. By sharing costs, CNL has realized significant savings over having to install their own test environment.

- c) Please explain how CNL has converted the \$0.81 fee applied for by the IESO-SME under File No. EB-2012-0100 into an aggregate expense which CNL is seeking incorporation into its 2012 prospective revenue requirement for recovery through the SMIRR in this Application.

RESPONSE

As indicated in the response to part (a) of this question, CNL included the annual fee of \$495,720 (51,000 customers times \$.81 times 12 months) in part 2.5.6, other AMI Expenses,

- d) To date, and prior to the application filed by the IESO-SME for recovery of costs incurred for the Provincial MDM/R, the Board has disallowed recovery for forecasted IESO-SME MDM/R costs as being premature (e.g. PowerStream's 2010 smart meter application EB- 2010-0209). The IESO-SME's application is before the Board. On May 18, 2012, the Board issued its Notice of Application by the Smart Metering Entity for Approval of a Smart Metering Charge and Notice of Proceeding to Determine the Appropriate Recovery and Allocation of the Smart Metering Charge with respect to the IESO-SME's application. In that Notice, the Board stated that it was commencing a proceeding, on its own motion, that would consider, jointly with the costs being proposed for recovery by the IESO-SME, the mechanism(s) by which electricity distributors should recover these costs from ratepayers. These proceedings are being jointly considered under File Nos. EB-2012-0100 and EB-2012-0211.
- i. What is the rationale of CNL for seeking recovery of the \$0.81 per RPP-eligible customer in this application?

RESPONSE

At the time that CNL was preparing its Smart Meter Cost Recovery Application, the MDM/R fees had not yet been determined by the IESO. It was known that there would be a charge of an unknown amount for the services provided by the IESO in this regard. CNL determined that it would be appropriate to include costs for such services in its Smart Meter Cost Recovery Application as the nature of such application is to recover all smart meter related costs. The initial iterations of CNL's application and models included an estimated amount for the anticipated costs. When the IESO submitted their application using a rate of \$.806 it was determined that the amount applied for would be the appropriate figure to use, as it had been provided by an external source: the IESO.

- ii. In light of the Notice issued by the Board as documented above in the proceeding under EB-2012-0100/EB-2012-0211, please provide CND's views as to whether recovery of the proposed IESO-SME charges should be dealt with in this current Application.

RESPONSE

The IESO in its application is proposing to collect the Smart Metering Charge ("SMC") from all licensed electricity distributors for the period July 1, 2012 to December 31, 2017. As such, all licensed electricity distributors including CND, must in some manner, recover such costs from their customers. Because CND is in the process of applying for recovery of its Smart Meter related costs in this current application, it would be remiss of CND to not include costs that it is aware are forthcoming. Under this scenario, it is appropriate that recovery of the proposed IESO-SME charges be dealt with in this current Application.

Having said this, the OEB has determined that it will commence a proceeding on its own motion to review the options for and ultimately determine the appropriate allocation and recovery of the SMC. The appropriate recovery of the SMC has not yet been finalized. If the recovery is included, as an example, as a separate charge to customers, then it is not appropriate to deal with the recovery of the proposed IESO-SME charge in this current Application.

- e) Please provide estimates of the uniform and class-specific SMIRRs omitting these costs. In providing these estimates, please reflect any changes and corrections made as a result of responding to interrogatories. Please provide the supporting calculations.

RESPONSE

CND has recalculated the SMIRRs by removing the IESO-SME charges of \$495,720 from cell S158 of the model. The model supporting this calculation can be found as Exhibit B. Tab 9 of the Model indicates that the uniform SMIRR is \$2.58 per metered customer based on a twelve month recovery period. (Incremental Revenue Requirement for 2012 of \$1,570,679.82 / 50,709 customers / 12 months = \$2.58). When this change is made, the Tables submitted with the Application change as follows:

Table 8 SMIRR Revenue Requirement as revised

Determination of SMIRR Revenue Requirement		If \$.81 Removed
Total Return on Capital	\$469,622	\$464,553
Operating expenses	\$856,010	\$360,290
Amortization expenses	\$628,078	\$628,078
PILs	<u>\$118,802</u>	<u>\$117,759</u>
Total Revenue Requirement	<u>\$2,072,512</u>	<u>\$1,570,680</u>

Table 9 2012 OM&A Costs as revised

Incremental OM&A Costs for 2012			if \$.81 removed
Description	Amount		Amount
2.3.1 Hardware Maintenance	\$190,095		\$190,095
2.5.1 Business Process redesign	\$13,690		\$13,690
2.5.2 Customer Communication	\$29,876		\$29,876
2.5.3 Program Management	\$41,069		\$41,069
2.5.6 Other AMI Expenses	\$581,280		\$85,560
Total	\$856,010		\$360,290

Table 10 SMIRR as revised

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%	\$1,279,476	\$1.26
GS<50kW	4,642	18.54%	\$291,204	\$2.85
Total	50,709	100.00%	\$1,570,680	

For the purposes of answering this interrogatory, only the provincial MDM/R Cost Recovery of \$.81 per customer per month has been removed from the model. Please see CND's answer to interrogatory 12 for other changes and answers to interrogatories that have been incorporated into the Smart Meter Model.

Recovery Period for SMDR

In its Application, CND has calculated class-specific SMDRs that are fairly small credit rate riders and has proposed that the amounts be refunded to customers over a 22 month period from July 1, 2012 to April 30, 2014.

- a) Given the relatively small quantum to be refunded to Residential and GS < 50 kW customers, why has CND not proposed a shorter refund or recovery period for the SMDRs.

RESPONSE

CND proposed a refund period for the SMDRs that is consistent with the recovery period for the SMIRR. To have non compatible periods of refund and recovery for these two closely related charges is, in the opinion of CND, confusing for customers and breaks the inherent link between the charges.

- b) Board staff observes that the class-specific SMDRs may change as a result of responses to interrogatories. If, as a result of interrogatories, CND believes that an alternative refund or recovery period is appropriate, please explain.

RESPONSE

Regardless of the changes that may be required as a result of responses to interrogatories, CND believes that the period of recovery or refund for the SMDR should be the same as the period of recovery or refund as the SMIRR.

Stranded Meters

7. Ref: Manager's Summary – Stranded Meter Costs

On page 11 of its Application, CND documents its proposed treatment for stranded meters. CND is proposing to not dispose and recover the costs for stranded conventional meters replaced in by smart meters in this Application. In table 4, CND provides estimates of the residual net book value of stranded meters at the end of 2010, 2011 and 2012 reflecting accumulated depreciation and net salvage proceeds. CND last rebased its rates through a cost of service application for the 2010 rate year [EB-2009-0260] and so is scheduled to next rebase through a cost of service application for 2014.

Please provide the estimated residual net book value for stranded meters as of December 31, 2013. Please also provide this as a per meter cost for the applicable Residential and GS < 50 kW customer classes.

RESPONSE

The year 2013 has been added to Table 4.

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
	2013 Amort	\$311,074.01			\$0.00	
2013	\$8,286,379.75	\$5,832,137.51	\$0.00	\$2,454,242.24	\$7,597.55	\$2,446,644.69

The estimated residual net book value for stranded meters as of December 31, 2013 is \$2,446,644.69.

The per meter cost, using the total of 50,709 (46,067 Residential and 4,642 GS < 50 kW) is \$48.25. (\$2,224,644.69 / 50,709).

Smart Meter Model

8. Ref: Smart Meter Model – Cost of Capital

On sheet 3 of the Smart Meter Model, Version 2.17, CNL shows a long-term debt rate of 4.99% for all years from 2006 to 2012. In CNL's 2006 EDR rates application [RP-2005-0020/EB-2005-0343], the utility was approved a long-term debt rate of 6.01%. This would have applied until CNL rebased its rates in its 2010 cost of service application [EB-2009-0260].

Please explain the use of the 4.99% for the years from 2006 to 2009.

RESPONSE

The insertion of 4.99% in the years 2006 to 2009 was an oversight. The long-term debt rate of 6.01% should be used for the years from 2006 to 2009.

9. Ref: Smart Meter Model – Taxes/PILs Rates

CNL has used the maximum taxes/PILs rates input on sheet 3, row 40, for the years 2006, 2007, 2008, 2009, 2010, 2011 and 2012 and beyond. These are summarized in the following table:

Year	2006	2007	2008	2009	2010	2011	2012 and beyond
Aggregate Federal and provincial income tax rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%

Please confirm that these are the tax rates corresponding to the taxes or PILs actually paid by CNL in each of the historical years, and that CNL forecasts it will pay for 2012. In the alternative, please explain the tax rates input and their derivation.

RESPONSE

The tax rates used by CNL in their model are those supplied with the model, and represent the Statutory Canadian Federal and Provincial income tax rates applicable to CNL.

10. Ref: Smart Meter Model – Interest on OM&A and Depreciation Expenses

In the Smart Meter Model Version 2.17 filed by CNL, the utility has relied upon sheet 8B to calculate the interest on OM&A and depreciation/amortization expenses. Sheet 8B calculates the interest based on the average annual balance of deferred OM&A and depreciation/amortization expenses based on the annual amounts input elsewhere in the model. The more accurate and preferred method for calculating the interest on OM&A and depreciation/amortization expense is to input the monthly amounts from the sub-account details of Account 1556, using sheet 8A of the model. This approach is analogous to the calculation of interest on SMFA revenues on sheet 8 of the model.

- a) Please re-file the smart meter model using the monthly OM&A and depreciation/amortization expense data from Account 1556 records. CNL should also take into account any revisions necessary as a result of its responses to any preceding interrogatories.

RESPONSE

CNL has filled out Sheet 8A and the model is shown as Exhibit C.

- b) If this is not possible, please explain.

RESPONSE

CNL calculates amortization at the end of each year. Sheet 8A has been prepared with the annual amortization applied equally to each month throughout the year.

Cost Allocation

11. Ref: Manager’s Summary – Cost Allocation

In its Application, CNL has proposed class-specific SMDRs and SMIRRs for the Residential and GS < 50 kW classes. Smart Meter costs are allocated as follows, according to CNL’s Application:

- 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.

This has been used for the calculation of both the SMDRs and the SMIRRs.

a) In Table 5, CNL shows a percentage allocation of 81.46% for Residential and 18.54% for GS < 50 kW, while Table 7 for the SMDR rates documents an allocation of 80.38% for Residential and 19.62% for GS < 50 kW. Please explain the differences between the allocations in Tables 5 and 7, and the derivation of the allocation percentages in Table 7.

RESPONSE

The correct percentage allocation is 81.46% for Residential and 18.54% for GS < 50 kW. The allocations shown on Table 7 are not correct. Table 7 as restated is shown below.

Table 7 SMDR Rates (revised using correct Allocation)

Calculation of Smart Meter Disposition Rate Rider				
Customer Class	# of Active Metered Customers at December 31, 2011	SMIRR Allocation (%)	True-up Amount Allocation	Monthly Charge (22 Months)
Residential	46,067	81.46%	(\$66,130)	(\$0.07)
GS<50kW	4,642	18.54%	(\$15,051)	(\$0.15)
Total	50,709	100.00%	(\$81,182)	

b) With CNL's proposed SMDRs, GS < 50 kW would receive a larger credit refund than would Residential customers. CNL has proposed a Residential SMDR of (\$0.06)/month and a GS < 50 kW SMDR of (\$0.16)/month, both for a period from July 1, 2012 to April 30, 2014. Board staff observes that it is illogical for the SMDR (Residential) to be greater than the SMDR (GS < 50 kW). The average capital cost per GS < 50 kW customer is generally higher than that for the average Residential customer, due to a greater percentage of more expensive polyphase meters for customers with 2-phase or 3-phase service. This means that the deferred revenue requirement, expressed on a per meter basis, should be higher for a GS < 50 kW customer than for a Residential customer, all else being equal. The offsetting SMFA revenues should be equal, as the SMFA was uniform across all metered customer classes. As a result, SMDR (Residential) should be less than or equal to the SMDR (GS < 50 kW). Board staff observes that this anomaly may result from the calculations in Table 7, which apportions

80.38% of the deferred revenue requirement offset by the SMFA revenues to the Residential class. An alternative approach would be to allocate the deferred revenue requirement as described by CND and listed above, with the SMFA revenues and interest on the principal first calculated directly for the Residential and GS < 50 kW classes, with then the residual SMFA revenues and interest collected from other metered customer classes (i.e., GS 50-4999 kW and Large Use) allocated 50:50 to the Residential and GS < 50 kW classes. This approach has been used and approved in some recent cost of service applications, including that for Guelph Hydro's 2012 rates application [EB-2011-0123]. Using the attached spreadsheet taken from Guelph Hydro's draft Rate Order filing, please provide calculations for class-specific SMDRs using a more direct allocation of SMFA revenues.

RESPONSE

CND has applied their own figures in the Guelph Hydro spreadsheet, specifically applying a more direct allocation of SMFA revenues. Applying CND calculations in the spreadsheet results in SMDRs of (\$.38) for Residential customers over 22 months and \$3.07 for General Service customers over 22 months. Please see the table below. The working excel spreadsheet is attached as Exhibit D.

12. Ref: Application, Sections 8.0 and 9.0 – Cost Allocation

- a) If CND has made revisions to its Smart Meter Model, Version 2.17 as a result of its responses to interrogatories, please update its proposed class-specific SMDRs.

RESPONSE

Please see CND's responses to VECC interrogatory 9 a) and b) for revisions to the Smart Meter Model, Version 2.17. The responses and changes to the model include the completion of two models, one for the Residential customer class and one for the General Service <50 kW customer class. Both models also applied the long term debt rate of 6.01% for the years 2006 to 2009.

- b) Similarly, please update the calculation of class-specific SMIRRs.

RESPONSE

Please see CND's response to VECC interrogatory 9 a) and b).

EXHIBIT A

RESPONSE TO BOARD STAFF INTERROGATORY 1

Cambridge and North Dumfries Hydro Inc. EB-2012-0086

Cambridge and North Dumfries Hydro Inc.
Customer Web Enquiry –
Question/Clarification regarding Smart Meter Cost Recovery Application EB-2012-0086

From: Senior Customer Care
To: @sympatico.ca
CC:
Subject: RE: Contact Us Form

Sent: Wed 4/11/2012 8:17

Good Day Mr. . I have had your enquiry reviewed . Here is the response . Please advise if I can be of any further assistance . Thanks Michelle

The increase of \$1.64 applies to residential customers.

The increase of \$3.65 applies to general service <50 customers.

Michelle S. Auld
Senior Credit Collections Representative
Cambridge and North Dumfries Hydro Inc.
1500 Bishop St. P.O. Box 1060
Cambridge, ON N1R 5X6
Direct: 519-621-8405 ext 2231
Fax: 519-621-7420
mauld@camhydro.com
www.camhydro.com

 please consider the environment before printing this email
This communication is directed in confidence solely to the addressees listed above, and may not otherwise be distributed, copied or used. Kindly notify the sender by reply email if your name is not included as an addressee and then delete the message received in error.

email: CustomerCare@camhydro.com

Name: John

Address:

PhoneNumber: 519.

CustomerEmail: @sympatico.ca

Comments: I viewed your application to OEB regarding the Delivery rate increase to recover the cost of installing the Smartmeters and don't understand the following: "If the application is fully approved, the average impact on the monthly bill for a Residential customer would be an increase of \$1.64 per month for the next 22 months until the utility rebases its rates, expected for 2014. The average impact on the monthly bill for a General Service customer having a monthly demand of less than 50 KW would increase by \$3.65 per month for the next 22 months until the utility rebases its rates." My question is: How can an increase of \$1.64 (CND calculated \$1.61)per month increase a bill by \$3.65 per month? Its in the application that way and I don't understand the math. If an increase of \$1.64 per month is accepted, shouldn't it increase by \$1.64 per month? Can you explain please? Thanks in advance... John

EXHIBIT B

RESPONSE TO BOARD STAFF INTERROGATORY 6 e)

Cambridge and North Dumfries Hydro Inc. EB-2012-0086



Choose Your Utility:

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

Application Contact Information

Name:

Title:

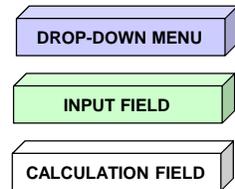
Phone Number:

Email Address:

We are applying for rates effective:

Last COS Re-based Year

Legend



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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.



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	2006	2007	2008	2009	2010	2011	2012 and later	Total	
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast		
Smart Meter Installation Plan									
Actual/Planned number of Smart Meters installed during the Calendar Year									
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 Asset type must be selected to enable calculations								
1.1.1 Smart Meters (may include new meters and modules, etc.)	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	\$	
	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.)								\$ -	
Total Advanced Metering Communications Devices (AMCD)	\$ -	\$ -	\$ -	\$ 1,241,940	\$ 5,675,187	\$ 402,965	\$ -	\$ 7,320,092	
1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)									
	Asset Type								
1.2.1 Collectors	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	\$	
	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.)								\$ -	
Total Advanced Metering Regional Collector (AMRC) (Includes LAN)	\$ -	\$ -	\$ 148,665	\$ 276,076	\$ -	\$ -	\$ -	\$ 424,741	

1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.3.1 Computer Hardware	Computer Hardware				205,278		0		\$ 205,278
1.3.2 Computer Software									\$ -
1.3.3 Computer Software Licences & Installation (includes hardware and software) <i>(may include AS/400 disk space, backup and recovery computer, UPS, etc.)</i>									\$ -
Total Advanced Metering Control Computer (AMCC)		<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 205,278</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 205,278</u>

1.4 WIDE AREA NETWORK (WAN)

	Asset Type	Audited Actual	Forecast						
1.4.1 Activation Fees									\$ -
Total Wide Area Network (WAN)		<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>					

1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY

	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.5.1 Customer Equipment <i>(including repair of damaged equipment)</i>	Other Equipment								\$ -
1.5.2 AMI Interface to CIS	Computer Software				22,550	11,890	8,753		\$ 43,193
1.5.3 Professional Fees	Computer Hardware				39,459				\$ 39,459
1.5.4 Integration	Computer Hardware								\$ -
1.5.5 Program Management	Computer Software			24,197	36,570	40,779	43,687		\$ 145,233
1.5.6 Other AMI Capital	Computer Software						0		\$ -
Total Other AMI Capital Costs Related to Minimum Functionality		<u>\$ -</u>	<u>\$ -</u>	<u>\$ 24,197</u>	<u>\$ 98,579</u>	<u>\$ 52,669</u>	<u>\$ 52,440</u>	<u>\$ -</u>	<u>\$ 227,885</u>
Total Capital Costs Related to Minimum Functionality		<u>\$ -</u>	<u>\$ -</u>	<u>\$ 172,862</u>	<u>\$ 1,821,873</u>	<u>\$ 5,727,856</u>	<u>\$ 455,405</u>	<u>\$ -</u>	<u>\$ 8,177,996</u>

1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY

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

	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
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	Computer Software								\$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software								\$ -
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		<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Total Smart Meter Capital Costs		<u>\$ -</u>	<u>\$ -</u>	<u>\$ 172,862</u>	<u>\$ 1,821,873</u>	<u>\$ 5,727,856</u>	<u>\$ 455,405</u>	<u>\$ -</u>	<u>\$ 8,177,996</u>

2 OM&A Expenses

	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
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.)				68,823	94,291	92,842	190,095	\$ 446,050
2.3.2 Software Maintenance (may include maintenance support, etc.)						0		\$ -
2.3.2 Other (please specify)								\$ -
Total Incremental AMCC OM&A Costs	\$ -	\$ -	\$ -	\$ 68,823	\$ 94,291	\$ 92,842	\$ 190,095	\$ 446,050
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 FUNCTIONALIT								
2.5.1 Business Process Redesign							13,690	\$ 13,690
2.5.2 Customer Communication (may include project communication, etc.)				3,718	34,509	0	29,876	\$ 68,104
2.5.3 Program Management							41,069	\$ 41,069
2.5.4 Change Management (may include training, etc.)								\$ -
2.5.5 Administration Costs			76	6,541	0			\$ 6,617
2.5.6 Other AMI Expenses (please specify)				741	104,817	21,357	85,560	\$ 212,476
Total Other AMI OM&A Costs Related to Minimum Functionality	\$ -	\$ -	\$ 76	\$ 11,000	\$ 139,327	\$ 21,357	\$ 170,195	\$ 341,955
TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	\$ -	\$ -	\$ 76	\$ 79,823	\$ 233,617	\$ 114,199	\$ 360,290	\$ 788,006
2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALIT								
(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	\$ -	\$ -	\$ 76	\$ 79,823	\$ 233,617	\$ 114,199	\$ 360,290	\$ 788,006

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	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 172,862</u>	<u>\$ 1,821,873</u>	<u>\$ 5,727,856</u>	<u>\$ 455,405</u>	<u>\$ -</u>	<u>\$ 8,177,996</u>
3.2	OM&A Costs								
3.2.1	Total OM&A Costs	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 76</u>	<u>\$ 79,823</u>	<u>\$ 233,617</u>	<u>\$ 114,199</u>	<u>\$ 360,290</u>	<u>\$ 788,006</u>



Cambridge and North Dumfries Hydro Inc.

	2006	2007
Cost of Capital		
Capital Structure¹		
Deemed Short-term Debt Capitalization		
Deemed Long-term Debt Capitalization	50.0%	50.0%
Deemed Equity Capitalization	50.0%	50.0%
Preferred Shares		
Total	100.0%	100.0%
Cost of Capital Parameters		
Deemed Short-term Debt Rate		
Long-term Debt Rate (actual/embedded/deemed) ²	4.99%	4.99%
Target Return on Equity (ROE)	9.0%	9.00%
Return on Preferred Shares		
WACC	7.00%	7.00%
Working Capital Allowance		
Working Capital Allowance Rate	15.0%	15.0%
<i>(% of the sum of Cost of Power + controllable expenses)</i>		
Taxes/PILs		
Aggregate Corporate Income Tax Rate	36.12%	36.12%
Capital Tax (until July 1st, 2010)	0.30%	0.225%
Depreciation Rates		
<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

- ¹ Planned smart meter installations occur evenly throughout the year.
- ² Fiscal calendar year (January 1 to December 31) used.
- ³ 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.

	2006	2007	2008	2009	2010	2011
Net Fixed Assets - Smart Meters						
Gross Book Value						
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	\$ 402,985
Retirements/Removals (if applicable)						
Closing Balance	\$ -	\$ -	\$ 148,665	\$ 1,666,681	\$ 7,341,868	\$ 7,744,833
Accumulated Depreciation						
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
Net Book Value						
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						
Gross Book Value						
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
Accumulated Depreciation						
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
Net Book Value						
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)						
Gross Book Value						
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
Accumulated Depreciation						
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
Net Book Value						
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
\$	-
\$	<u>7,744,833</u>

-\$	868,642
-\$	<u>516,322</u>
-\$	<u>1,384,964</u>

\$	6,876,191
\$	6,359,869
\$	<u>6,618,030</u>

\$	244,737
\$	-
\$	<u>244,737</u>

-\$	122,369
-\$	<u>48,947</u>
-\$	<u>171,316</u>

\$	122,369
\$	73,421
\$	<u>97,895</u>

\$	188,426
\$	-
\$	<u>188,426</u>

-\$	112,571
-\$	<u>62,809</u>
-\$	<u>175,380</u>

\$	75,855
\$	13,046
\$	<u>44,451</u>

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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
Average Net Fixed Asset Values (from Sheet 4)							
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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Net Fixed Assets	\$ -	\$ -	\$ 81,937	\$ 1,023,358	\$ 4,553,879	\$ 7,149,665	\$ 6,760,375
Working Capital							
Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ 76	\$ 79,823	\$ 233,617	\$ 114,199	\$ 360,290
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ 11	\$ 11,973	\$ 35,043	\$ 17,130	\$ 54,044
Incremental Smart Meter Rate Base	\$ -	\$ -	\$ 81,948	\$ 1,035,332	\$ 4,588,921	\$ 7,166,795	\$ 6,814,419
Return on Rate Base							
Capital Structure							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 183,557	\$ 286,672	\$ 272,577
Deemed Long Term Debt	\$ -	\$ -	\$ 43,678	\$ 587,033	\$ 2,569,796	\$ 4,013,405	\$ 3,816,075
Equity	\$ -	\$ -	\$ 38,270	\$ 448,299	\$ 1,835,569	\$ 2,866,718	\$ 2,725,768
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capitalization	\$ -	\$ -	\$ 81,948	\$ 1,035,332	\$ 4,588,921	\$ 7,166,795	\$ 6,814,419
Return on							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 3,800	\$ 5,934	\$ 5,642
Deemed Long Term Debt	\$ -	\$ -	\$ 2,180	\$ 29,293	\$ 128,233	\$ 200,269	\$ 190,422
Equity	\$ -	\$ -	\$ 3,444	\$ 40,347	\$ 180,804	\$ 282,372	\$ 268,488
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Return on Capital	\$ -	\$ -	\$ 5,624	\$ 69,640	\$ 312,836	\$ 488,575	\$ 464,553
Operating Expenses	\$ -	\$ -	\$ 76	\$ 79,823	\$ 233,617	\$ 114,199	\$ 360,290
Amortization Expenses (from Sheet 4)							
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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Amortization Expense in Year	\$ -	\$ -	\$ 8,988	\$ 102,904	\$ 385,783	\$ 605,906	\$ 628,078
Incremental Revenue Requirement before Taxes/PILs	\$ -	\$ -	\$ 14,688	\$ 252,367	\$ 932,236	\$ 1,208,680	\$ 1,452,921
Calculation of Taxable Income							
Incremental Operating Expenses	\$ -	\$ -	\$ 76	\$ 79,823	\$ 233,617	\$ 114,199	\$ 360,290
Amortization Expense	\$ -	\$ -	\$ 8,988	\$ 102,904	\$ 385,783	\$ 605,906	\$ 628,078
Interest Expense	\$ -	\$ -	\$ 2,180	\$ 29,293	\$ 132,032	\$ 206,203	\$ 196,064
Net Income for Taxes/PILs	\$ -	\$ -	\$ 3,444	\$ 40,347	\$ 180,804	\$ 282,372	\$ 268,488
Grossed-up Taxes/PILs (from Sheet 7)	\$ -	\$ -	\$ 284.00	\$ 6,646.83	\$ 13,466.14	\$ 105,058.36	\$ 117,758.63
Revenue Requirement, including Grossed-up Taxes/PILs	\$ -	\$ -	\$ 14,972	\$ 245,720	\$ 918,770	\$ 1,313,739	\$ 1,570,680



Ontario Energy Board

Smart Meter Model

Cambridge and North Dumfries Hydro Inc.

PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
INCOME TAX							
Net Income	\$ -	\$ -	\$ 3,444.28	\$ 40,346.87	\$ 180,803.51	\$ 282,371.71	\$ 268,488.10
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	\$ 330,845.67
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	\$ 86,846.99
ONTARIO CAPITAL TAX							
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	\$ 86,846.99
Change in OCT	\$ -	\$ -	\$ 368.72	\$ 4,236.40	\$ 5,418.69	\$ -	\$ -
PILs	\$ -	\$ -	\$ 312.38	\$ 3,055.36	\$ 7,611.84	\$ 75,379.37	\$ 86,846.99
Gross Up PILs							
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	\$ 117,758.63
Change in OCT	\$ -	\$ -	\$ 368.72	\$ 4,236.40	\$ 5,418.69	\$ -	\$ -
PILs	\$ -	\$ -	\$ 284.00	\$ 6,646.83	\$ 13,466.14	\$ 105,058.36	\$ 117,758.63





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	01	\$ -	\$ -	0.00%	\$ -	\$ -			
2006 Q2	4.14%	4.68%	Feb-06	2006	01	\$ -	\$ -	0.00%	\$ -	\$ -			
2006 Q3	4.59%	5.05%	Mar-06	2006	01	\$ -	\$ -	0.00%	\$ -	\$ -			
2006 Q4	4.59%	4.72%	Apr-06	2006	02	\$ -	\$ -	4.14%	\$ -	\$ -			
2007 Q1	4.59%	4.72%	May-06	2006	02	\$ -	\$ -	4.14%	\$ -	\$ -			
2007 Q2	4.59%	4.72%	Jun-06	2006	02	\$ -	\$ 5,948.57	4.14%	\$ -	\$ 5,948.57			\$ 0.27
2007 Q3	4.59%	5.18%	Jul-06	2006	03	\$ 5,948.57	\$ 11,259.88	4.59%	\$ 22.75	\$ 17,231.20			\$ 0.27
2007 Q4	5.14%	5.18%	Aug-06	2006	03	\$ 17,208.45	\$ 13,331.09	4.59%	\$ 65.82	\$ 30,605.36			\$ 0.27
2008 Q1	5.14%	5.18%	Sep-06	2006	03	\$ 30,539.54	\$ 12,382.03	4.59%	\$ 116.81	\$ 43,038.38			\$ 0.27
2008 Q2	4.08%	5.18%	Oct-06	2006	04	\$ 42,921.57	\$ 12,752.32	4.59%	\$ 164.18	\$ 55,838.07			\$ 0.27
2008 Q3	3.35%	5.43%	Nov-06	2006	04	\$ 55,673.89	\$ 13,722.44	4.59%	\$ 212.95	\$ 69,609.28			\$ 0.27
2008 Q4	3.35%	5.43%	Dec-06	2006	04	\$ 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	01	\$ 81,586.73	\$ 13,302.95	4.59%	\$ 312.07	\$ 95,201.75			\$ 0.27
2009 Q2	1.00%	6.61%	Feb-07	2007	01	\$ 94,889.68	\$ 12,840.62	4.59%	\$ 362.95	\$ 108,093.25			\$ 0.27
2009 Q3	0.55%	5.67%	Mar-07	2007	01	\$ 107,730.30	\$ 13,337.47	4.59%	\$ 412.07	\$ 121,479.84			\$ 0.27
2009 Q4	0.55%	4.66%	Apr-07	2007	02	\$ 121,067.77	\$ 12,805.23	4.59%	\$ 463.08	\$ 134,336.08			\$ 0.27
2010 Q1	0.55%	4.34%	May-07	2007	02	\$ 133,873.00	\$ 13,399.27	4.59%	\$ 512.06	\$ 147,784.33			\$ 0.27
2010 Q2	0.55%	4.34%	Jun-07	2007	02	\$ 147,272.27	\$ 12,819.77	4.59%	\$ 563.32	\$ 160,655.36			\$ 0.27
2010 Q3	0.89%	4.66%	Jul-07	2007	03	\$ 160,092.04	\$ 13,362.81	4.59%	\$ 612.35	\$ 174,067.20			\$ 0.27
2010 Q4	1.20%	4.01%	Aug-07	2007	03	\$ 173,454.85	\$ 13,439.51	4.59%	\$ 663.46	\$ 187,557.82			\$ 0.27
2011 Q1	1.47%	4.29%	Sep-07	2007	03	\$ 186,894.36	\$ 12,728.90	4.59%	\$ 714.87	\$ 200,338.13			\$ 0.27
2011 Q2	1.47%	4.29%	Oct-07	2007	04	\$ 199,623.26	\$ 12,778.15	5.14%	\$ 855.05	\$ 213,256.46			\$ 0.27
2011 Q3	1.47%	4.29%	Nov-07	2007	04	\$ 212,401.41	\$ 14,663.43	5.14%	\$ 909.79	\$ 227,974.63			\$ 0.27
2011 Q4	1.47%	4.29%	Dec-07	2007	04	\$ 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	01	\$ 238,584.63	\$ 13,451.80	5.14%	\$ 1,021.94	\$ 253,058.37			\$ 0.27
2012 Q2		4.29%	Feb-08	2008	01	\$ 252,036.43	\$ 12,869.84	5.14%	\$ 1,079.56	\$ 265,985.83			\$ 0.27
2012 Q3		4.29%	Mar-08	2008	01	\$ 264,906.27	\$ 13,462.14	5.14%	\$ 1,134.68	\$ 279,503.09			\$ 0.27
2012 Q4		4.29%	Apr-08	2008	02	\$ 278,368.41	\$ 12,898.11	4.08%	\$ 946.45	\$ 292,212.97			\$ 0.27
			May-08	2008	02	\$ 291,266.52	\$ 13,479.94	4.08%	\$ 990.31	\$ 305,736.77			\$ 0.27
			Jun-08	2008	02	\$ 304,746.46	\$ 12,904.41	4.08%	\$ 1,036.14	\$ 318,687.01			\$ 0.27
			Jul-08	2008	03	\$ 317,650.87	\$ 14,058.56	3.35%	\$ 886.78	\$ 332,596.21			\$ 0.27
			Aug-08	2008	03	\$ 331,709.43	\$ 12,282.61	3.35%	\$ 926.02	\$ 344,918.06			\$ 0.27
			Sep-08	2008	03	\$ 343,992.04	\$ 13,478.54	3.35%	\$ 960.31	\$ 358,430.89			\$ 0.27
			Oct-08	2008	04	\$ 357,470.58	\$ 13,517.65	3.35%	\$ 997.94	\$ 371,986.17			\$ 0.27
			Nov-08	2008	04	\$ 370,988.23	\$ 12,830.00	3.35%	\$ 1,035.68	\$ 384,853.91			\$ 0.27
			Dec-08	2008	04	\$ 383,818.23	\$ 12,881.96	3.35%	\$ 1,071.49	\$ 397,771.68	\$ 170,202.86		\$ 0.27
			Jan-09	2009	01	\$ 396,700.19	\$ 13,492.44	2.45%	\$ 809.93	\$ 411,002.56			\$ 0.27
			Feb-09	2009	01	\$ 410,192.63	\$ 12,950.58	2.45%	\$ 837.48	\$ 423,980.69			\$ 0.27
			Mar-09	2009	01	\$ 423,143.21	\$ 13,614.22	2.45%	\$ 863.92	\$ 437,621.35			\$ 0.27
			Apr-09	2009	02	\$ 436,757.43	\$ 13,063.22	1.00%	\$ 363.96	\$ 450,184.61			\$ 1.00
			May-09	2009	02	\$ 449,820.65	\$ 14,515.05	1.00%	\$ 374.85	\$ 464,710.55			\$ 1.00
			Jun-09	2009	02	\$ 464,335.70	\$ 29,612.93	1.00%	\$ 386.95	\$ 494,335.58			\$ 1.00
			Jul-09	2009	03	\$ 493,948.63	\$ 47,641.87	0.55%	\$ 226.39	\$ 541,816.89			\$ 1.00
			Aug-09	2009	03	\$ 541,590.50	\$ 48,571.89	0.55%	\$ 248.23	\$ 590,410.62			\$ 1.00
			Sep-09	2009	03	\$ 590,162.39	\$ 50,239.15	0.55%	\$ 270.49	\$ 640,672.03			\$ 1.00
			Oct-09	2009	04	\$ 640,401.54	\$ 48,984.55	0.55%	\$ 293.52	\$ 689,679.61			\$ 1.00
			Nov-09	2009	04	\$ 689,386.09	\$ 50,295.98	0.55%	\$ 315.97	\$ 739,998.04			\$ 1.00
			Dec-09	2009	04	\$ 739,682.07	\$ 49,276.46	0.55%	\$ 339.02	\$ 789,297.55	\$ 397,589.05		\$ 1.00
			Jan-10	2010	01	\$ 788,958.53	\$ 43,946.09	0.55%	\$ 361.61	\$ 833,266.23			\$ 1.00
			Feb-10	2010	01	\$ 832,904.62	\$ 46,395.05	0.55%	\$ 381.75	\$ 879,681.42			\$ 1.00
			Mar-10	2010	01	\$ 879,299.67	\$ 53,866.70	0.55%	\$ 403.01	\$ 933,569.38			\$ 1.00
			Apr-10	2010	02	\$ 933,166.37	\$ 48,866.73	0.55%	\$ 427.70	\$ 982,460.80			\$ 1.00
			May-10	2010	02	\$ 982,033.10	\$ 45,979.77	0.55%	\$ 450.10	\$ 1,028,462.97			\$ 1.00
			Jun-10	2010	02	\$ 1,028,012.87	\$ 54,553.56	0.55%	\$ 471.17	\$ 1,083,037.60			\$ 1.00
			Jul-10	2010	03	\$ 1,082,566.43	\$ 51,389.09	0.89%	\$ 802.90	\$ 1,134,758.42			\$ 1.00
			Aug-10	2010	03	\$ 1,133,955.52	\$ 49,175.35	0.89%	\$ 841.02	\$ 1,183,971.89			\$ 1.00
			Sep-10	2010	03	\$ 1,183,130.87	\$ 51,629.70	0.89%	\$ 877.49	\$ 1,235,638.06			\$ 1.00
			Oct-10	2010	04	\$ 1,234,760.57	\$ 46,764.24	1.20%	\$ 1,234.76	\$ 1,282,759.57			\$ 1.00
			Nov-10	2010	04	\$ 1,281,524.81	\$ 53,904.81	1.20%	\$ 1,281.52	\$ 1,336,711.14			\$ 1.00
			Dec-10	2010	04	\$ 1,335,429.62	\$ 49,184.69	1.20%	\$ 1,335.43	\$ 1,385,949.74	\$ 604,524.24		\$ 1.00
			Jan-11	2011	01	\$ 1,384,614.31	\$ 51,831.41	1.47%	\$ 1,696.15	\$ 1,438,141.87			\$ 1.00
			Feb-11	2011	01	\$ 1,436,445.72	\$ 47,379.20	1.47%	\$ 1,759.65	\$ 1,485,584.57			\$ 1.00
			Mar-11	2011	01	\$ 1,483,824.92	\$ 56,749.56	1.47%	\$ 1,817.69	\$ 1,542,392.17			\$ 1.00
			Apr-11	2011	02	\$ 1,540,574.48	\$ 45,213.39	1.47%	\$ 1,887.20	\$ 1,587,675.07			\$ 1.00
			May-11	2011	02	\$ 1,585,787.87	\$ 44,543.94	1.47%	\$ 1,942.59	\$ 1,632,274.40			\$ 1.61
			Jun-11	2011	02	\$ 1,630,331.81	\$ 68,810.40	1.47%	\$ 1,997.16	\$ 1,701,139.37			\$ 1.61
			Jul-11	2011	03	\$ 1,699,142.21	\$ 59,497.16	1.47%	\$ 2,081.45	\$ 1,760,720.82			\$ 1.61
			Aug-11	2011	03	\$ 1,758,639.37	\$ 107,629.14	1.47%	\$ 2,154.33	\$ 1,868,422.84			\$ 1.61
			Sep-11	2011	03	\$ 1,866,268.51	\$ 84,089.21	1.47%	\$ 2,286.18	\$ 1,952,643.90			\$ 1.61
			Oct-11	2011	04	\$ 1,950,357.72	\$ 77,006.55	1.47%	\$ 2,389.19	\$ 2,029,753.46			\$ 1.61
			Nov-11	2011	04	\$ 2,027,364.27	\$ 87,721.70	1.47%	\$ 2,483.52	\$ 2,117,569.49			\$ 1.61
			Dec-11	2011	04	\$ 2,115,085.97	\$ 77,190.94	1.47%	\$ 2,590.98	\$ 2,194,867.89	\$ 832,748.69		\$ 1.61
			Jan-12	2012	01	\$ 2,192,276.91	\$ 91,554.11	1.47%	\$ 2,685.54	\$ 2,286,516.56			\$ 1.61
			Feb-12	2012	01	\$ 2,283,831.02	\$ 82,138.77	1.47%	\$ 2,797.69	\$ 2,368,767.48			\$ 1.61



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)
			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	\$ 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%
2012 Q1	1.47%	4.29%
2012 Q2	0.00%	4.29%
2012 Q3	0.00%	4.29%
2012 Q4	0.00%	4.29%

Dec-07	2007	Q4	-
Jan-08	2008	Q1	-
Feb-08	2008	Q1	-
Mar-08	2008	Q1	-
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%	-	-
		-	4.59%	-	-
		-	5.14%	-	-
		-	5.14%	-	-



EXHIBIT C

RESPONSE TO BOARD STAFF INTERROGATORY 10 a)

Cambridge and North Dumfries Hydro Inc. EB-2012-0086



Choose Your Utility:

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

Application Contact Information

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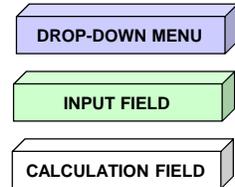
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We are applying for rates effective: May 1, 2012

Last COS Re-based Year: 2010

Legend



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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.



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	2006	2007	2008	2009	2010	2011	2012 and later	Total	
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast		
Smart Meter Installation Plan									
Actual/Planned number of Smart Meters installed during the Calendar Year									
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 on)	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 Asset type must be selected to enable calculations								
1.1.1 Smart Meters (may include new meters and modules, etc.)	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	\$	
	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.)								-	
Total Advanced Metering Communications Devices (AMCD)	\$ -	\$ -	\$ -	\$ 1,241,940	\$ 5,675,187	\$ 402,965	\$ -	\$ 7,320,092	
1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)									
	Asset Type								
1.2.1 Collectors	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	\$	
	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.)								-	
Total Advanced Metering Regional Collector (AMRC) (Includes LAN)	\$ -	\$ -	\$ 148,665	\$ 276,076	\$ -	\$ -	\$ -	\$ 424,741	

1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

	Asset Type	Audited Actual	Forecast						
1.3.1 Computer Hardware	Computer Hardware				205,278		0		\$ 205,278
1.3.2 Computer Software									\$ -
1.3.3 Computer Software Licences & Installation (includes hardware and software) <i>(may include AS/400 disk space, backup and recovery computer, UPS, etc.)</i>									\$ -
Total Advanced Metering Control Computer (AMCC)		\$ -	\$ -	\$ -	\$ 205,278	\$ -	\$ -	\$ -	\$ 205,278

1.4 WIDE AREA NETWORK (WAN)

	Asset Type	Audited Actual	Forecast						
1.4.1 Activation Fees									\$ -
Total Wide Area Network (WAN)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY

	Asset Type	Audited Actual	Forecast						
1.5.1 Customer Equipment <i>(including repair of damaged equipment)</i>	Other Equipment								\$ -
1.5.2 AMI Interface to CIS	Computer Software				22,550	11,890	8,753		\$ 43,193
1.5.3 Professional Fees	Computer Hardware				39,459				\$ 39,459
1.5.4 Integration	Computer Hardware								\$ -
1.5.5 Program Management	Computer Software			24,197	36,570	40,779	43,687		\$ 145,233
1.5.6 Other AMI Capital	Computer Software						0		\$ -
Total Other AMI Capital Costs Related to Minimum Functionality		\$ -	\$ -	\$ 24,197	\$ 98,579	\$ 52,669	\$ 52,440	\$ -	\$ 227,885
Total Capital Costs Related to Minimum Functionality		\$ -	\$ -	\$ 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)

	Asset Type	Audited Actual	Forecast						
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	Computer Software								\$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software								\$ -
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		\$ -	\$ -	\$ 172,862	\$ 1,821,873	\$ 5,727,856	\$ 455,405	\$ -	\$ 8,177,996

2 OM&A Expenses

	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
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.)				68,823	94,291	92,842	190,095	\$ 446,050
2.3.2 Software Maintenance (may include maintenance support, etc.)						0		\$ -
2.3.2 Other (please specify)								\$ -
Total Incremental AMCC OM&A Costs	\$ -	\$ -	\$ -	\$ 68,823	\$ 94,291	\$ 92,842	\$ 190,095	\$ 446,050
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 FUNCTIONALIT								
2.5.1 Business Process Redesign							13,690	\$ 13,690
2.5.2 Customer Communication (may include project communication, etc.)				3,718	34,509	0	29,876	\$ 68,104
2.5.3 Program Management							41,069	\$ 41,069
2.5.4 Change Management (may include training, etc.)								\$ -
2.5.5 Administration Costs			76	6,541	0			\$ 6,617
2.5.6 Other AMI Expenses (please specify)				741	104,817	21,357	581,280	\$ 708,196
Total Other AMI OM&A Costs Related to Minimum Functionality	\$ -	\$ -	\$ 76	\$ 11,000	\$ 139,327	\$ 21,357	\$ 665,915	\$ 837,675
TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	\$ -	\$ -	\$ 76	\$ 79,823	\$ 233,617	\$ 114,199	\$ 856,010	\$ 1,283,726
2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALIT								
(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	\$ -	\$ -	\$ 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	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 172,862</u>	<u>\$ 1,821,873</u>	<u>\$ 5,727,856</u>	<u>\$ 455,405</u>	<u>\$ -</u>	<u>\$ 8,177,996</u>
3.2	OM&A Costs								
3.2.1	Total OM&A Costs	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 76</u>	<u>\$ 79,823</u>	<u>\$ 233,617</u>	<u>\$ 114,199</u>	<u>\$ 856,010</u>	<u>\$ 1,283,726</u>



Cambridge and North Dumfries Hydro Inc.

	2006	2007
Cost of Capital		
Capital Structure¹		
Deemed Short-term Debt Capitalization		
Deemed Long-term Debt Capitalization	50.0%	50.0%
Deemed Equity Capitalization	50.0%	50.0%
Preferred Shares		
Total	100.0%	100.0%
Cost of Capital Parameters		
Deemed Short-term Debt Rate		
Long-term Debt Rate (actual/embedded/deemed) ²	4.99%	4.99%
Target Return on Equity (ROE)	9.0%	9.00%
Return on Preferred Shares		
WACC	7.00%	7.00%
Working Capital Allowance		
Working Capital Allowance Rate	15.0%	15.0%
<i>(% of the sum of Cost of Power + controllable expenses)</i>		
Taxes/PILs		
Aggregate Corporate Income Tax Rate	36.12%	36.12%
Capital Tax (until July 1st, 2010)	0.30%	0.225%
Depreciation Rates		
<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

- ¹ Planned smart meter installations occur evenly throughout the year.
- ² Fiscal calendar year (January 1 to December 31) used.
- ³ 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.

	2006	2007	2008	2009	2010	2011
Net Fixed Assets - Smart Meters						
Gross Book Value						
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	\$ 402,985
Retirements/Removals (if applicable)						
Closing Balance	\$ -	\$ -	\$ 148,665	\$ 1,666,681	\$ 7,341,868	\$ 7,744,833
Accumulated Depreciation						
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
Net Book Value						
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						
Gross Book Value						
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
Accumulated Depreciation						
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
Net Book Value						
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)						
Gross Book Value						
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
Accumulated Depreciation						
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
Net Book Value						
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
\$	-
\$	<u>7,744,833</u>

-\$	868,642
-\$	<u>516,322</u>
-\$	<u>1,384,964</u>

\$	6,876,191
\$	6,359,869
\$	<u>6,618,030</u>

\$	244,737
\$	-
\$	<u>244,737</u>

-\$	122,369
-\$	<u>48,947</u>
-\$	<u>171,316</u>

\$	122,369
\$	73,421
\$	<u>97,895</u>

\$	188,426
\$	-
\$	<u>188,426</u>

-\$	112,571
-\$	<u>62,809</u>
-\$	<u>175,380</u>

\$	75,855
\$	13,046
\$	<u>44,451</u>

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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
Average Net Fixed Asset Values (from Sheet 4)							
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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Net Fixed Assets	\$ -	\$ -	\$ 81,937	\$ 1,023,358	\$ 4,553,879	\$ 7,149,665	\$ 6,760,375
Working Capital							
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
Incremental Smart Meter Rate Base	\$ -	\$ -	\$ 81,948	\$ 1,035,332	\$ 4,588,921	\$ 7,166,795	\$ 6,888,777
Return on Rate Base							
Capital Structure							
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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capitalization	\$ -	\$ -	\$ 81,948	\$ 1,035,332	\$ 4,588,921	\$ 7,166,795	\$ 6,888,777
Return on							
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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Return on Capital	\$ -	\$ -	\$ 5,624	\$ 69,640	\$ 312,836	\$ 488,575	\$ 469,622
Operating Expenses	\$ -	\$ -	\$ 76	\$ 79,823	\$ 233,617	\$ 114,199	\$ 856,010
Amortization Expenses (from Sheet 4)							
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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Amortization Expense in Year	\$ -	\$ -	\$ 8,988	\$ 102,904	\$ 385,783	\$ 605,906	\$ 628,078
Incremental Revenue Requirement before Taxes/PILs	\$ -	\$ -	\$ 14,688	\$ 252,367	\$ 932,236	\$ 1,208,680	\$ 1,953,710
Calculation of Taxable Income							
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
Net Income for Taxes/PILs	\$ -	\$ -	\$ 3,444	\$ 40,347	\$ 180,804	\$ 282,372	\$ 271,418
Grossed-up Taxes/PILs (from Sheet 7)	\$ -	\$ -	\$ 284.00	\$ 6,646.83	\$ 13,466.14	\$ 105,058.36	\$ 118,801.40
Revenue Requirement, including Grossed-up Taxes/PILs	\$ -	\$ -	\$ 14,972	\$ 245,720	\$ 918,770	\$ 1,313,739	\$ 2,072,512



Ontario Energy Board

Smart Meter Model

Cambridge and North Dumfries Hydro Inc.

PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
INCOME TAX							
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
ONTARIO CAPITAL TAX							
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
Gross Up PILs							
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





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	01	\$ -	\$ -	0.00%	\$ -	\$ -			
2006 Q2	4.14%	4.68%	Feb-06	2006	01	\$ -	\$ -	0.00%	\$ -	\$ -			
2006 Q3	4.59%	5.05%	Mar-06	2006	01	\$ -	\$ -	0.00%	\$ -	\$ -			
2006 Q4	4.59%	4.72%	Apr-06	2006	02	\$ -	\$ -	4.14%	\$ -	\$ -			
2007 Q1	4.59%	4.72%	May-06	2006	02	\$ -	\$ -	4.14%	\$ -	\$ -			
2007 Q2	4.59%	4.72%	Jun-06	2006	02	\$ -	\$ 5,948.57	4.14%	\$ -	\$ 5,948.57			\$ 0.27
2007 Q3	4.59%	5.18%	Jul-06	2006	03	\$ 5,948.57	\$ 11,259.88	4.59%	\$ 22.75	\$ 17,231.20			\$ 0.27
2007 Q4	5.14%	5.18%	Aug-06	2006	03	\$ 17,208.45	\$ 13,331.09	4.59%	\$ 65.82	\$ 30,605.36			\$ 0.27
2008 Q1	5.14%	5.18%	Sep-06	2006	03	\$ 30,539.54	\$ 12,382.03	4.59%	\$ 116.81	\$ 43,038.38			\$ 0.27
2008 Q2	4.08%	5.18%	Oct-06	2006	04	\$ 42,921.57	\$ 12,752.32	4.59%	\$ 164.18	\$ 55,838.07			\$ 0.27
2008 Q3	3.35%	5.43%	Nov-06	2006	04	\$ 55,673.89	\$ 13,722.44	4.59%	\$ 212.95	\$ 69,609.28			\$ 0.27
2008 Q4	3.35%	5.43%	Dec-06	2006	04	\$ 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	01	\$ 81,586.73	\$ 13,302.95	4.59%	\$ 312.07	\$ 95,201.75			\$ 0.27
2009 Q2	1.00%	6.61%	Feb-07	2007	01	\$ 94,889.68	\$ 12,840.62	4.59%	\$ 362.95	\$ 108,093.25			\$ 0.27
2009 Q3	0.55%	5.67%	Mar-07	2007	01	\$ 107,730.30	\$ 13,337.47	4.59%	\$ 412.07	\$ 121,479.84			\$ 0.27
2009 Q4	0.55%	4.66%	Apr-07	2007	02	\$ 121,067.77	\$ 12,805.23	4.59%	\$ 463.08	\$ 134,336.08			\$ 0.27
2010 Q1	0.55%	4.34%	May-07	2007	02	\$ 133,873.00	\$ 13,399.27	4.59%	\$ 512.06	\$ 147,784.33			\$ 0.27
2010 Q2	0.55%	4.34%	Jun-07	2007	02	\$ 147,272.27	\$ 12,819.77	4.59%	\$ 563.32	\$ 160,655.36			\$ 0.27
2010 Q3	0.89%	4.66%	Jul-07	2007	03	\$ 160,092.04	\$ 13,362.81	4.59%	\$ 612.35	\$ 174,067.20			\$ 0.27
2010 Q4	1.20%	4.01%	Aug-07	2007	03	\$ 173,454.85	\$ 13,439.51	4.59%	\$ 663.46	\$ 187,557.82			\$ 0.27
2011 Q1	1.47%	4.29%	Sep-07	2007	03	\$ 186,894.36	\$ 12,728.90	4.59%	\$ 714.87	\$ 200,338.13			\$ 0.27
2011 Q2	1.47%	4.29%	Oct-07	2007	04	\$ 199,623.26	\$ 12,778.15	5.14%	\$ 855.05	\$ 213,256.46			\$ 0.27
2011 Q3	1.47%	4.29%	Nov-07	2007	04	\$ 212,401.41	\$ 14,663.43	5.14%	\$ 909.79	\$ 227,974.63			\$ 0.27
2011 Q4	1.47%	4.29%	Dec-07	2007	04	\$ 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	01	\$ 238,584.63	\$ 13,451.80	5.14%	\$ 1,021.94	\$ 253,058.37			\$ 0.27
2012 Q2		4.29%	Feb-08	2008	01	\$ 252,036.43	\$ 12,869.84	5.14%	\$ 1,079.56	\$ 265,985.83			\$ 0.27
2012 Q3		4.29%	Mar-08	2008	01	\$ 264,906.27	\$ 13,462.14	5.14%	\$ 1,134.68	\$ 279,503.09			\$ 0.27
2012 Q4		4.29%	Apr-08	2008	02	\$ 278,368.41	\$ 12,898.11	4.08%	\$ 946.45	\$ 292,212.97			\$ 0.27
			May-08	2008	02	\$ 291,266.52	\$ 13,479.94	4.08%	\$ 990.31	\$ 305,736.77			\$ 0.27
			Jun-08	2008	02	\$ 304,746.46	\$ 12,904.41	4.08%	\$ 1,036.14	\$ 318,687.01			\$ 0.27
			Jul-08	2008	03	\$ 317,650.87	\$ 14,058.56	3.35%	\$ 886.78	\$ 332,596.21			\$ 0.27
			Aug-08	2008	03	\$ 331,709.43	\$ 12,282.61	3.35%	\$ 926.02	\$ 344,918.06			\$ 0.27
			Sep-08	2008	03	\$ 343,992.04	\$ 13,478.54	3.35%	\$ 960.31	\$ 358,430.89			\$ 0.27
			Oct-08	2008	04	\$ 357,470.58	\$ 13,517.65	3.35%	\$ 997.94	\$ 371,986.17			\$ 0.27
			Nov-08	2008	04	\$ 370,988.23	\$ 12,830.00	3.35%	\$ 1,035.68	\$ 384,853.91			\$ 0.27
			Dec-08	2008	04	\$ 383,818.23	\$ 12,881.96	3.35%	\$ 1,071.49	\$ 397,771.68	\$ 170,202.86		\$ 0.27
			Jan-09	2009	01	\$ 396,700.19	\$ 13,492.44	2.45%	\$ 809.93	\$ 411,002.56			\$ 0.27
			Feb-09	2009	01	\$ 410,192.63	\$ 12,950.58	2.45%	\$ 837.48	\$ 423,980.69			\$ 0.27
			Mar-09	2009	01	\$ 423,143.21	\$ 13,614.22	2.45%	\$ 863.92	\$ 437,621.35			\$ 0.27
			Apr-09	2009	02	\$ 436,757.43	\$ 13,063.22	1.00%	\$ 363.96	\$ 450,184.61			\$ 1.00
			May-09	2009	02	\$ 449,820.65	\$ 14,515.05	1.00%	\$ 374.85	\$ 464,710.55			\$ 1.00
			Jun-09	2009	02	\$ 464,335.70	\$ 29,612.93	1.00%	\$ 386.95	\$ 494,335.58			\$ 1.00
			Jul-09	2009	03	\$ 493,948.63	\$ 47,641.87	0.55%	\$ 226.39	\$ 541,816.89			\$ 1.00
			Aug-09	2009	03	\$ 541,590.50	\$ 48,571.89	0.55%	\$ 248.23	\$ 590,410.62			\$ 1.00
			Sep-09	2009	03	\$ 590,162.39	\$ 50,239.15	0.55%	\$ 270.49	\$ 640,672.03			\$ 1.00
			Oct-09	2009	04	\$ 640,401.54	\$ 48,984.55	0.55%	\$ 293.52	\$ 689,679.61			\$ 1.00
			Nov-09	2009	04	\$ 689,386.09	\$ 50,295.98	0.55%	\$ 315.97	\$ 739,998.04			\$ 1.00
			Dec-09	2009	04	\$ 739,682.07	\$ 49,276.46	0.55%	\$ 339.02	\$ 789,297.55	\$ 397,589.05		\$ 1.00
			Jan-10	2010	01	\$ 788,958.53	\$ 43,946.09	0.55%	\$ 361.61	\$ 833,266.23			\$ 1.00
			Feb-10	2010	01	\$ 832,904.62	\$ 46,395.05	0.55%	\$ 381.75	\$ 879,681.42			\$ 1.00
			Mar-10	2010	01	\$ 879,299.67	\$ 53,866.70	0.55%	\$ 403.01	\$ 933,569.38			\$ 1.00
			Apr-10	2010	02	\$ 933,166.37	\$ 48,866.73	0.55%	\$ 427.70	\$ 982,460.80			\$ 1.00
			May-10	2010	02	\$ 982,033.10	\$ 45,979.77	0.55%	\$ 450.10	\$ 1,028,462.97			\$ 1.00
			Jun-10	2010	02	\$ 1,028,012.87	\$ 54,553.56	0.55%	\$ 471.17	\$ 1,083,037.60			\$ 1.00
			Jul-10	2010	03	\$ 1,082,566.43	\$ 51,389.09	0.89%	\$ 802.90	\$ 1,134,758.42			\$ 1.00
			Aug-10	2010	03	\$ 1,133,955.52	\$ 49,175.35	0.89%	\$ 841.02	\$ 1,183,971.89			\$ 1.00
			Sep-10	2010	03	\$ 1,183,130.87	\$ 51,629.70	0.89%	\$ 877.49	\$ 1,235,638.06			\$ 1.00
			Oct-10	2010	04	\$ 1,234,760.57	\$ 46,764.24	1.20%	\$ 1,234.76	\$ 1,282,759.57			\$ 1.00
			Nov-10	2010	04	\$ 1,281,524.81	\$ 53,904.81	1.20%	\$ 1,281.52	\$ 1,336,711.14			\$ 1.00
			Dec-10	2010	04	\$ 1,335,429.62	\$ 49,184.69	1.20%	\$ 1,335.43	\$ 1,385,949.74	\$ 604,524.24		\$ 1.00
			Jan-11	2011	01	\$ 1,384,614.31	\$ 51,831.41	1.47%	\$ 1,696.15	\$ 1,438,141.87			\$ 1.00
			Feb-11	2011	01	\$ 1,436,445.72	\$ 47,379.20	1.47%	\$ 1,759.65	\$ 1,485,584.57			\$ 1.00
			Mar-11	2011	01	\$ 1,483,824.92	\$ 56,749.56	1.47%	\$ 1,817.69	\$ 1,542,392.17			\$ 1.00
			Apr-11	2011	02	\$ 1,540,574.48	\$ 45,213.39	1.47%	\$ 1,887.20	\$ 1,587,675.07			\$ 1.00
			May-11	2011	02	\$ 1,585,787.87	\$ 44,543.94	1.47%	\$ 1,942.59	\$ 1,632,274.40			\$ 1.61
			Jun-11	2011	02	\$ 1,630,331.81	\$ 68,810.40	1.47%	\$ 1,997.16	\$ 1,701,139.37			\$ 1.61
			Jul-11	2011	03	\$ 1,699,142.21	\$ 59,497.16	1.47%	\$ 2,081.45	\$ 1,760,720.82			\$ 1.61
			Aug-11	2011	03	\$ 1,758,639.37	\$ 107,629.14	1.47%	\$ 2,154.33	\$ 1,868,422.84			\$ 1.61
			Sep-11	2011	03	\$ 1,866,268.51	\$ 84,089.21	1.47%	\$ 2,286.18	\$ 1,952,643.90			\$ 1.61
			Oct-11	2011	04	\$ 1,950,357.72	\$ 77,006.55	1.47%	\$ 2,389.19	\$ 2,029,753.46			\$ 1.61
			Nov-11	2011	04	\$ 2,027,364.27	\$ 87,721.70	1.47%	\$ 2,483.52	\$ 2,117,569.49			\$ 1.61
			Dec-11	2011	04	\$ 2,115,085.97	\$ 77,190.94	1.47%	\$ 2,590.98	\$ 2,194,867.89	\$ 832,748.69		\$ 1.61
			Jan-12	2012	01	\$ 2,192,276.91	\$ 91,554.11	1.47%	\$ 2,685.54	\$ 2,286,516.56			\$ 1.61
			Feb-12	2012	01	\$ 2,283,831.02	\$ 82,138.77	1.47%	\$ 2,797.69	\$ 2,368,767.48			\$ 1.61



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)
			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	\$ 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%
2012 Q1	1.47%	4.29%
2012 Q2	0.00%	4.29%
2012 Q3	0.00%	4.29%
2012 Q4	0.00%	4.29%

Dec-07	2007	Q4	-
Jan-08	2008	Q1	-
Feb-08	2008	Q1	-
Mar-08	2008	Q1	-
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	76.10
Feb-09	2009	Q1	2,714.33
Mar-09	2009	Q1	3,167.55
Apr-09	2009	Q2	3,698.51
May-09	2009	Q2	3,805.43
Jun-09	2009	Q2	3,980.64
Jul-09	2009	Q3	4,191.51
Aug-09	2009	Q3	4,355.77
Sep-09	2009	Q3	5,099.07
Oct-09	2009	Q4	5,382.34
Nov-09	2009	Q4	5,567.88
Dec-09	2009	Q4	58,972.05
Jan-10	2010	Q1	79,900.25
Feb-10	2010	Q1	109,119.04
Mar-10	2010	Q1	137,895.77
Apr-10	2010	Q2	178,938.64
May-10	2010	Q2	226,539.78
Jun-10	2010	Q2	279,471.30
Jul-10	2010	Q3	322,004.41
Aug-10	2010	Q3	357,468.49
Sep-10	2010	Q3	393,440.96
Oct-10	2010	Q4	478,547.35
Nov-10	2010	Q4	516,883.20
Dec-10	2010	Q4	556,779.45
Jan-11	2011	Q1	604,803.18
Feb-11	2011	Q1	663,522.19
Mar-11	2011	Q1	713,350.35
Apr-11	2011	Q2	770,985.99
May-11	2011	Q2	829,963.52
Jun-11	2011	Q2	889,819.20
Jul-11	2011	Q3	947,601.26
Aug-11	2011	Q3	1,004,614.70
Sep-11	2011	Q3	1,061,540.87
Oct-11	2011	Q4	1,117,578.25
Nov-11	2011	Q4	1,173,893.38
Dec-11	2011	Q4	1,232,919.39



Jan-12	2012	Q1	1,301,573.80
Feb-12	2012	Q1	1,301,573.80
Mar-12	2012	Q1	1,301,573.80
Apr-12	2012	Q2	1,301,573.80
May-12	2012	Q2	1,301,573.80
Jun-12	2012	Q2	1,301,573.80
Jul-12	2012	Q3	1,301,573.80
Aug-12	2012	Q3	1,301,573.80
Sep-12	2012	Q3	1,301,573.80
Oct-12	2012	Q4	1,301,573.80
Nov-12	2012	Q4	1,301,573.80
Dec-12	2012	Q4	1,301,573.80



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%	-	-
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\$ -		-	3.35%	-	-
\$ -		-	3.35%	-	-
\$ 76.10		76.10	3.35%	-	-
\$ 2,638.23		2,714.33	2.45%	0.16	0.16
\$ 453.22		3,167.55	2.45%	5.54	5.70
\$ 530.96		3,698.51	2.45%	6.47	12.16
\$ 106.92		3,805.43	1.00%	3.08	15.25
\$ 175.21		3,980.64	1.00%	3.17	18.42
\$ 210.87		4,191.51	1.00%	3.32	21.73
\$ 164.26		4,355.77	0.55%	1.92	23.66
\$ 743.30		5,099.07	0.55%	2.00	25.65
\$ 283.27		5,382.34	0.55%	2.34	27.99
\$ 185.54		5,567.88	0.55%	2.47	30.46
\$ 53,404.17		58,972.05	0.55%	2.55	33.01
\$ 20,928.20		79,900.25	0.55%	27.03	60.04
\$ 4,944.98	\$ 24,273.81	109,119.04	0.55%	36.62	96.66
\$ 4,502.92	\$ 24,273.81	137,895.77	0.55%	50.01	146.67
\$ 16,769.06	\$ 24,273.81	178,938.64	0.55%	63.20	209.87
\$ 23,327.33	\$ 24,273.81	226,539.78	0.55%	82.01	291.89
\$ 28,657.71	\$ 24,273.81	279,471.30	0.55%	103.83	395.72
\$ 18,259.30	\$ 24,273.81	322,004.41	0.55%	128.09	523.81
\$ 11,190.27	\$ 24,273.81	357,468.49	0.89%	238.82	762.63
\$ 11,698.66	\$ 24,273.81	393,440.96	0.89%	265.12	1,027.75
\$ 60,832.58	\$ 24,273.81	478,547.35	0.89%	291.80	1,319.55
\$ 14,062.04	\$ 24,273.81	516,883.20	1.20%	478.55	1,798.10
\$ 15,622.44	\$ 24,273.81	556,779.45	1.20%	516.88	2,314.98
\$ 23,749.96	\$ 24,273.77	604,803.18	1.20%	556.78	2,871.76
\$ 10,171.40	\$ 48,547.61	663,522.19	1.47%	740.88	3,612.65
\$ 1,280.55	\$ 48,547.61	713,350.35	1.47%	812.81	4,425.46
\$ 9,088.03	\$ 48,547.61	770,985.99	1.47%	873.85	5,299.32
\$ 10,429.92	\$ 48,547.61	829,963.52	1.47%	944.46	6,243.77
\$ 11,308.07	\$ 48,547.61	889,819.20	1.47%	1,016.71	7,260.48
\$ 9,234.45	\$ 48,547.61	947,601.26	1.47%	1,090.03	8,350.51
\$ 8,465.83	\$ 48,547.61	1,004,614.70	1.47%	1,160.81	9,511.32
\$ 8,378.56	\$ 48,547.61	1,061,540.87	1.47%	1,230.65	10,741.97
\$ 7,489.77	\$ 48,547.61	1,117,578.25	1.47%	1,300.39	12,042.36
\$ 7,767.52	\$ 48,547.61	1,173,893.38	1.47%	1,369.03	13,411.39
\$ 10,478.40	\$ 48,547.61	1,232,919.39	1.47%	1,438.02	14,849.41
\$ 20,106.77	\$ 48,547.64	1,301,573.80	1.47%	1,510.33	16,359.74

		1,301,573.80	1.47%	1,594.43	17,954.17
		1,301,573.80	1.47%	1,594.43	19,548.59
		1,301,573.80	1.47%	1,594.43	21,143.02
		1,301,573.80	1.47%	1,594.43	22,737.45
		1,301,573.80	0.00%	-	22,737.45
		1,301,573.80	0.00%	-	22,737.45
		1,301,573.80	0.00%	-	22,737.45
		1,301,573.80	0.00%	-	22,737.45
		1,301,573.80	0.00%	-	22,737.45
		1,301,573.80	0.00%	-	22,737.45
		1,301,573.80	0.00%	-	22,737.45
		1,301,573.80	0.00%	-	22,737.45
		1,301,573.80	0.00%	-	22,737.45

\$ 427,716.77 \$ 873,857.03 \$ 1,301,573.80



EXHIBIT D

RESPONSE TO BOARD STAFF INTERROGATORY 11 b)

Cambridge and North Dumfries Hydro Inc. EB-2012-0086

	2008	2009	2010	2011		Total 2008 to 2011	Explanation Allocator	ID and Factors	Total	Residential
Revenue Requirement for the Historical Years	\$14,972.00	\$245,720.00	\$918,770.00	\$1,313,738.00		\$2,493,200.00				
Total Return on Capital	\$5,624.00	\$69,640.00	\$312,836.00	\$488,575.00		\$876,675.00	Capital Costs of the Meters		100.00%	74.14%
						Allocated per Class			\$876,675.00	\$649,966.85
Amortization Expenses	\$8,988.00	\$102,904.00	\$385,783.00	\$605,906.00		\$1,103,581.00	Capital Costs of the Meters		100.00%	74.14%
						Allocated per Class			\$1,103,581.00	\$818,194.95
Operating Expenses (Note 1)	\$76.00	\$79,823.00	\$233,617.00	\$114,199.00		\$427,715.00	Number of Smart Meters Installed for each Class		50,709	46,067
						Allocated per Class			\$427,715.00	\$388,561.14
Grossed-up Taxes/PILs	\$284.00	-\$6,647.00	-\$13,466.00	\$105,058.00		\$85,229.00	Revenue Requirement allocated to each Class before PILs		\$2,407,971.00	\$1,856,722.94
						Allocated per Class			\$85,229.00	\$65,717.83
									Total	Residential
TOTAL REVENUE REQUIREMENT						\$2,493,200.00			\$2,493,200.00	\$1,922,440.77
							Percentage of costs allocated to Residential and GS < 50 kW customer classes		100.00%	77.11%
						Revenue Generated from Smart Meter Funding Adder	\$2,564,883.95			
							SMFA Revenues directly attributable to class			89.20%
							Residual SMFA revenues (from other metered classes) attributed evenly			0.79%
							Total			89.99%
						Revenues Generated from SMFA	\$2,564,883.95			\$ 2,308,108.88
						Net Deferred Revenue Requirement	-\$71,683.95			
							Allocated per Class		-\$71,683.95	-\$385,668.11
							Number of Metered Customers (2011)			46,067
							Smart Meter Disposition Rate Rider			-\$0.38

Smart Meter Funding Adder Revenues Year	Estimated SMFA Revenues			
	Residential	GS < 50 kW	Other Metered Customer Classes	Total
2006 (May 1, 2006)	\$ 72,763.14	\$ 7,695.04	\$ 1,128.55	\$ 81,586.73
2007	\$ 140,299.98	\$ 14,403.99	\$ 2,293.93	\$ 156,997.90
2008	\$ 141,073.05	\$ 14,754.30	\$ 2,288.21	\$ 158,115.56
2009	\$ 349,395.05	\$ 36,608.07	\$ 6,255.22	\$ 392,258.34
2010	\$ 532,183.17	\$ 54,866.77	\$ 8,605.84	\$ 595,655.78
2011	\$ 719,831.48	\$ 73,945.52	\$ 13,915.60	\$ 807,692.60
2012 (to April 30, 2012)	\$ 332,338.72	\$ 34,277.09	\$ 5,961.23	\$ 372,577.04
	\$ 2,287,884.59	\$ 236,550.78	\$ 40,448.58	\$ 2,564,883.95
	89.20%	9.22%	1.58%	100.00%
	77.11%	22.89%		
Even allocation	50.00%	50.00%		
Allocation of 1.58% to Res and GS < 50 kW	0.789%	0.789%		
	89.99%	10.01%		

General Service Less than 50 kW
25.86% \$226,708.16
25.86% \$285,386.05
4,642 \$39,153.86
\$551,248.06 \$19,511.17
General Service Less than 50 kW
\$570,759.23
22.89%
9.22%
0.79%
10.01% \$256,775.07
\$313,984.16 4,642
\$3.07

