



1 Greendale Drive, Caledonia, ON, N3W 2J3 Tel: (905) 765-5344 Fax: (905) 765-5316

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Ontario Energy Board
P.O. Box 2319
27th Floor, 2300 Yonge Street
Toronto, ON M4P 1E4

Attention: Kirsten Walli
Board Secretary

**Re: Haldimand County Hydro Inc.
Smart Meter Cost Recovery Application (EB-2012-0272)
Responses to Interrogatories**

Dear Ms. Walli:

Haldimand County Hydro Inc. filed an application with the Ontario Energy Board (the "Board") on July 18, 2012 seeking approval for rates with respect to the recovery of smart meter costs to be effective November 1, 2012.

Pursuant to the *Notice of Application* issued July 31, 2012, Board Staff and Vulnerable Energy Consumers Coalition ("VECC") filed interrogatories on August 29, 2012 and August 30, 2012 respectively. Haldimand County Hydro was required to file responses by September 12, 2012.

Two hard copies of Haldimand County Hydro's complete responses to the Board Staff and VECC interrogatories are now enclosed. Electronic copies in PDF format, as well as the associated models in Excel format were submitted through the Board's *Regulatory Electronic Submission System* ("RESS").

In addition, electronic copies in PDF format were forwarded via email to the Vulnerable Energy Consumers Coalition ("VECC"), the only intervenor of record.

All of which is respectfully submitted for the Board's consideration.

Yours truly,
HALDIMAND COUNTY HYDRO INC.

Original signed by

Jacqueline A. Scott
Finance Manager

**Haldimand County Hydro Inc.
2012 Smart Meter Cost Recovery
EB-2012-0272
Board Staff Interrogatory Responses**

1. Ref: Application, page 36 – Smart Meter Capital Costs

On page 36 of the Application, Haldimand documents that the installation vendor contract with Olameter expired and that the utility contracted with another third party vendor, Rodan Energy Solutions to continue smart meter deployment.

- a) Why did Haldimand decide not to extend or negotiate a contract with Olameter past the initial contract expiration?

Response

As indicated in its Application, Haldimand County Hydro Inc. ("HCHI") is a member of the Niagara Erie Power Alliance ("NEPA"), a cooperative arrangement of local distribution companies in south central Ontario. Nine NEPA members developed a collective and collaborative approach to planning, as well as procurement of the Advanced Metering Infrastructure ("AMI"). The Olameter contract was awarded through a NEPA Request for Proposal and was specific to the Residential Smart Meter installations. After completion of the "mass install", Olameter crews moved to other areas. The remaining meters were more complex transformer rated installations that required more expertise and the need to use Journeyperson Meter Technicians. Olameter was not able to provide this level of expertise as part of their contract.

- b) By what process and criteria did Haldimand select Rodan Energy Solutions? Please provide a summary.

Response

Rodan Energy Solutions ("Rodan") was selected since they were able to provide qualified and experienced Meter Technicians to safely perform this work. At the time, HCHI was not aware of another company that was able to provide these services.

- c) Please summarize if the agreement with Rodan Energy Solutions is more costly than, or offers benefits, relative to the initial contract with Olameter.

Response

It is difficult to compare the two agreements as they are completely different. The Olameter agreement was a per unit price for a meter change on a single phase Residential service. The Rodan agreement is an hourly rate to complete work on complex transformer rated single phase and three phase services.

Rodan was able to provide experienced Meter Technicians that were capable of completing and working on any metering installation. Safety of staff was a large consideration in planning and dispatching this work. HCHI represents the amalgamated operations of three former hydro-electric commissions, each of which prior to that amalgamation had purchased former Ontario Hydro assets. Metering standards were all different with these former utilities and as a result, unique conditions and hazards could have been present at any location. The need for experienced and qualified staff was necessary.

2. Ref: Application, page 46 – Sync Operator Position

On page 46 of its Application, Haldimand states:

It was also necessary for Haldimand to include a new position of “Sync Operator” in 2012. During the Smart Meter deployment, the Sync Operator functions were completed by three internal positions which caused delays in day to day activities. Some of these Sync Operator functions include the following:

- a) Synchronization between the AMI, the MDM/R, the ODS, and the Harris billing system;
- b) Gatekeeper to critical service order activity that touches the Smart Meter, such as non-communicating meters;
- c) Ensure accuracy of TOU meter data for billing purposes; and
- d) Monitoring and verification that all Smart Meter data has been processed and meets MDM/R requirements.

During the implementation of Smart Meters Haldimand hired a temporary position in its Customer Service department to accommodate some of the backlog of day to day activities as previously noted in this Application. This temporary position ended February 29, 2012 with the creation of the new position, Sync Operator, who was hired March 14, 2012.

- a) What other functions are there of the Sync Operator?

Response

In addition to the functions listed above, the Sync Operator also has the following key responsibilities:

- 1. Testing of ongoing changes with the MDM/R for version upgrades on file formats and reporting;**
- 2. Testing between the ODS, the CIS billing system, and the MDM/R to ensure information flow;**
- 3. Documenting of processes and procedures for TOU billing and training other staff on those processes and procedures;**
- 4. Overseeing HCHI’s web-based customer tool to review TOU pricing band presentment;**
- 5. Preparing demand reporting to review trends and monitoring of demand usage for the purpose of customer reclassification; and**
- 6. Reviewing and resolving complex adjustments on Smart Meter services.**

With respect to item d) as noted above, the monitoring and verification of Smart Meter data involves significant dedicated time

and investigation particularly depending upon the volume and complexity of the reported exceptions.

- b) Are all functions of the Sync Operator related to the deployment and operation of installed smart meters and associated systems and TOU customer data and billing?

Response

All of the functions of the Sync Operator are related to the deployment and the continued operation of the installed Smart Meters and associated AMI systems and TOU customer data and billing. This position was specifically created to perform new functions as they relate to operating within the Smart Meter environment.

- c) What operational savings or efficiencies has Haldimand realized, or expect to realize, due to the functions of the Sync Operator. For example, if the Sync Operator is the “[g]atekeeper for service order activity ... such as non-communicating meters”, does this relieve work for Haldimand’s trouble report handling system and reduce customer reports through early identification of possible trouble reports, such as outages? How has Haldimand accounted for any efficiencies and savings in its regular operations?

Response

Having the Sync Operator function as part of HCHI’s core team allows for the direct ownership of important billing data. HCHI has realized efficiencies by remaining current with billing and the testing and implementation of industry changes with the MDM/R. Exceptions are cleared in a timely manner that may have otherwise delayed billing and this position contributes to the accurate presentment of customer data.

3. Ref: Sheet 2 “Smart_Meter_Costs” (2.1.1 OM&A Costs)

On sheet 2 of the Residential Smart Meter Model, Haldimand documents OM&A costs for Maintenance of the Advanced Metering Communications Device (“AMCD”) in 2.1.1. The costs have increased from \$69,491 in 2011 to \$106,200 in 2012.

- a) Please explain the increasing costs for AMCD maintenance.

Response

In 2011 the costs, totalling \$65,794 were capitalized from January to June as part of the AMI installation project. After completion of the project, the costs were considered as OM&A expenses. In 2012, the costs have been expensed as OM&A for the entire year.

- b) Is the 2012 estimate of \$106,200 a one-time expense or a recurring expense?

Response

The 2012 estimate of \$106,020 as filed (and not \$106,200) is expected to continue each year; that is, a recurring operating expense.

In response to Board staff IR #8, these costs for the 2012 estimate have been updated to \$105,433 for the Residential customer class.

4. Ref: Sheet 2 “Smart_Meter_Costs” (2.2.1 OM&A Costs)

On sheet 2 of the Residential Smart Meter Model, Haldimand documents OM&A costs for Advanced Metering Regional Collector (“AMRC”) in 2.2.1. The costs have increased from \$98,370 in 2011 to \$129,523 in 2012.

- a) Please explain the increasing costs for AMRC maintenance.

Response

As noted on page 18 of the Manager’s Summary, HCHI’s AMI was purchased from Sensus Metering Systems Inc. (“Sensus”), and for HCHI this included four Tower Gateway Base Stations (TGBs”) in order to ensure coverage in its large service territory. The reported annual costs for the AMRC consist of two components charged monthly by Sensus, including: (i) a “Base Station Service fee”, which is a fee per tower; and (ii) a “Flexnet Monitoring Service fee”, which is a fee per each smart meter. Collectively, these costs have increased from 2011 to 2012 as a result of:

1. In 2011 the Base Station Service fee was reduced for the months of September through December inclusive on account of poor performance; and
2. The Flexnet Monitoring Service fee was waived by Sensus commencing June 2010 to December 2011 inclusive due to meter communication performance not meeting the service level agreement (“SLA”). As a result of the performance levels meeting the SLA, Sensus resumed charging this fee commencing in January 2012, so the estimated annual costs include these fees for 12 months.

At the time of preparing its Application, Haldimand County Hydro Inc. (“HCHI”) had paid reduced service fees to Sensus in accordance with the contract due to performance issues for January through March 2012. For April and May 2012, fees were paid at 100 percent; accordingly, the balance of the year, June through December inclusive, was forecast to be paid in full. Subsequently, however, during the months of June and July 2012 Sensus did not meet performance levels and those two months fees were also reduced by 50%. This adjustment in the 2012 costs has been reflected in the response to Board Staff IR # 8. It is expected that performance levels will improve and HCHI should be paying fees at 100% to Sensus for the months of August through December 2012.

In summary, the increase in costs from 2011 to 2012 for the Residential customer class may be summarized as follows:

- **Base Station Service fees expected to be paid in 2012 less amounts actually paid in 2011 represents an increase of \$8,554; and**
- **Flexnet Monitoring Service fees expected to be paid in 2012 and not paid in 2011 represents an increase of \$22,600.**

All monthly service fees per the Sensus contract are being charged for the AMRC commencing January 2012. Refer to section 18, “Capital and Operating Expenditures – 2011”, pages 39 to 41 of the Application for specifics on the reduced invoice amounts.

- b) Is the 2012 estimate of \$129,523 a one-time expense or a recurring expense?

Response

The 2012 estimate of \$129,523 for the Residential customer class is expected to continue each year; that is, a recurring operating expense.

In response to Board staff IR #8, these costs for the 2012 estimate have been updated to \$116,744 for the Residential customer class.

5. Ref: Smart Meter Model – Sheet 2

Haldimand has documented on Sheet 2 a total of \$1,020,828 for OM&A expenses from 2009 to 2012, for Residential customers. For 2012 alone, the OM&A is estimated at \$376,588. For Haldimand's 18,535 Residential customers, this works out to an incremental OM&A of \$1.69 per month.

- a) Board staff notes that communication expenses for 2009 and 2011 are documented on pages 27 to 29 of Haldimand's Application. Please explain the OM&A expenses documented under "2.5.2 Customer Communication (may include program communication)" for the year 2012.

Response

The OM&A expenses included under 2.5.2 for the year 2012 represent continued Smart Meter education to HCHI's customers to remind them of TOU rates, energy shifting and conservation tips. This is communicated to the customers through the use of a Smart Meter "Smarts" Newsletter that is published periodically throughout the year.

- b) Please explain the OM&A expenses documented under "2.5.3 Program Management" for each of the years 2010, 2011 and 2012. Also explain why the costs are increasing and whether these are one-time expenses or recurring costs.

Response

The OM&A expenses included under 2.5.3 for the years, 2010, 2011, and 2012, are on account of (i) the NEPA group consulting services provided by Util-Assist Inc.; and (ii) the service fees charged by the ODS service provider.

With respect to the NEPA group consulting services, HCHI capitalized these services in section 1.5.3, Professional Fees, that is, up until August 31, 2011 in conjunction with HCHI's cutover to the MDM/R and the transition to TOU billing. Effective September 2011, these consulting costs became an operating expense for HCHI. Accordingly, during 2010 all twelve months of these costs were capitalized, and during 2011 four months were included in operating expenses and for 2012, a full twelve months of costs have been included in operating expenses. These consulting services will be a recurring expense as they relate to facilitating (i) the annual security audit that is performed on the AMI system; (ii) data integration with the MDM/R; and (iii) data integration between the AMI system, the ODS, and the GIS system. With the completion of these integrations, both operational and

engineering efficiencies will be realized. Customer information and distribution system information will be timely and accurate and allow for early identification of trouble reporting of possible outages. It is expected HCHI will require the Util-Assist consulting services for the balance of 2012 and 2013. Total consulting services from Util-Assist included in 2012 total \$12,407 for the Residential customer class.

The balance of the OM&A expenses included under 2.5.3 on account of the monthly ODS service fees did not commence until June 2010, when the ODS became functional. This monthly service fee is based on the number of communicating smart meters. As noted in Section 6 page 22 of HCHI's Application, a change was made from N. Harris Computer Corporation ("Harris") to Kinetiq Canada / Savage Data Systems ("Savage") as the service provider for the ODS. HCHI incurred two sets of service fees for the period October 26, 2011 to February 29, 2012 to ensure Savage met HCHI's needs prior to terminating the contract with Harris. Savage charged HCHI at 50% of total costs for this period of time which amounted to an additional cost of \$2,732 in 2011 and \$2,755 in 2012 for the overlap of service providers for the Residential customer class. As well, in January 2011 the monthly fee was not paid by HCHI to Harris on account of issues with the data provided. A full twelve months of service fees has been included in 2012 in the amount of \$34,492 inclusive of the additional two months of overlap noted above. This monthly ODS service fee will be a recurring expense for HCHI.

In response to Board staff IR #8, these costs for the 2012 estimate have been updated to \$34,563 for the Residential customer class.

- c) Please explain the increasing OM&A expenses under "2.5.5 Administrative Costs" for the period from 2009 to 2012 inclusive. Also explain whether these costs are one-time or recurring.

Responses

The increasing OM&A expenses under 2.5.5 are all related to the temporary contract position hired in the Customer Service Department to backfill the temporarily reassigned permanent Customer Service and Collections Clerk position to the Smart Meter team.

These costs increased year over year due to the number of incremental hours this position worked in each of the years. The costs in 2009 equate to 567 regular hours of additional labour as compared to 1,159 regular hours in 2010 and 1,345 regular hours in 2011. In 2012 this contract position was terminated effective February 29, 2012, and

represented a total of 287 regular hours. The contract position was replaced with the new permanent Sync Operator position, effective March 14, 2012, which is discussed in response to Board Staff IR # 2. The permanent Sync Operator position is at a higher wage grade (versus the contract Customer Service and Collections Clerk) due to the nature of the position and the duties being performed, and the costs incorporated a fully burdened wage rate inclusive of employee benefits.

The permanent Sync Operator position is a fulltime position created specifically for the new Smart Meter environment and will be a recurring cost.

- d) Please provide a full description of the OM&A expenses documented under "2.5.6 Other AMI Expenses". Please explain whether these are one-time or recurring expenses.

Response

The OM&A expenses under section 2.5.6 for the Residential customer class for 2012 include: (i) the annual security audit that is performed by Bell Wurldtech for the AMI system in the amount of \$11,486; (ii) the annual Smart Meter security testing for the Regional Network Interface which is a partnership with the NEPA group using PowerStream's Work Bench in the amount of \$4,418; (iii) the annual maintenance / support fees for the new software required as a result of the Smart Meter network (MDM/R and mCare) in the amount of \$6,552; and (iv) the data services required for the mobile tablets utilized with the workforce management system in the amount of \$3,813. All of these costs will be recurring expenses.

In response to Board staff IR #8, these costs for the 2012 estimate will remain at (i) \$11,486; (ii) \$4,418; and (iii) \$6,552 respectively and updated to (iv) \$3,937 for the Residential customer class.

6. Ref: Smart Meter Model – Taxes/PILS Rates

Haldimand has input the following rates for taxes/PILS rates 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:

Taxes/PILS							
Year	2006	2007	2008	2009	2010	2011	2012
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	29.79%	28.25%	24.33%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%

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

Response

The tax rates referenced in the table above and in the Smart Meter models on Sheet 3 row 40 are the rates approved by the Board in each of HCHI's respective rate applications.

7. Ref: Managers Summary – Comparison of Average Cost per Smart Meter

On page 21 of the Managers Summary Table 9, Haldimand states Capital Expenditures plus Operating Costs equal \$4,524,821. Board staff notes that the total of sheet 2 for all the class-specific Smart Meter Model is \$4,951,065. Please provide a reconciliation of Table 9 with the total capital and OM&A expenditures from sheet 2 of the filed Smart Meter Models.

Response

The following Table 1 details the reconciliation of Table 9 on page 21 of the Application to the total OM&A expenditures from sheet 2 of the filed Smart Meter Models:

Table 1: Comparison of Average Cost per Smart Meter

	HCHI Smart Meter Deferral Accounts	HCHI 2012 Test Year Recorded in Regular Operations	HCHI Total Costs Inclusive of 2012 Test Year	OEB Sector Market Report (March 31, 2010)	OEB Monitoring Report (March 3, 2011)
Capital Expenditures	\$ 3,795,630	\$ -	\$ 3,795,630	\$ 570,339,200	\$ 843,121,068
Total Smart Meters Installed	20,978	20,978	20,978	3,053,931	4,382,194
Capital Expenditures per Smart Meter	\$ 180.93	\$ -	\$ 180.93	\$ 186.76	\$ 192.40
Capital Expenditures plus Operating Costs	\$ 4,524,820	\$ 426,246	\$ 4,951,066	\$ 633,294,140	\$ 994,426,187
Total Smart Meters Installed	20,978	20,978	20,978	3,053,931	4,382,194
Capital Expenditures plus Operating Costs per Smart Meter	\$ 215.69	\$ 20.32	\$ 236.01	\$ 207.37	\$ 226.92

Table 9 on page 21 in the Application consisted of all Smart Meter costs recorded in the capital and operating deferral and variance accounts. Sheet 2 of the filed Smart Meter Models includes operating costs for the 2012 test year, unaudited actuals plus forecasts, recorded directly to HCHI's distribution operation accounts.

In response to Board staff IR #8, these costs for the 2012 test year have been updated to \$405,266. This results in a revised Capital Expenditures plus Operating Costs per Smart Meter equal to \$235.01.

**8. Ref: Managers Summary – Capital and Operating Expenditures – 2012
(Unaudited Actual)**

On page 41 of the Managers Summary Haldimand states \$0 for unaudited actual operating costs for smart meters. Board staff observes that the total OM&A (i.e. operating costs) stated in the Smart Meter Models total \$426,246 for 2012. Please clarify whether Haldimand has spent any money on operating costs up to the time of this Application, and whether the OM&A of \$426,246 is being spent or expected to be spent from June to December of 2012. Please explain.

Response

The Smart Meter cost information on page 41 of the Manager's Summary represents the amounts recorded directly to the Smart Meter deferral and variance accounts in 2012 for both capital and operating. In 2012, \$0 of unaudited actual operating costs for Smart Meters was recorded to deferral account "1556".

Actual operating costs have been, and continue to be, recorded as regular distribution operating expenses commencing January 1, 2012. Refer to section 21 "2012 Test Rate Year Operating Costs" at pages 45 to 48 of the Manager's Summary of the Application. On page 47, Table 10 "2012 Test Rate Year Operating Costs Unaudited Actual vs. Forecast" details the actual money spent from January 1 to May 31, 2012, and the amount expected to be spent from June 1 to December 31, 2012, totalling the \$426,246 OM&A in the filed Smart Meter Models.

HCHI has now included in the following Table 2 updated unaudited actual operating costs to July 31, 2012, with a reforecast for the remaining five months of 2012 based upon the actual revised spending to date. The updated OM&A spending for the 2012 test year is now \$405,266.

**Table 2 – 2012 Test Year Operating Costs
Unaudited Actual vs. Reforecast**

2012 Operating Costs	Unaudited Actual January to July	Forecast August to December	Total January to December
2.1 Advanced Metering Communication Device (AMCD)			
2.1.1 Maintenance			
Third Party Contractor Costs	\$ 70,670	\$ 48,665	\$ 119,335
Total Incremental AMCD OM&A Costs	\$ 70,670	\$ 48,665	\$ 119,335
2.2 Advanced Metering Regional Collector (AMRC)			
2.2.1 Maintenance			
Base Station Service Monthly Fees	\$ 49,305	\$ 59,764	\$ 109,069
Flexnet Monitoring Services	10,422	12,647	23,069
Total Incremental AMRC OM&A Costs	\$ 59,727	\$ 72,411	\$ 132,138
2.5 Other AMI OM&A Costs Related to Minimum Functionality			
2.5.2 Customer Communication			
TOU Customer Education Pieces	\$ 3,071	\$ 5,929	\$ 9,000
2.5.3 Program Management			
Util-Assist Consulting Services - NEPA group	8,307	5,736	14,043
ODS Monthly Service Fees	23,860	15,260	39,120
2.5.5 Administration Costs			
Temporary Position - Customer Service (Effective to Feb.29/12)	9,424	-	9,424
Sync Operator - New position (Effective from March 14/12)	24,610	26,690	51,300
2.5.6 Other AMI Expenses			
Security Audit - AMI Systems	-	13,000	13,000
Security Testing for RNI	-	5,000	5,000
Annual Support Fees (MDM/R & mCare)	7,416	-	7,416
Mobile Tablets / Data Packs - Monthly Fees	2,664	1,792	4,456
Total Other AMI OM&A Costs Related to Minimum Functionality	\$ 79,352	\$ 73,407	\$ 152,759
2.6 OM&A Costs Related to Beyond Minimum Functionality			
2.6.3			
Annual Support Fees (CIS Interface to MDM/R	\$ 1,034	\$ -	\$ 1,034
Total OM&A Costs Related to Beyond Minimum Functionality	\$ 1,034	\$ -	\$ 1,034
Total Smart Meter Operating Costs for the 2012 Test Year	\$ 210,783	\$ 194,483	\$ 405,266

9. Ref: Managers Summary – General Service 50 to 4999 kW

On page 44 of the Managers Summary Haldimand states \$55,184 was spent on Capital for the General Service 50 to 4999 kW customers. Staff notes the total in the Smart Meter Model for this customer class is \$55,543. Please provide a reconciliation of the costs documented in the Application to the costs on sheet 2 of the General Service 50 to 4999 kW Smart Meter Model.

Response

The following Table 3 reconciles the capital costs related to Beyond Minimum Functionality for the General Service 50 to 4,999 kW customer class as stated on page 44 of the Manager's Summary to Board Staff's calculated amount from sheet 2 of the Smart Meter Model:

**Table 3 – General Service 50 to 4,999 kW
Capital Costs Beyond Minimum Functionality**

Smart Meter Model 1. Capital Costs (Recorded in Deferral Account 1555)	HCHI Manager's Summary (Page 44)	Smart Meter Model	Difference
1.1 Advanced Metering Communication Device (AMCD)			
1.1.1 Smart Meters	\$ 55,040	\$ 50,945	\$ 4,095
Balance of 1.1 Advanced Metering Communication Device		1,486	(1,486)
1.2 Advanced Metering Regional Collector (AMRC)		2,563	(2,563)
1.5 Other AMI Capital Costs Related to Minimum Functionality		405	(405)
1.6 Capital Costs Beyond Minimum Functionality			-
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R,	\$ 144	\$ 144	-
Total Costs Beyond Minimum Functionality	\$ 55,184	\$ 55,543	\$ (359)

HCHI Manager's Summary includes all material costs up to December 31, 2011 in the amount of \$50,945 plus additional costs in the amount of \$4,095 for meters installed in 2012 and recorded to the deferral account 1555. The Board staff is referring to only those costs in the Smart Meter model up to December 31, 2011.

10. Ref: Application, page 49 – Stranded Meters

On page 49 of its Application, Haldimand states that it “continues to recover these costs by including the net book value of stranded meters in its rate base for rate-making purposes and continues to amortize these stranded meters over the remaining amortization period.” It further states that it will bring forward a proposal for recovery of stranded meters in its next cost of service rates application.

Since Haldimand rebased its rates through a cost of service application for 2010, Haldimand is next scheduled to apply for rates through a cost of service rates application for 2014.

Please provide an estimate, by customer class, of the net book value of conventional meters stranded by replacement by smart meters as of December 31, 2013.

Response

The following Table 4 provides an estimate of the net book value of the conventional meters stranded due to being replaced by Smart Meters as at December 31, 2013.

**Table 4 – Estimated Net Book Value of
Stranded Meters by Customer Class**

Customer Class	Net Book Value of Stranded Meters as at December 31, 2013
Residential	\$ 331,194
General Service Less than 50 kW	\$ 90,341
General Service 50 to 4,999 kW	\$ 17,513
Total	\$ 439,049

11. Ref: Application, pages 6 and 14 and Section 26 – Foregone Revenue Rate Rider

In its Application, Haldimand has requested approval for foregone revenue rate riders to recover six months of foregone SMIRR revenues from May 1 to October 31, 2012. It has provided calculations of these foregone revenue rate riders.

In its decisions with respect to other applications seeking approval for disposition and recovery of smart meter costs, the Board has approved an approach whereby recovery of the foregone SMIRR revenue is recovered through an adjustment to the SMDR rather than through a separate rate rider.¹

Under this approach, the adjusted SMDR is derived as follows:

	Deferred revenue requirement from 2006 to December 31, 2011	
+ _	Simple Interest on Principal of OM&A and Depreciation Expense from 2006 to December 31, 2011	
+	Foregone SMIRR Revenue (May 1, 2012 to October 31, 2012)	SMIRR rate X number of customers (in class) X 6 months
-	SMFA revenues from May 1, 2006 to April 30, 2012	
-		
=	Adjusted deferred revenue requirement to be recovered via SMDR	
	SMDR = Adjusted deferred revenue / (number of customers (in class) X recovery period (number of months))	

This calculation can be done on a class-specific basis, and should be where the SMIRR is class-specific. Board staff has attached a spreadsheet to assist in such calculation.

- a) Does Haldimand agree that this is an alternative approach for keeping the utility whole through the recovery of the foregone SMIRR revenues, and which avoids the need for separate foregone revenue rate riders?

¹ e.g. Decisions EB-2012-0086, Cambridge and North Dumfries Hydro Inc., EB-2012-0187, London Hydro Inc., both issued July 26, 2012

Response

HCHI does agree that this Board Staff approach is an alternative approach for keeping the utility whole through the recovery of the foregone SMIRR revenues.

- b) Please use the attached spreadsheet, or a variation of it, to calculate an alternative scenario where by the SMDRs will include the recovery of foregone SMIRR revenues for the period May 1 to October 31, 2012.

Response

HCHI has calculated the revised SMDRs for each customer class to now include the recovery of foregone SMIRR revenues for the period May 1 to October 31, 2012 and eliminating the need for the separate foregone revenue rate rider. HCHI has used the spreadsheet provided by Board Staff which is now included as Appendix A to these interrogatory responses.

The following Table 5 summarizes the new SMDRs calculated using the Board Staff spreadsheet and responses to Board staff IRs #8 and #12 as compared to HCHI's applied-for amounts.

Table 5 – Updated Smart Meter Disposition Rate Rider by Customer Class (includes Foregone Revenue Rate Rider)

Customer Class	Applied For SMDR	Applied For Foregone Revenue	Applied For Rate Riders (SMDR & Foregone Revenue)	Updated SMDR per Responses to Board Staff IRs
Residential	1.22	1.19	2.41	2.42
General Service Less than 50 kW	2.11	1.78	3.89	3.91
General Service 50 to 4,999 kW	(0.83)	3.28	2.45	2.49

12. Ref: Smart Meter Model. Sheets 8A, 8B, and 9

In the Smart Meter Model filed by Haldimand, the utility has relied upon sheet 8B to calculate the interest on OM&A and depreciation/amortization expenses. This is shown by Haldimand selecting cell C37 on Sheet 9. 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.

Please explain why Haldimand has used Sheet 8B rather than Sheet 8A for the determination of the SMDR.

Response

HCHI used Sheet 8B rather than Sheet 8A of the Smart Meter Models to calculate interest on OM&A and amortization expense because HCHI had, for simplicity, been recording the amortization of the entire group of Smart Meter assets at 15 years as part of the AMI system; that is, instead of breaking out the Computer Hardware and Computer Software components at their respective amortization rates. HCHI also did not start amortizing any of the assets until May 2009 in conjunction with the installation of the four TGBs, considering this month as the in-service date of the AMI system.

HCHI realizes that the amortization for each Smart Meter related asset class should have been recorded at its respective amortization rate. HCHI has now recalculated the amortization on each of these asset classes and further has input the monthly amounts using sheet 8A of the Smart Meter Models included as Appendix B, Appendix C, and Appendix D for each of the three customer classes.

13. Ref: Smart Meter Model – Cost Allocation

The design of the Smart Meter Model, Version 2.17, as issued by the Board with Guideline G-2011-0001, assumed a May 1, 2012 effective date and allowed for interest calculations on SMFA revenues and OM&A and depreciation expenses to that date.

Haldimand filed its application on July 18, 2012 and has proposed an effective date of November 1, 2012.

With the SMDR and SMIRR to be implemented later in 2012, it is appropriate that interest charges on the SMFA revenues recorded in the sub-account of Account 1555 – Smart Meter capital costs and on the OM&A and depreciation expenses recorded in sub-accounts in Account 1556 – Smart Meter Operating Expenses be taken into account in the determination of the net deferred revenue requirement to be recovered via the SMDR. It is noted that these interest charges may largely be offsetting and hence that there may be a minimal impact on the SMDRs.

Accordingly, Board staff has revised the model to allow for the interest to be calculated up to the end of any month in 2012, and for this to be factored into the calculation of the uniform SMDR. Board staff has assumed an implementation date of November 1, 2012, and hence interest should be calculated up to the end of October 2012. The model is labelled as Version 2.17Haldimand and attached to these IRs.

Haldimand should revise this model to reflect any other adjustments that it feels appropriate as result of responses to interrogatories from Board staff and VECC.

- a) If Haldimand has made revisions to its Smart Meter Model, Version 2.17 as a result of its responses to interrogatories, please update the attached Smart Meter Model V. 2.17 Haldimand for each class.

Response

In accordance with its responses to Board Staff IR # 8 and # 12, HCHI has made revisions to its Smart Meter Model for each of the three customer classes. These updated models for the Residential, General Service Less than 50 kW, and General Service 50 to 4,999 kW customer classes have been included with these interrogatory responses as Appendices B, C, and D respectively.

- b) If Haldimand has made revisions to its Smart Meter Model, Version 2.17 Haldimand as a result of its responses to interrogatories, please update its proposed class-specific SMDRs. Similarly, please update the calculation of class-specific SMIRRs.

Response

The following Table 6 summarizes the updated proposed class-specific SMDRs and class specific SMIRRs in accordance with responses to Board Staff IR #8, #11, and #12.

Table 6 – Updated Smart Meter Cost Recovery Rate Riders

Customer Class	SMDR (includes Foregone Revenue)	SMIRR	Total
Residential	2.42	3.47	5.89
General Service Less than 50 kW	3.91	5.24	9.15
General Service 50 to 4,999 kW	2.49	9.75	12.24

APPENDIX A

Adjusted Smart Meter Disposition Rider Calculation to include Foregone Revenue

1. Response to Interrogatory #11

SMDR	RESIDENTIAL CUSTOMER CLASS							
	Deferred Revenue Requirement (2006 to 2011)	\$ 1,641,939.70		Sheet 9, Cells C30 to Q30)				
	Interest on OM&A and Depreciation Expense	\$ 30,324.20		Sheet 9, Cells C32 to S32)				
	Deferred SMIRR Revenues (May 1 to Oct. 31/2012)	\$ 385,898.70		SMIRR X No. of customers X No. of months				
	Less:							
	SMFA Revenues (2006 to April 30, 2012)	\$ 1,210,674.03		Sheet 9, Cells G40 to S40				
	Interest on SMFA Revenues	\$ 39,374.07		Sheet 9, Cells G42 to S42				
	Net Deferred Revenue Requirement to be recovered	\$ 808,114.50						
	Period of be recovered over. (Years)	1.5		(recovery is over 18 months)				
	(September 1, 2012 to April 30, 2014)							
	Number of customers	18,535						
	Revised SMDR	\$ 2.42						

SMDR	GENERAL SERVICE LESS THAN 50 KW CUSTOMER CLASS							
	Deferred Revenue Requirement (2006 to 2011)	\$	247,993.89		Sheet 9, Cells C30 to Q30)			
	Interest on OM&A and Depreciation Expense	\$	4,266.97		Sheet 9, Cells C32 to S32)			
	Deferred SMIRR Revenues (May 1 to Oct. 31/2012)	\$	74,229.84		SMIRR X No. of customers X No. of months			
	Less:							
	SMFA Revenues (2006 to April 30, 2012)	\$	155,182.53		Sheet 9, Cells G40 to S40			
	Interest on SMFA Revenues	\$	5,050.44		Sheet 9, Cells G42 to S42			
	Net Deferred Revenue Requirement to be recovered	\$	166,257.73					
	Period of be recovered over. (Years)		1.5		(recovery is over 18 months)			
	(September 1, 2012 to April 30, 2014)							
	Number of customers		2,361					
	Revised SMDR	\$	3.91					

SMDR	GENERAL SERVICE 50 TO 4,999 kW CUSTOMER CLASS							
	Deferred Revenue Requirement (2006 to 2011)	\$	8,192.94		Sheet 9, Cells C30 to Q30)			
	Interest on OM&A and Depreciation Expense	\$	167.11		Sheet 9, Cells C32 to S32)			
	Deferred SMIRR Revenues (May 1 to Oct. 31/2012)	\$	4,855.50		SMIRR X No. of customers X No. of months			
	Less:							
	SMFA Revenues (2006 to April 30, 2012)	\$	9,186.03		Sheet 9, Cells G40 to S40			
	Interest on SMFA Revenues	\$	303.35		Sheet 9, Cells G42 to S42			
	Net Deferred Revenue Requirement to be recovered	\$	3,726.17					
	Period of be recovered over. (Years)		1.5		(recovery is over 18 months)			
	(September 1, 2012 to April 30, 2014)							
	Number of customers		83					
	Revised SMDR	\$	2.49					

APPENDIX B

2012 Smart Meter Model

1. Residential Customer Class



Ontario Energy Board

Smart Meter Model

Choose Your Utility:

Haldimand County Hydro Inc.

Halton Hills Hydro Inc.

Application Contact Information

Name: Jacqueline A. Scott

Title: Finance Manager

Phone Number: 905-765-5211 ext. 2237

Email Address: jscott@hchydro.ca

We are applying for rates effective: November 1, 2012

Last COS Re-based Year: 2010

Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

Copyright

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

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



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

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

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

Smart Meter Capital Cost and Operational Expense Data

Smart Meter Installation Plan

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

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast	Total
Residential				16,583	1,703	238	11	18535
General Service < 50 kW								0
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	16583	1703	238	11	18535
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	89.47%	98.66%	99.94%	100.00%	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	16583	1703	238	11	18535

1 Capital Costs

1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)

1.1.1 Smart Meters (may include new meters and modules, etc.)

1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)

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)

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

1.2.1 Collectors

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)

Asset Type	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast	Total
Smart Meter				1,342,524	280,231	41,092	889	\$ 1,664,736
Smart Meter		67,390	22,454	306,106	138,745	20,154	130	\$ 554,979
Computer Hardware				3,743	36,801	4,597		\$ 45,141
Computer Software				1,925	18,018	19,853		\$ 39,796
Total Advanced Metering Communications Devices (AMCD)	\$ -	\$ 67,390	\$ 22,454	\$ 1,654,298	\$ 473,795	\$ 85,696	\$ 1,019	\$ 2,304,652
Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
Smart Meter				499,390				\$ 499,390
Smart Meter								\$ -
Smart Meter				55,418	11,026	302		\$ 66,746
Total Advanced Metering Regional Collector (AMRC) (Includes LAN)	\$ -	\$ -	\$ -	\$ 554,808	\$ 11,026	\$ 302	\$ -	\$ 566,136

1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

1.3.1 Computer Hardware

1.3.2 Computer Software

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

Total Advanced Metering Control Computer (AMCC)

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast		
Computer Hardware								\$	-
Computer Software								\$	-
Computer Software								\$	-
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-

1.4 WIDE AREA NETWORK (WAN)

1.4.1 Activation Fees

Total Wide Area Network (WAN)

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

1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY

1.5.1 Customer Equipment (including repair of damaged equipment)

1.5.2 AMI Interface to CIS

1.5.3 Professional Fees

1.5.4 Integration

1.5.5 Program Management

1.5.6 Other AMI Capital

Total Other AMI Capital Costs Related to Minimum Functionality

Total Capital Costs Related to Minimum Functionality

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast		
								\$	-
Computer Software				2,147	3,901	522		\$	6,570
Smart Meter		12,624	13,178	22,719	15,416	9,506		\$	73,443
Computer Software					7,011	1,767		\$	8,778
								\$	-
Smart Meter					367	103		\$	470
	\$ -	\$ 12,624	\$ 13,178	\$ 24,866	\$ 26,695	\$ 11,898	\$ -	\$	89,261
	\$ -	\$ 80,014	\$ 35,632	\$ 2,233,972	\$ 511,516	\$ 97,896	\$ 1,019	\$	2,960,049

1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY

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

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

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

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

Total Capital Costs Beyond Minimum Functionality

Total Smart Meter Capital Costs

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast		
Computer Software								\$	-
Applications Software								\$	-
Smart Meter					3,765	28,163		\$	31,928
	\$ -	\$ -	\$ -	\$ -	\$ 3,765	\$ 28,163	\$ -	\$	31,928
	\$ -	\$ 80,014	\$ 35,632	\$ 2,233,972	\$ 515,281	\$ 126,059	\$ 1,019	\$	2,991,977

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.)				25,219	10,539	69,491	105,433	\$ 210,682
2.1.2 Other (please specify)								\$ -
Total Incremental AMCD OM&A Costs	\$ -	\$ -	\$ -	\$ 25,219	\$ 10,539	\$ 69,491	\$ 105,433	\$ 210,682
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)								
2.2.1 Maintenance				73,620	132,582	98,370	116,744	\$ 421,316
2.2.2 Other (please specify) Additional Insurance re: Tower Gateway Base Stations				1,340				\$ 1,340
Total Incremental AMRC OM&A Costs	\$ -	\$ -	\$ -	\$ 74,960	\$ 132,582	\$ 98,370	\$ 116,744	\$ 422,656
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)								
2.3.1 Hardware Maintenance (may include server support, etc.)								\$ -
2.3.2 Software Maintenance (may include maintenance support, etc.)								\$ -
2.3.2 Other (please specify)								\$ -
Total Incremental AMCC OM&A Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.4 WIDE AREA NETWORK (WAN)								
2.4.1 WAN Maintenance								\$ -
2.4.2 Other (please specify)								\$ -
Total Incremental AMRC OM&A Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY								
2.5.1 Business Process Redesign								\$ -
2.5.2 Customer Communication (may include project communication, etc.)				26,921		5,746	7,951	\$ 40,618
2.5.3 Program Management					16,862	33,808	46,970	\$ 97,640
2.5.4 Change Management (may include training, etc.)					2,878	902		\$ 3,780
2.5.5 Administration Costs				9,500	30,344	38,727	53,649	\$ 132,220
2.5.6 Other AMI Expenses (please specify)					10,434	14,047	26,392	\$ 50,873
Total Other AMI OM&A Costs Related to Minimum Functionality	\$ -	\$ -	\$ -	\$ 36,421	\$ 60,518	\$ 93,230	\$ 134,962	\$ 325,131
TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	\$ -	\$ -	\$ -	\$ 136,600	\$ 203,639	\$ 261,091	\$ 357,139	\$ 958,469
2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY (Please provide a descriptive title and identify nature of beyond minimum functionality costs)								
2.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06								\$ -
2.6.2 Costs for deployment of smart meters to customers other than residential and small general service								\$ -
2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.					263	42,647	913	\$ 43,823
Total OM&A Costs Beyond Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ 263	\$ 42,647	\$ 913	\$ 43,823
Total Smart Meter OM&A Costs	\$ -	\$ -	\$ -	\$ 136,600	\$ 203,902	\$ 303,738	\$ 358,052	\$ 1,002,292

3 Aggregate Smart Meter Costs by Category

3.1	Capital																		
3.1.1	Smart Meter	\$	-	\$	80,014	\$	35,632	\$	2,226,157	\$	449,550	\$	99,320	\$	1,019	\$	2,891,692		
3.1.2	Computer Hardware	\$	-	\$	-	\$	-	\$	3,743	\$	36,801	\$	4,597	\$	-	\$	45,141		
3.1.3	Computer Software	\$	-	\$	-	\$	-	\$	4,072	\$	28,930	\$	22,142	\$	-	\$	55,144		
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>\$</u>	<u>80,014</u>	<u>\$</u>	<u>35,632</u>	<u>\$</u>	<u>2,233,972</u>	<u>\$</u>	<u>515,281</u>	<u>\$</u>	<u>126,059</u>	<u>\$</u>	<u>1,019</u>	<u>\$</u>	<u>2,991,977</u>		
3.2	OM&A Costs																		
3.2.1	Total OM&A Costs	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>136,600</u>	<u>\$</u>	<u>203,902</u>	<u>\$</u>	<u>303,738</u>	<u>\$</u>	<u>358,052</u>	<u>\$</u>	<u>1,002,292</u>		



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and later
Cost of Capital							
Capital Structure¹							
Deemed Short-term Debt Capitalization					4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	56.0%	56.0%	56.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	40.0%	40.0%
Preferred Shares							
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of Capital Parameters							
Deemed Short-term Debt Rate					2.07%	2.07%	2.07%
Long-term Debt Rate (actual/embedded/deemed) ²	6.05%	6.05%	6.05%	6.05%	5.13%	5.13%	5.13%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.85%	9.85%	9.85%
Return on Preferred Shares							
WACC	7.53%	7.53%	7.43%	7.33%	6.90%	6.90%	6.90%
Working Capital Allowance							
Working Capital Allowance Rate (% of the sum of Cost of Power + controllable expenses)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Taxes/PILs							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	29.79%	28.25%	24.33%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%
Depreciation Rates (expressed as expected useful life in years)							
Smart Meters - years	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
CCA Rates							
Smart Meters - CCA Class	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	45	45	50	52	52	50	50
Computer Equipment - CCA Rate	45%	45%	55%	100%	100%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	45	45	50	52	52	50	50
Applications Software - CCA Rate	45%	45%	55%	100%	100%	55%	55%

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

Haldimand County Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and later
Net Fixed Assets - Smart Meters							
Gross Book Value							
Opening Balance		\$ -	\$ 80,014	\$ 115,646	\$ 2,341,803	\$ 2,791,353	\$ 2,890,673
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ 80,014	\$ 35,632	\$ 2,226,157	\$ 449,550	\$ 99,320	\$ 1,019
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ 80,014	\$ 115,646	\$ 2,341,803	\$ 2,791,353	\$ 2,890,673	\$ 2,891,692
Accumulated Depreciation							
Opening Balance		\$ -	\$ 2,667	\$ 9,189	\$ 91,104	\$ 262,209	\$ 451,610
Amortization expense during year	\$ -	\$ 2,667	\$ 6,522	\$ 81,915	\$ 171,105	\$ 189,401	\$ 192,746
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ 2,667	\$ 9,189	\$ 91,104	\$ 262,209	\$ 451,610	\$ 644,356
Net Book Value							
Opening Balance	\$ -	\$ -	\$ 77,347	\$ 106,457	\$ 2,250,699	\$ 2,529,144	\$ 2,439,063
Closing Balance	\$ -	\$ 77,347	\$ 106,457	\$ 2,250,699	\$ 2,529,144	\$ 2,439,063	\$ 2,247,336
Average Net Book Value	\$ -	\$ 38,673	\$ 91,902	\$ 1,178,578	\$ 2,389,921	\$ 2,484,103	\$ 2,343,200
Net Fixed Assets - Computer Hardware							
Gross Book Value							
Opening Balance		\$ -	\$ -	\$ -	\$ 3,743	\$ 40,544	\$ 45,141
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 3,743	\$ 36,801	\$ 4,597	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 3,743	\$ 40,544	\$ 45,141	\$ 45,141
Accumulated Depreciation							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 374	\$ 4,803	\$ 13,372
Amortization expense during year	\$ -	\$ -	\$ -	\$ 374	\$ 4,429	\$ 8,569	\$ 9,028
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 374	\$ 4,803	\$ 13,372	\$ 22,400
Net Book Value							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 3,369	\$ 35,741	\$ 31,770
Closing Balance	\$ -	\$ -	\$ -	\$ 3,369	\$ 35,741	\$ 31,770	\$ 22,741
Average Net Book Value	\$ -	\$ -	\$ -	\$ 1,684	\$ 19,555	\$ 33,755	\$ 27,255
Net Fixed Assets - Computer Software (including Applications Software)							
Gross Book Value							
Opening Balance		\$ -	\$ -	\$ -	\$ 4,072	\$ 33,002	\$ 55,144
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 4,072	\$ 28,930	\$ 22,142	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 4,072	\$ 33,002	\$ 55,144	\$ 55,144
Accumulated Depreciation							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 407	\$ 4,115	\$ 12,929
Amortization expense during year	\$ -	\$ -	\$ -	\$ 407	\$ 3,707	\$ 8,815	\$ 11,029
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 407	\$ 4,115	\$ 12,929	\$ 23,958
Net Book Value							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 3,665	\$ 28,887	\$ 42,215
Closing Balance	\$ -	\$ -	\$ -	\$ 3,665	\$ 28,887	\$ 42,215	\$ 31,186
Average Net Book Value	\$ -	\$ -	\$ -	\$ 1,832	\$ 16,276	\$ 35,551	\$ 36,700
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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



Ontario Energy Board
Smart Meter Model

Haldimand County Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and Later
Average Net Fixed Asset Values (from Sheet 4)							
Smart Meters	\$ -	\$ 38,673	\$ 91,902	\$ 1,178,578	\$ 2,389,921	\$ 2,484,103	\$ 2,343,200
Computer Hardware	\$ -	\$ -	\$ -	\$ 1,684	\$ 19,555	\$ 33,755	\$ 27,255
Computer Software	\$ -	\$ -	\$ -	\$ 1,832	\$ 16,276	\$ 35,551	\$ 36,700
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Net Fixed Assets	\$ -	\$ 38,673	\$ 91,902	\$ 1,182,095	\$ 2,425,752	\$ 2,553,410	\$ 2,407,155
Working Capital							
Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ -	\$ 136,600	\$ 203,902	\$ 303,738	\$ 358,052
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ -	\$ 20,490	\$ 30,585	\$ 45,561	\$ 53,708
Incremental Smart Meter Rate Base	\$ -	\$ 38,673	\$ 91,902	\$ 1,202,585	\$ 2,456,338	\$ 2,598,970	\$ 2,460,863
Return on Rate Base							
Capital Structure							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 98,254	\$ 103,959	\$ 98,435
Deemed Long Term Debt	\$ -	\$ 19,337	\$ 48,984	\$ 681,865	\$ 1,375,549	\$ 1,455,423	\$ 1,378,083
Equity	\$ -	\$ 19,337	\$ 42,918	\$ 520,719	\$ 982,535	\$ 1,039,588	\$ 984,345
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capitalization	\$ -	\$ 38,673	\$ 91,902	\$ 1,202,585	\$ 2,456,338	\$ 2,598,970	\$ 2,460,863
Return on							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 2,034	\$ 2,152	\$ 2,038
Deemed Long Term Debt	\$ -	\$ 1,170	\$ 2,964	\$ 41,253	\$ 70,566	\$ 74,663	\$ 70,696
Equity	\$ -	\$ 1,740	\$ 3,863	\$ 46,865	\$ 96,780	\$ 102,399	\$ 96,958
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Return on Capital	\$ -	\$ 2,910	\$ 6,826	\$ 88,118	\$ 169,379	\$ 179,215	\$ 169,691
Operating Expenses	\$ -	\$ -	\$ -	\$ 136,600	\$ 203,902	\$ 303,738	\$ 358,052
Amortization Expenses (from Sheet 4)							
Smart Meters	\$ -	\$ 2,667	\$ 6,522	\$ 81,915	\$ 171,105	\$ 189,401	\$ 192,746
Computer Hardware	\$ -	\$ -	\$ -	\$ 374	\$ 4,429	\$ 8,569	\$ 9,028
Computer Software	\$ -	\$ -	\$ -	\$ 407	\$ 3,707	\$ 8,815	\$ 11,029
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Amortization Expense in Year	\$ -	\$ 2,667	\$ 6,522	\$ 82,696	\$ 179,241	\$ 206,784	\$ 212,803
Incremental Revenue Requirement before Taxes/PILs	\$ -	\$ 5,577	\$ 13,348	\$ 307,414	\$ 552,523	\$ 689,737	\$ 740,546
Calculation of Taxable Income							
Incremental Operating Expenses	\$ -	\$ -	\$ -	\$ 136,600	\$ 203,902	\$ 303,738	\$ 358,052
Amortization Expense	\$ -	\$ 2,667	\$ 6,522	\$ 82,696	\$ 179,241	\$ 206,784	\$ 212,803
Interest Expense	\$ -	\$ 1,170	\$ 2,964	\$ 41,253	\$ 72,600	\$ 76,815	\$ 72,733
Net Income for Taxes/PILs	\$ -	\$ 1,740	\$ 3,863	\$ 46,865	\$ 96,780	\$ 102,399	\$ 96,958
Grossed-up Taxes/PILs (from Sheet 7)	\$ -	\$ 856.44	\$ 1,657.25	\$ 18,978.02	\$ 20,011.25	\$ 31,838.15	\$ 32,246.31
Revenue Requirement, including Grossed-up Taxes/PILs	\$ -	\$ 6,434	\$ 15,005	\$ 326,392	\$ 572,534	\$ 721,575	\$ 772,792



For PILs Calculation

UCC - Smart Meters

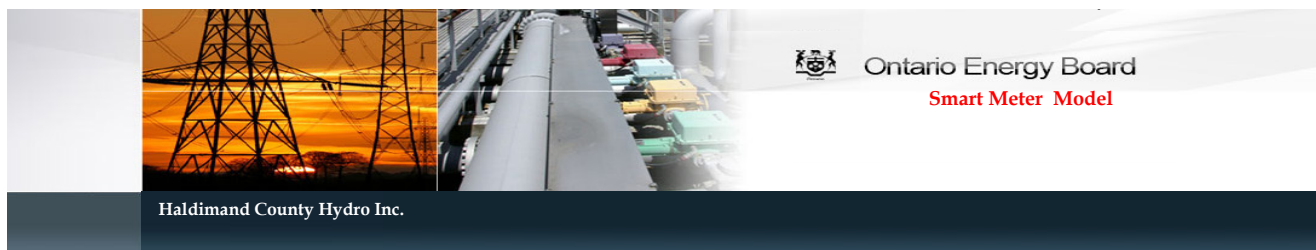
	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ 76,813.44	\$ 104,875.08	\$ 2,233,595.80	\$ 2,486,476.13	\$ 2,382,905.24
Capital Additions	\$ -	\$ 80,014.00	\$ 35,632.00	\$ 2,226,157.00	\$ 449,550.00	\$ 99,320.00	\$ 1,019.00
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	\$ -	\$ 80,014.00	\$ 112,445.44	\$ 2,331,032.08	\$ 2,683,145.80	\$ 2,585,796.13	\$ 2,383,924.24
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ 40,007.00	\$ 17,816.00	\$ 1,113,078.50	\$ 224,775.00	\$ 49,660.00	\$ 509.50
Reduced UCC	\$ -	\$ 40,007.00	\$ 94,629.44	\$ 1,217,953.58	\$ 2,458,370.80	\$ 2,536,136.13	\$ 2,383,414.74
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ 3,200.56	\$ 7,570.36	\$ 97,436.29	\$ 196,669.66	\$ 202,890.89	\$ 190,673.18
Closing UCC	\$ -	\$ 76,813.44	\$ 104,875.08	\$ 2,233,595.80	\$ 2,486,476.13	\$ 2,382,905.24	\$ 2,193,251.06

UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 3,907.50	\$ 32,865.50	\$ 34,175.25
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ 3,743.00	\$ 36,801.00	\$ 4,597.00	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ 4,072.00	\$ 28,930.00	\$ 22,142.00	\$ -
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 7,815.00	\$ 69,638.50	\$ 59,604.50	\$ 34,175.25
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 3,907.50	\$ 32,865.50	\$ 13,369.50	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 3,907.50	\$ 36,773.00	\$ 46,235.00	\$ 34,175.25
CCA Rate Class	45	45	50	52	52	50	50
CCA Rate	45%	45%	55%	100%	100%	55%	55%
CCA	\$ -	\$ -	\$ -	\$ 3,907.50	\$ 36,773.00	\$ 25,429.25	\$ 18,796.39
Closing UCC	\$ -	\$ -	\$ -	\$ 3,907.50	\$ 32,865.50	\$ 34,175.25	\$ 15,378.86

UCC - General Equipment

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



PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
INCOME TAX							
Net Income	\$ -	\$ 1,740.30	\$ 3,862.64	\$ 46,864.72	\$ 96,779.70	\$ 102,399.43	\$ 96,958.01
Amortization	\$ -	\$ 2,667.13	\$ 6,522.00	\$ 82,696.47	\$ 179,241.30	\$ 206,783.97	\$ 212,802.50
CCA - Smart Meters	\$ -	\$ 3,200.56	\$ 7,570.36	\$ 97,436.29	\$ 196,669.66	\$ 202,890.89	\$ 190,673.18
CCA - Computers	\$ -	\$ -	\$ -	\$ 3,907.50	\$ 36,773.00	\$ 25,429.25	\$ 18,796.39
CCA - Applications Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ 1,206.88	\$ 2,814.28	\$ 28,217.40	\$ 42,578.34	\$ 80,863.26	\$ 100,290.94
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	29.79%	28.25%	24.33%
Income Taxes Payable	\$ -	\$ 435.92	\$ 942.78	\$ 9,311.74	\$ 12,684.09	\$ 22,843.87	\$ 24,400.79
ONTARIO CAPITAL TAX							
Smart Meters	\$ -	\$ 77,346.87	\$ 106,456.87	\$ 2,250,698.90	\$ 2,529,143.70	\$ 2,439,062.83	\$ 2,247,336.33
Computer Hardware	\$ -	\$ -	\$ -	\$ 3,368.70	\$ 35,741.00	\$ 31,769.50	\$ 22,741.30
Computer Software	\$ -	\$ -	\$ -	\$ 3,664.80	\$ 28,887.40	\$ 42,214.80	\$ 31,186.00
(Including Application Software)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ 77,346.87	\$ 106,456.87	\$ 2,257,732.40	\$ 2,593,772.10	\$ 2,513,047.13	\$ 2,301,263.63
Less: Exemption	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ 77,346.87	\$ 106,456.87	\$ 2,257,732.40	\$ 2,593,772.10	\$ 2,513,047.13	\$ 2,301,263.63
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)	\$ -	\$ 174.03	\$ 239.53	\$ 5,079.90	\$ 1,945.33	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ 435.92	\$ 942.78	\$ 9,311.74	\$ 12,684.09	\$ 22,843.87	\$ 24,400.79
Change in OCT	\$ -	\$ 174.03	\$ 239.53	\$ 5,079.90	\$ 1,945.33	\$ -	\$ -
PILs	\$ -	\$ 609.95	\$ 1,182.31	\$ 14,391.64	\$ 14,629.42	\$ 22,843.87	\$ 24,400.79
Gross Up PILs							
Tax Rate	36.12%	36.12%	33.50%	33.00%	29.79%	28.25%	24.33%
Change in Income Taxes Payable	\$ -	\$ 682.41	\$ 1,417.72	\$ 13,898.12	\$ 18,065.93	\$ 31,838.15	\$ 32,246.31
Change in OCT	\$ -	\$ 174.03	\$ 239.53	\$ 5,079.90	\$ 1,945.33	\$ -	\$ -
PILs	\$ -	\$ 856.44	\$ 1,657.25	\$ 18,978.02	\$ 20,011.25	\$ 31,838.15	\$ 32,246.31



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	Funding Adder Revenues	Interest Rate	Interest	Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
2006 Q1			Jan-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q2	4.14%	4.68%	Feb-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q3	4.59%	5.05%	Mar-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q4	4.59%	4.72%	Apr-06	2006	Q2	\$ -		4.14%	\$ -	\$ -		
2007 Q1	4.59%	4.72%	May-06	2006	Q2	\$ -	\$ 356.72	4.14%	\$ -	\$ 356.72	\$ 32,557.92	\$ 0.26
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	\$ 356.72	\$ 4,128.28	4.14%	\$ 1.23	\$ 4,486.23	\$ 8,847.54	\$ 0.26
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	\$ 4,485.00	\$ 4,345.38	4.59%	\$ 17.16	\$ 8,847.54	\$ 14,137.74	\$ 0.26
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	\$ 8,830.38	\$ 5,273.58	4.59%	\$ 33.78	\$ 14,137.74	\$ 18,224.57	\$ 0.26
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	\$ 14,103.96	\$ 4,066.66	4.59%	\$ 53.95	\$ 18,224.57	\$ 22,909.72	\$ 0.26
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	\$ 18,170.62	\$ 4,669.60	4.59%	\$ 69.50	\$ 22,909.72	\$ 27,909.44	\$ 0.26
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	\$ 22,840.22	\$ 4,981.86	4.59%	\$ 87.36	\$ 27,909.44	\$ 32,294.94	\$ 0.26
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	\$ 27,822.08	\$ 4,366.44	4.59%	\$ 106.42	\$ 32,294.94	\$ 37,005.42	\$ 0.26
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	\$ 32,188.52	\$ 4,693.78	4.59%	\$ 123.12	\$ 37,005.42	\$ 41,708.05	\$ 0.26
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	\$ 36,882.30	\$ 4,684.68	4.59%	\$ 141.07	\$ 41,708.05	\$ 46,728.37	\$ 0.26
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	\$ 41,566.98	\$ 5,002.40	4.59%	\$ 158.99	\$ 46,728.37	\$ 51,112.39	\$ 0.26
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	\$ 46,569.38	\$ 4,364.88	4.59%	\$ 178.13	\$ 51,112.39	\$ 56,137.20	\$ 0.26
2010 Q1	0.55%	4.34%	May-07	2007	Q2	\$ 50,934.26	\$ 5,008.12	4.59%	\$ 194.82	\$ 56,137.20	\$ 60,845.72	\$ 0.26
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	\$ 55,942.38	\$ 4,689.36	4.59%	\$ 213.98	\$ 60,845.72	\$ 65,568.36	\$ 0.26
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	\$ 60,631.74	\$ 4,704.70	4.59%	\$ 231.92	\$ 65,568.36	\$ 70,572.63	\$ 0.26
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	\$ 65,336.44	\$ 4,986.28	4.59%	\$ 249.91	\$ 70,572.63	\$ 74,671.10	\$ 0.26
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	\$ 70,322.72	\$ 4,079.40	4.59%	\$ 268.98	\$ 74,671.10	\$ 79,761.17	\$ 0.26
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	\$ 74,402.12	\$ 5,040.36	5.14%	\$ 318.69	\$ 79,761.17	\$ 84,779.96	\$ 0.26
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	\$ 79,442.48	\$ 4,997.20	5.14%	\$ 340.28	\$ 84,779.96	\$ 88,888.04	\$ 0.26
2011 Q4	1.47%	4.29%	Dec-07	2007	Q4	\$ 84,439.68	\$ 4,086.68	5.14%	\$ 361.68	\$ 88,888.04	\$ 93,955.79	\$ 0.26
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ 88,526.36	\$ 5,050.24	5.14%	\$ 379.19	\$ 93,955.79	\$ 98,362.06	\$ 0.26
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	\$ 93,576.60	\$ 4,384.64	5.14%	\$ 400.82	\$ 98,362.06	\$ 102,773.54	\$ 0.26
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	\$ 97,961.24	\$ 4,392.70	5.14%	\$ 419.60	\$ 102,773.54	\$ 107,592.02	\$ 0.26
2012 Q4	0.00%	4.29%	Apr-08	2008	Q2	\$ 102,353.94	\$ 4,890.08	4.08%	\$ 348.00	\$ 107,592.02	\$ 112,325.83	\$ 0.26
			May-08	2008	Q2	\$ 107,244.02	\$ 4,717.18	4.08%	\$ 364.63	\$ 112,325.83	\$ 117,062.43	\$ 0.26
			Jun-08	2008	Q2	\$ 111,961.20	\$ 4,720.56	4.08%	\$ 380.67	\$ 117,062.43	\$ 121,895.50	\$ 0.26
			Jul-08	2008	Q3	\$ 116,681.76	\$ 4,888.00	3.35%	\$ 325.74	\$ 121,895.50	\$ 126,479.42	\$ 0.26
			Aug-08	2008	Q3	\$ 121,569.76	\$ 4,570.28	3.35%	\$ 339.38	\$ 126,479.42	\$ 131,060.90	\$ 0.26
			Sep-08	2008	Q3	\$ 126,140.04	\$ 4,568.72	3.35%	\$ 352.14	\$ 131,060.90	\$ 136,142.36	\$ 0.26
			Oct-08	2008	Q4	\$ 130,708.76	\$ 5,068.70	3.35%	\$ 364.90	\$ 136,142.36	\$ 140,730.43	\$ 0.26
			Nov-08	2008	Q4	\$ 135,777.46	\$ 4,573.92	3.35%	\$ 379.05	\$ 140,730.43	\$ 145,480.91	\$ 0.26
			Dec-08	2008	Q4	\$ 140,351.38	\$ 4,737.72	3.35%	\$ 391.81	\$ 145,480.91	\$ 150,130.32	\$ 0.26
			Jan-09	2009	Q1	\$ 145,089.10	\$ 4,745.00	2.45%	\$ 296.22	\$ 150,130.32	\$ 154,495.53	\$ 0.26
			Feb-09	2009	Q1	\$ 149,834.10	\$ 4,355.52	2.45%	\$ 305.91	\$ 154,495.53	\$ 158,801.29	\$ 0.26
			Mar-09	2009	Q1	\$ 154,189.62	\$ 4,296.87	2.45%	\$ 314.80	\$ 158,801.29	\$ 163,994.77	\$ 0.26
			Apr-09	2009	Q2	\$ 158,486.49	\$ 5,376.21	1.00%	\$ 132.07	\$ 163,994.77	\$ 169,095.29	\$ 1.00
			May-09	2009	Q2	\$ 163,862.70	\$ 5,096.04	1.00%	\$ 136.55	\$ 169,095.29	\$ 172,292.90	\$ 1.00
			Jun-09	2009	Q2	\$ 168,958.74	\$ 17,292.90	1.00%	\$ 140.80	\$ 172,292.90	\$ 186,392.44	\$ 1.00
			Jul-09	2009	Q3	\$ 186,251.64	\$ 18,969.97	0.55%	\$ 85.37	\$ 205,306.98	\$ 222,118.06	\$ 1.00
			Aug-09	2009	Q3	\$ 205,221.61	\$ 16,802.39	0.55%	\$ 94.06	\$ 222,118.06	\$ 241,224.93	\$ 1.00
			Sep-09	2009	Q3	\$ 222,024.00	\$ 19,099.17	0.55%	\$ 101.76	\$ 241,224.93	\$ 259,456.56	\$ 1.00
			Oct-09	2009	Q4	\$ 241,123.17	\$ 18,222.88	0.55%	\$ 110.51	\$ 259,456.56	\$ 277,729.62	\$ 1.00
			Nov-09	2009	Q4	\$ 259,346.05	\$ 18,264.70	0.55%	\$ 118.87	\$ 277,729.62	\$ 296,715.96	\$ 1.00
			Dec-09	2009	Q4	\$ 277,610.75	\$ 18,977.97	0.55%	\$ 127.24	\$ 296,715.96	\$ 314,401.53	\$ 1.00
			Jan-10	2010	Q1	\$ 296,588.72	\$ 17,676.87	0.55%	\$ 135.94	\$ 314,401.53	\$ 331,313.61	\$ 1.00
			Feb-10	2010	Q1	\$ 314,265.59	\$ 16,903.98	0.55%	\$ 144.04	\$ 331,313.61	\$ 351,051.20	\$ 1.00
			Mar-10	2010	Q1	\$ 331,169.57	\$ 19,729.84	0.55%	\$ 151.79	\$ 351,051.20	\$ 370,023.81	\$ 1.00
			Apr-10	2010	Q2	\$ 350,899.41	\$ 18,963.57	0.55%	\$ 160.83	\$ 370,023.81	\$ 389,128.87	\$ 1.87
			May-10	2010	Q2	\$ 369,862.98	\$ 19,096.37	0.55%	\$ 169.52	\$ 389,128.87	\$ 422,325.22	\$ 1.87
			Jun-10	2010	Q2	\$ 388,959.35	\$ 33,187.60	0.55%	\$ 178.27	\$ 422,325.22	\$ 456,842.71	\$ 1.87
			Jul-10	2010	Q3	\$ 422,146.95	\$ 34,382.67	0.89%	\$ 313.09	\$ 456,842.71	\$ 491,301.54	\$ 1.87
			Aug-10	2010	Q3	\$ 456,529.62	\$ 34,433.33	0.89%	\$ 338.59	\$ 491,301.54	\$ 525,758.44	\$ 1.87
			Sep-10	2010	Q3	\$ 490,962.95	\$ 34,431.36	0.89%	\$ 364.13	\$ 525,758.44	\$ 559,175.44	\$ 1.87
			Oct-10	2010	Q4	\$ 525,394.31	\$ 33,255.74	1.20%	\$ 525.39	\$ 559,175.44	\$ 594,865.48	\$ 1.87
			Nov-10	2010	Q4	\$ 558,650.05	\$ 35,656.78	1.20%	\$ 558.65	\$ 594,865.48	\$ 629,391.06	\$ 1.87
			Dec-10	2010	Q4	\$ 594,306.83	\$ 34,489.92	1.20%	\$ 594.31	\$ 629,391.06	\$ 662,872.49	\$ 1.87
			Jan-11	2011	Q1	\$ 628,796.75	\$ 33,305.46	1.47%	\$ 770.28	\$ 662,872.49	\$ 694,748.09	\$ 1.87
			Feb-11	2011	Q1	\$ 662,102.21	\$ 31,834.80	1.47%	\$ 811.08	\$ 694,748.09	\$ 732,001.74	\$ 1.87
			Mar-11	2011	Q1	\$ 693,937.01	\$ 37,214.66	1.47%	\$ 850.07	\$ 732,001.74	\$ 763,882.58	\$ 1.87
			Apr-11	2011	Q2	\$ 731,151.67	\$ 31,835.25	1.47%	\$ 895.66	\$ 763,882.58	\$ 798,462.28	\$ 1.87
			May-11	2011	Q2	\$ 762,986.92	\$ 34,540.70	1.47%	\$ 934.66	\$ 798,462.28	\$ 834,152.83	\$ 1.87
			Jun-11	2011	Q2	\$ 797,527.62	\$ 35,648.24	1.47%	\$ 976.97	\$ 834,152.83	\$ 867,672.01	\$ 1.87
			Jul-11	2011	Q3	\$ 833,175.86	\$ 33,475.51	1.47%	\$ 1,020.64	\$ 867,672.01	\$ 903,367.26	\$ 1.87
			Aug-11	2011	Q3	\$ 866,651.37	\$ 35,654.24	1.47%	\$ 1,061.65	\$ 903,367.26	\$ 938,005.63	\$ 1.87
			Sep-11	2011	Q3	\$ 902,305.61	\$ 34,594.70	1.47%	\$ 1,105.32	\$ 938,005.63	\$ 969,858.90	\$ 1.87
			Oct-11	2011	Q4	\$ 936,900.31	\$ 31,810.89	1.47%	\$ 1,147.70	\$ 969,858.90	\$ 1,006,307.64	\$ 1.87
			Nov-11	2011	Q4	\$ 968,711.20	\$ 36,409.77	1.47%	\$ 1,186.67	\$ 1,006,307.64	\$ 1,039,265.67	\$ 1.87
			Dec-11	2011	Q4	\$ 1,005,120.97	\$ 32,913.43	1.47%	\$ 1,231.27	\$ 1,039,265.67	\$ 1,072,980.74	\$ 1.87
			Jan-12	2012	Q1	\$ 1,038,034.40	\$ 33,674.75	1.47%	\$ 1,271.59	\$ 1,072,980.74	\$ 1,107,633.88	\$ 1.87
			Feb-12	2012	Q1	\$ 1,071,709.15	\$ 34,611.89	1.47%	\$ 1,312.84	\$ 1,107,633.88		\$ 1.87



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	\$ 1,106,321.04	\$ 34,770.81	1.47%	\$ 1,355.24	\$ 1,142,447.09		\$ 1.87
			Apr-12	2012	Q2	\$ 1,141,091.85	\$ 33,094.66	1.47%	\$ 1,397.84	\$ 1,175,584.35		\$ 1.87
			May-12	2012	Q2	\$ 1,174,186.51	\$ 32,573.44	1.47%	\$ 1,438.38	\$ 1,208,198.33		
			Jun-12	2012	Q2	\$ 1,206,759.95	\$ 3,914.08	1.47%	\$ 1,478.28	\$ 1,212,152.31		
			Jul-12	2012	Q3	\$ 1,210,674.03		1.47%	\$ 1,483.08	\$ 1,212,157.11		
			Aug-12	2012	Q3	\$ 1,210,674.03		1.47%	\$ 1,483.08	\$ 1,212,157.11		
			Sep-12	2012	Q3	\$ 1,210,674.03		1.47%	\$ 1,483.08	\$ 1,212,157.11		
			Oct-12	2012	Q4	\$ 1,210,674.03		1.47%	\$ 1,483.08	\$ 1,212,157.11		
			Nov-12	2012	Q4	\$ 1,210,674.03		0.00%	\$ -	\$ 1,210,674.03		
			Dec-12	2012	Q4	\$ 1,210,674.03			\$ -	\$ 1,210,674.03	\$ 186,826.12	
Total Funding Adder Revenues Collected							\$ 1,210,674.03		\$ 39,374.07	\$ 1,250,048.10	\$ 1,250,048.10	



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

This worksheet calculates the interest on OM&A and amortization/depreciation expense, based on monthly data.

Account 1556 - Sub-accounts Operating Expenses, Amortization Expenses, Carrying Charges

Prescribed Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	OM&A Expenses	Amortization / Depreciation Expense	Closing Balance (Principal)	(Annual) Interest Rate	Interest (on opening balance)	Cumulative Interest
2006 Q1	0.00%	0.00%	Jan-06	2006	Q1	\$ -			-	0.00%	-	-
2006 Q2	4.14%	4.68%	Feb-06	2006	Q1	-			-	0.00%	-	-
2006 Q3	4.59%	5.05%	Mar-06	2006	Q1	-			-	0.00%	-	-
2006 Q4	4.59%	4.72%	Apr-06	2006	Q2	-			-	4.14%	-	-
2007 Q1	4.59%	4.72%	May-06	2006	Q2	-			-	4.14%	-	-
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	-			-	4.14%	-	-
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	-			-	4.59%	-	-
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	-			-	4.59%	-	-
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	-			-	4.59%	-	-
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	-			-	4.59%	-	-
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	-			-	4.59%	-	-
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	-			-	4.59%	-	-
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	-		\$ 11.92	11.92	4.59%	-	-
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	11.92		\$ 11.92	23.84	4.59%	0.05	0.05
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	23.84		\$ 34.99	58.83	4.59%	0.09	0.14
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	58.83		\$ 34.99	93.82	4.59%	0.23	0.36
2010 Q1	0.55%	4.34%	May-07	2007	Q2	93.82		\$ 34.99	128.81	4.59%	0.36	0.72
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	128.81		\$ 66.84	195.65	4.59%	0.49	1.21
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	195.65		\$ 66.84	262.49	4.59%	0.75	1.96
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	262.49		\$ 159.16	421.65	4.59%	1.00	2.97
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	421.65		\$ 384.12	805.77	4.59%	1.61	4.58
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	805.77		\$ 425.74	1,231.51	5.14%	3.45	8.03
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	1,231.51		\$ 436.14	1,667.65	5.14%	5.27	13.30
2011 Q4	1.47%	4.29%	Dec-07	2007	Q4	1,667.65		\$ 444.53	2,112.18	5.14%	7.14	20.45
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	2,112.18		\$ 444.53	2,556.71	5.14%	9.05	29.50
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	2,556.71		\$ 455.69	3,012.40	5.14%	10.95	40.45
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	3,012.40		\$ 476.52	3,488.92	5.14%	12.90	53.35
2012 Q4	0.00%	4.29%	Apr-08	2008	Q2	3,488.92		\$ 512.48	4,001.40	4.08%	11.86	65.21
			May-08	2008	Q2	4,001.40		\$ 524.54	4,525.94	4.08%	13.60	78.82
			Jun-08	2008	Q2	4,525.94		\$ 582.97	5,108.91	4.08%	15.39	94.20
			Jul-08	2008	Q3	5,108.91		\$ 592.83	5,701.74	3.35%	14.26	108.47
			Aug-08	2008	Q3	5,701.74		\$ 599.60	6,301.34	3.35%	15.92	124.38
			Sep-08	2008	Q3	6,301.34		\$ 620.84	6,922.18	3.35%	17.59	141.98
			Oct-08	2008	Q4	6,922.18		\$ 622.62	7,544.80	3.35%	19.32	161.30
			Nov-08	2008	Q4	7,544.80		\$ 621.37	8,166.17	3.35%	21.06	182.36
			Dec-08	2008	Q4	8,166.17		\$ 642.49	8,808.66	3.35%	22.80	205.16
			Jan-09	2009	Q1	8,808.66		\$ 642.49	9,451.15	2.45%	17.98	223.14
			Feb-09	2009	Q1	9,451.15		\$ 659.86	10,111.01	2.45%	19.30	242.44
			Mar-09	2009	Q1	10,111.01	\$ 26,149.00	\$ 696.43	36,956.44	2.45%	20.64	263.08
			Apr-09	2009	Q2	36,956.44	\$ 1,883.00	\$ 732.82	35,806.26	1.00%	30.80	293.88
			May-09	2009	Q2	35,806.26	\$ 2,781.00	\$ 1,423.96	40,011.22	1.00%	29.84	323.72
			Jun-09	2009	Q2	40,011.22	\$ 13,414.00	\$ 3,549.06	56,974.28	1.00%	33.34	357.06
			Jul-09	2009	Q3	56,974.28	\$ 16,255.00	\$ 4,118.45	77,347.73	0.55%	26.11	383.18
			Aug-09	2009	Q3	77,347.73	\$ 13,572.00	\$ 6,125.11	97,044.84	0.55%	35.45	418.63
			Sep-09	2009	Q3	97,044.84	\$ 11,513.00	\$ 8,005.11	116,562.95	0.55%	44.48	463.11
			Oct-09	2009	Q4	116,562.95	\$ 13,116.00	\$ 10,000.64	139,679.59	0.55%	53.42	516.53
			Nov-09	2009	Q4	139,679.59	\$ 16,876.00	\$ 12,132.63	168,888.22	0.55%	64.02	580.55
			Dec-09	2009	Q4	168,888.22	\$ 24,807.00	\$ 13,140.25	206,635.47	0.55%	77.32	657.87
			Jan-10	2010	Q1	206,635.47	\$ 14,892.00	\$ 13,254.74	234,782.21	0.55%	94.71	752.57
			Feb-10	2010	Q1	234,782.21	\$ 19,375.00	\$ 13,391.73	267,548.94	0.55%	107.61	860.18
			Mar-10	2010	Q1	267,548.94	\$ 14,069.00	\$ 14,271.14	295,889.08	0.55%	122.63	982.81
			Apr-10	2010	Q2	295,889.08	\$ 24,893.00	\$ 14,590.06	335,372.14	0.55%	135.62	1,118.42
			May-10	2010	Q2	335,372.14	\$ 13,733.00	\$ 14,791.02	363,896.16	0.55%	153.71	1,272.14
			Jun-10	2010	Q2	363,896.16	\$ 12,396.00	\$ 15,103.61	391,395.77	0.55%	166.79	1,438.92
			Jul-10	2010	Q3	391,395.77	\$ 15,406.00	\$ 15,433.88	422,235.65	0.89%	290.29	1,729.21
			Aug-10	2010	Q3	422,235.65	\$ 16,763.00	\$ 15,699.70	454,698.35	0.89%	313.16	2,042.37
			Sep-10	2010	Q3	454,698.35	\$ 16,818.00	\$ 15,919.62	487,435.97	0.89%	337.23	2,379.60
			Oct-10	2010	Q4	487,435.97	\$ 15,865.00	\$ 16,462.13	519,763.10	1.20%	487.44	2,867.04
			Nov-10	2010	Q4	519,763.10	\$ 22,581.00	\$ 16,678.29	559,022.39	1.20%	519.76	3,386.80
			Dec-10	2010	Q4	559,022.39	\$ 17,114.00	\$ 16,733.23	592,869.62	1.20%	559.02	3,945.82
			Jan-11	2011	Q1	592,869.62	\$ 15,669.00	\$ 16,748.16	625,286.78	1.47%	726.27	4,672.09
			Feb-11	2011	Q1	625,286.78	\$ 18,090.00	\$ 16,765.17	660,141.95	1.47%	765.98	5,438.06
			Mar-11	2011	Q1	660,141.95	\$ 31,375.00	\$ 16,861.86	708,378.81	1.47%	808.67	6,246.74
			Apr-11	2011	Q2	708,378.81	\$ 18,538.00	\$ 16,878.09	743,794.90	1.47%	867.76	7,114.50
			May-11	2011	Q2	743,794.90	\$ 15,185.00	\$ 17,033.22	776,013.12	1.47%	911.15	8,025.65
			Jun-11	2011	Q2	776,013.12	\$ 12,931.00	\$ 17,176.86	806,120.98	1.47%	950.62	8,976.27
			Jul-11	2011	Q3	806,120.98	\$ 22,763.00	\$ 17,283.40	846,167.38	1.47%	987.50	9,963.76
			Aug-11	2011	Q3	846,167.38	\$ 35,609.00	\$ 17,356.19	899,132.57	1.47%	1,036.56	11,000.32
			Sep-11	2011	Q3	899,132.57	\$ 53,174.00	\$ 17,398.32	969,704.89	1.47%	1,101.44	12,101.76
			Oct-11	2011	Q4	969,704.89	\$ 27,490.00	\$ 17,417.07	1,014,611.96	1.47%	1,187.89	13,289.64
			Nov-11	2011	Q4	1,014,611.96	\$ 32,808.00	\$ 17,552.26	1,064,972.22	1.47%	1,242.90	14,532.54
			Dec-11	2011	Q4	1,064,972.22	\$ 20,104.00	\$ 17,730.66	1,102,806.88	1.47%	1,304.59	15,837.14
			Jan-12	2012	Q1	1,102,806.88		\$ 17,733.24	1,120,540.12	1.47%	1,350.94	17,188.07
			Feb-12	2012	Q1	1,120,540.12		\$ 17,736.33	1,138,276.45	1.47%	1,372.66	18,560.74
			Mar-12	2012	Q1	1,138,276.45		\$ 17,736.33	1,156,012.78	1.47%	1,394.39	19,955.12
			Apr-12	2012	Q2	1,156,012.78		\$ 17,736.33	1,173,749.11	1.47%	1,416.12	21,371.24
			May-12	2012	Q2	1,173,749.11		\$ 17,736.33	1,191,485.44	1.47%	1,437.84	22,809.08

Jun-12	2012	Q2	1,191,485.44		\$ 17,736.33	1,209,221.77	1.47%	1,459.57	24,268.65
Jul-12	2012	Q3	1,209,221.77		\$ 17,736.33	1,226,958.10	1.47%	1,481.30	25,749.95
Aug-12	2012	Q3	1,226,958.10		\$ 17,736.33	1,244,694.43	1.47%	1,503.02	27,252.97
Sep-12	2012	Q3	1,244,694.43		\$ 17,736.33	1,262,430.76	1.47%	1,524.75	28,777.72
Oct-12	2012	Q4	1,262,430.76		\$ 17,736.33	1,280,167.09	1.47%	1,546.48	30,324.20
Nov-12	2012	Q4	1,280,167.09			1,280,167.09	0.00%	-	30,324.20
Dec-12	2012	Q4	1,280,167.09			1,280,167.09	0.00%	-	30,324.20
			\$ 644,241.00	\$ 635,926.09	\$ 1,280,167.09				



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

This worksheet calculates the interest on OM&A and amortization/depreciation expense, in the absence of monthly data.

Year	OM&A (from Sheet 5)	Amortization Expense (from Sheet 5)	Cumulative OM&A and Amortization Expense	Average Cumulative OM&A and Amortization Expense	Average Annual Prescribed Interest Rate for Deferral and Variance Accounts (from Sheets 8A and 8B)	Simple Interest on OM&A and Amortization Expenses
2006	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ -	\$ 2,667.13	\$ 2,667.13	\$ 1,333.57	4.73%	\$ 63.04
2008	\$ -	\$ 6,522.00	\$ 9,189.13	\$ 5,928.13	3.98%	\$ 235.94
2009	\$ 136,600.00	\$ 82,696.47	\$ 228,485.60	\$ 118,637.37	1.14%	\$ 1,351.78
2010	\$ 203,902.00	\$ 179,241.30	\$ 611,628.90	\$ 420,057.25	0.60%	\$ 3,349.96
2011	\$ 303,738.00	\$ 206,783.97	\$ 1,122,150.87	\$ 866,889.88	1.47%	\$ 12,743.28
2012	\$ 358,052.00	\$ 212,802.50	\$ 1,693,005.37	\$ 1,407,578.12	1.47%	\$ 20,691.40
Cumulative Interest to 2011						\$ 17,744.00
Cumulative Interest to 2012						\$ 38,435.40



This worksheet calculates the Smart Meter Disposition Rider and the Smart Meter Incremental Revenue Requirement Rate Rider, if applicable. This worksheet also calculates any new Smart Meter Funding Adder that a distributor may wish to request. However, please note that in many 2011 IRM decisions, the Board noted that current funding adders will cease on April 30, 2011 and that the Board's expectation is that distributors will file for a final review of prudence at the earliest opportunity. The Board also noted that the SMFA is a tool designed to provide advance funding and to mitigate the anticipated rate impact of smart meter costs when recovery of those costs is approved by the Board. The Board observed that the SMFA was not intended to be compensatory (return on and of capital) on a cumulative basis over the term the SMFA was in effect. The SMFA was initially designed to fund future investment, and not fully fund prior capital investment. Distributors that seek a new SMFA should provide evidence to support its proposal. This would include documentation of where the distributor is with respect to its smart meter deployment program, and reasons as to why the distributor's circumstances are such that continuation of the SMFA is warranted. Press the "UPDATE WORKSHEET" button after choosing the applicable adders/riders.

Check if applicable

- ☐ Smart Meter Funding Adder (SMFA)
- ☒ Smart Meter Disposition Rider (SMDR)
- ☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

The SMDR is calculated based on costs to December 31, 2011

The SMIRR is calculated based on the incremental revenue requirement associated with the recovery of capital related costs to December 31, 2012 and associated OM&A.

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ 6,433.75	\$ 15,005.40	\$ 326,392.07	\$ 572,533.77	\$ 721,574.71	\$ 772,792.10	\$ 2,414,731.79
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ 20.45	\$ 184.71	\$ 452.71	\$ 3,287.96	\$ 11,891.31	\$ 14,487.07	\$ 30,324.20
<div><div><input checked="" type="checkbox"/></div>Sheet 8A (Interest calculated on monthly balances)</div>	\$ -	\$ 20.45	\$ 184.71	\$ 452.71	\$ 3,287.96	\$ 11,891.31	\$ 14,487.07	\$ 30,324.20
<div><div><input type="checkbox"/></div>Sheet 8B (Interest calculated on average annual balances)</div>								\$ -
SMFA Revenues (from Sheet 8)	\$ 32,188.52	\$ 56,337.84	\$ 56,562.74	\$ 151,499.62	\$ 332,208.03	\$ 409,237.65	\$ 172,639.63	\$ 1,210,674.03
SMFA Interest (from Sheet 8)	\$ 369.40	\$ 2,781.57	\$ 4,445.93	\$ 1,964.16	\$ 3,634.55	\$ 11,991.97	\$ 14,186.49	\$ 39,374.07
Net Deferred Revenue Requirement	-\$ 32,557.92	-\$ 52,665.21	-\$ 45,818.56	\$ 173,381.00	\$ 239,979.14	\$ 312,236.40	\$ 600,453.04	\$ 1,195,007.90
Number of Metered Customers (average for 2012 test year)							18535	
Calculation of Smart Meter Disposition Rider (per metered customer per month)								
Years for collection or refunding	1.5							
Deferred Incremental Revenue Requirement from 2006 to December 31, 2011 plus Interest on OM&A and Amortization	\$ 1,672,263.90							
SMFA Revenues collected from 2006 to 2012 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$ 1,250,048.10							
Net Deferred Revenue Requirement	\$ 422,215.80							
SMDR	\$ 1.27							
Check: Forecasted SMDR Revenues	\$ 423,710.10							
Calculation of Smart Meter Incremental Revenue Requirement Rate Rider (per metered customer per month)								
Incremental Revenue Requirement for 2012	\$ 772,792.10							
SMIRR	\$ 3.47							
Check: Forecasted SMIRR Revenues	\$ 771,797.40							

APPENDIX C

2012 Smart Meter Model

1. General Service Less than 50 kW Customer Class



Ontario Energy Board

Smart Meter Model

Choose Your Utility:

Haldimand County Hydro Inc.

Halton Hills Hydro Inc.

Application Contact Information

Name: Jacqueline A. Scott

Title: Finance Manager

Phone Number: 905-765-5211 ext. 2237

Email Address: jscott@hchydro.ca

We are applying for rates effective: November 1, 2012

Last COS Re-based Year: 2010

Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

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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.



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

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

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

Smart Meter Capital Cost and Operational Expense Data

Smart Meter Installation Plan

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

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast	Total
Residential								0
General Service < 50 kW				1,275	758	316	12	2361
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	1275	758	316	12	2361
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	54.00%	86.11%	99.49%	100.00%	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	1275	758	316	12	2361

1 Capital Costs

1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)

	Asset Type	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast	
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter				103,674	240,374	159,687	2,954	\$ 506,689
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter		8,582	2,859	29,185	60,344	37,535	484	\$ 138,989
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)	Computer Hardware				477	4,686	585		\$ 5,748
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)	Computer Software				245	2,294	2,528		\$ 5,067
Total Advanced Metering Communications Devices (AMCD)		\$ -	\$ 8,582	\$ 2,859	\$ 133,581	\$ 307,698	\$ 200,335	\$ 3,438	\$ 656,493

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

	Asset Type	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast	
1.2.1 Collectors	Smart Meter				63,590				\$ 63,590
1.2.2 Repeaters (may include radio licence, etc.)	Smart Meter								\$ -
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)	Smart Meter				7,057	1,404	38		\$ 8,499
Total Advanced Metering Regional Collector (AMRC) (Includes LAN)		\$ -	\$ -	\$ -	\$ 70,647	\$ 1,404	\$ 38	\$ -	\$ 72,089

1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

1.3.1 Computer Hardware

1.3.2 Computer Software

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

Total Advanced Metering Control Computer (AMCC)

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast		
Computer Hardware								\$	-
Computer Software								\$	-
Computer Software								\$	-
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-

1.4 WIDE AREA NETWORK (WAN)

1.4.1 Activation Fees

Total Wide Area Network (WAN)

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

1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY

1.5.1 Customer Equipment (including repair of damaged equipment)

1.5.2 AMI Interface to CIS

1.5.3 Professional Fees

1.5.4 Integration

1.5.5 Program Management

1.5.6 Other AMI Capital

Total Other AMI Capital Costs Related to Minimum Functionality

Total Capital Costs Related to Minimum Functionality

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast		
								\$	-
Computer Software				273	497	66		\$	836
Smart Meter		1,608	1,678	2,893	1,963	1,210		\$	9,352
Computer Software					893	225		\$	1,118
								\$	-
Smart Meter					47	13		\$	60
	\$ -	\$ 1,608	\$ 1,678	\$ 3,166	\$ 3,400	\$ 1,514	\$ -	\$	11,366
	\$ -	\$ 10,190	\$ 4,537	\$ 207,394	\$ 312,502	\$ 201,887	\$ 3,438	\$	739,948

1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY

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

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

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

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

Total Capital Costs Beyond Minimum Functionality

Total Smart Meter Capital Costs

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast		
Computer Software								\$	-
Applications Software								\$	-
Smart Meter					479	3,587		\$	4,066
	\$ -	\$ -	\$ -	\$ -	\$ 479	\$ 3,587	\$ -	\$	4,066
	\$ -	\$ 10,190	\$ 4,537	\$ 207,394	\$ 312,981	\$ 205,474	\$ 3,438	\$	744,014

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.)				3,211	1,342	8,849	13,425	\$ 26,827
2.1.2 Other (please specify)								\$ -
Total Incremental AMCD OM&A Costs	\$ -	\$ -	\$ -	\$ 3,211	\$ 1,342	\$ 8,849	\$ 13,425	\$ 26,827
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)								
2.2.1 Maintenance				9,374	16,882	12,526	14,866	\$ 53,648
2.2.2 Other (please specify)				171				\$ 171
Total Incremental AMRC OM&A Costs	\$ -	\$ -	\$ -	\$ 9,545	\$ 16,882	\$ 12,526	\$ 14,866	\$ 53,819
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)								
2.3.1 Hardware Maintenance (may include server support, etc.)								\$ -
2.3.2 Software Maintenance (may include maintenance support, etc.)								\$ -
2.3.2 Other (please specify)								\$ -
Total Incremental AMCC OM&A Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.4 WIDE AREA NETWORK (WAN)								
2.4.1 WAN Maintenance								\$ -
2.4.2 Other (please specify)								\$ -
Total Incremental AMRC OM&A Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY								
2.5.1 Business Process Redesign								\$ -
2.5.2 Customer Communication (may include project communication, etc.)				3,428		732	1,012	\$ 5,172
2.5.3 Program Management					2,147	4,305	5,981	\$ 12,433
2.5.4 Change Management (may include training, etc.)					366	115		\$ 481
2.5.5 Administration Costs				1,210	3,864	4,931	6,831	\$ 16,836
2.5.6 Other AMI Expenses (please specify)					1,329	1,788	3,361	\$ 6,478
Total Other AMI OM&A Costs Related to Minimum Functionality	\$ -	\$ -	\$ -	\$ 4,638	\$ 7,706	\$ 11,871	\$ 17,185	\$ 41,400
TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	\$ -	\$ -	\$ -	\$ 17,394	\$ 25,930	\$ 33,246	\$ 45,476	\$ 122,046
2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY (Please provide a descriptive title and identify nature of beyond minimum functionality costs)								
2.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06								\$ -
2.6.2 Costs for deployment of smart meters to customers other than residential and small general service								\$ -
2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.					34	5,430	116	\$ 5,580
Total OM&A Costs Beyond Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ 34	\$ 5,430	\$ 116	\$ 5,580
Total Smart Meter OM&A Costs	\$ -	\$ -	\$ -	\$ 17,394	\$ 25,964	\$ 38,676	\$ 45,592	\$ 127,626

3 Aggregate Smart Meter Costs by Category

3.1	Capital																		
3.1.1	Smart Meter	\$	-	\$	10,190	\$	4,537	\$	206,399	\$	304,611	\$	202,070	\$	3,438	\$	731,245		
3.1.2	Computer Hardware	\$	-	\$	-	\$	-	\$	477	\$	4,686	\$	585	\$	-	\$	5,748		
3.1.3	Computer Software	\$	-	\$	-	\$	-	\$	518	\$	3,684	\$	2,819	\$	-	\$	7,021		
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>\$</u>	<u>10,190</u>	<u>\$</u>	<u>4,537</u>	<u>\$</u>	<u>207,394</u>	<u>\$</u>	<u>312,981</u>	<u>\$</u>	<u>205,474</u>	<u>\$</u>	<u>3,438</u>	<u>\$</u>	<u>744,014</u>		
3.2	OM&A Costs																		
3.2.1	Total OM&A Costs	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>17,394</u>	<u>\$</u>	<u>25,964</u>	<u>\$</u>	<u>38,676</u>	<u>\$</u>	<u>45,592</u>	<u>\$</u>	<u>127,626</u>		



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and later
Cost of Capital							
Capital Structure¹							
Deemed Short-term Debt Capitalization					4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	56.0%	56.0%	56.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	40.0%	40.0%
Preferred Shares							
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of Capital Parameters							
Deemed Short-term Debt Rate					2.07%	2.07%	2.07%
Long-term Debt Rate (actual/embedded/deemed) ²	6.05%	6.05%	6.05%	6.05%	5.13%	5.13%	5.13%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.85%	9.85%	9.85%
Return on Preferred Shares							
WACC	7.53%	7.53%	7.43%	7.33%	6.90%	6.90%	6.90%
Working Capital Allowance							
Working Capital Allowance Rate (% of the sum of Cost of Power + controllable expenses)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Taxes/PILs							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	29.79%	28.25%	24.33%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%
Depreciation Rates (expressed as expected useful life in years)							
Smart Meters - years	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
CCA Rates							
Smart Meters - CCA Class	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	45	45	50	52	52	50	50
Computer Equipment - CCA Rate	45%	45%	55%	100%	100%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	45	45	50	52	52	50	50
Applications Software - CCA Rate	45%	45%	55%	100%	100%	55%	55%

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

Haldimand County Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and later
Net Fixed Assets - Smart Meters							
Gross Book Value							
Opening Balance		\$ -	\$ 10,190	\$ 14,727	\$ 221,126	\$ 525,737	\$ 727,807
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ 10,190	\$ 4,537	\$ 206,399	\$ 304,611	\$ 202,070	\$ 3,438
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ 10,190	\$ 14,727	\$ 221,126	\$ 525,737	\$ 727,807	\$ 731,245
Accumulated Depreciation							
Opening Balance		\$ -	\$ -	\$ 1,170	\$ 9,032	\$ 33,927	\$ 75,712
Amortization expense during year	\$ -	\$ 340	\$ 831	\$ 7,862	\$ 24,895	\$ 41,785	\$ 48,635
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ 340	\$ 1,170	\$ 9,032	\$ 33,927	\$ 75,712	\$ 124,347
Net Book Value							
Opening Balance	\$ -	\$ -	\$ 9,850	\$ 13,557	\$ 212,094	\$ 491,810	\$ 652,095
Closing Balance	\$ -	\$ 9,850	\$ 13,557	\$ 212,094	\$ 491,810	\$ 652,095	\$ 606,898
Average Net Book Value	\$ -	\$ 4,925	\$ 11,704	\$ 112,825	\$ 351,952	\$ 571,952	\$ 629,496
Net Fixed Assets - Computer Hardware							
Gross Book Value							
Opening Balance		\$ -	\$ -	\$ -	\$ 477	\$ 5,163	\$ 5,748
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 477	\$ 4,686	\$ 585	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 477	\$ 5,163	\$ 5,748	\$ 5,748
Accumulated Depreciation							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 48	\$ 612	\$ 1,703
Amortization expense during year	\$ -	\$ -	\$ -	\$ 48	\$ 564	\$ 1,091	\$ 1,150
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 48	\$ 612	\$ 1,703	\$ 2,852
Net Book Value							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 429	\$ 4,551	\$ 4,045
Closing Balance	\$ -	\$ -	\$ -	\$ 429	\$ 4,551	\$ 4,045	\$ 2,896
Average Net Book Value	\$ -	\$ -	\$ -	\$ 215	\$ 2,490	\$ 4,298	\$ 3,470
Net Fixed Assets - Computer Software (including Applications Software)							
Gross Book Value							
Opening Balance		\$ -	\$ -	\$ -	\$ 518	\$ 4,202	\$ 7,021
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 518	\$ 3,684	\$ 2,819	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 518	\$ 4,202	\$ 7,021	\$ 7,021
Accumulated Depreciation							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 52	\$ 524	\$ 1,646
Amortization expense during year	\$ -	\$ -	\$ -	\$ 52	\$ 472	\$ 1,122	\$ 1,404
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 52	\$ 524	\$ 1,646	\$ 3,050
Net Book Value							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 466	\$ 3,678	\$ 5,375
Closing Balance	\$ -	\$ -	\$ -	\$ 466	\$ 3,678	\$ 5,375	\$ 3,971
Average Net Book Value	\$ -	\$ -	\$ -	\$ 233	\$ 2,072	\$ 4,527	\$ 4,673
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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and Later
Average Net Fixed Asset Values (from Sheet 4)							
Smart Meters	\$ -	\$ 4,925	\$ 11,704	\$ 112,825	\$ 351,952	\$ 571,952	\$ 629,496
Computer Hardware	\$ -	\$ -	\$ -	\$ 215	\$ 2,490	\$ 4,298	\$ 3,470
Computer Software	\$ -	\$ -	\$ -	\$ 233	\$ 2,072	\$ 4,527	\$ 4,673
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Net Fixed Assets	\$ -	\$ 4,925	\$ 11,704	\$ 113,273	\$ 356,514	\$ 580,777	\$ 637,639
Working Capital							
Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ -	\$ 17,394	\$ 25,964	\$ 38,676	\$ 45,592
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ -	\$ 2,609	\$ 3,895	\$ 5,801	\$ 6,839
Incremental Smart Meter Rate Base	\$ -	\$ 4,925	\$ 11,704	\$ 115,882	\$ 360,409	\$ 586,578	\$ 644,478
Return on Rate Base							
Capital Structure							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 14,416	\$ 23,463	\$ 25,779
Deemed Long Term Debt	\$ -	\$ 2,463	\$ 6,238	\$ 65,705	\$ 201,829	\$ 328,484	\$ 360,908
Equity	\$ -	\$ 2,463	\$ 5,466	\$ 50,177	\$ 144,164	\$ 234,631	\$ 257,791
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capitalization	\$ -	\$ 4,925	\$ 11,704	\$ 115,882	\$ 360,409	\$ 586,578	\$ 644,478
Return on							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 298	\$ 486	\$ 534
Deemed Long Term Debt	\$ -	\$ 149	\$ 377	\$ 3,975	\$ 10,354	\$ 16,851	\$ 18,515
Equity	\$ -	\$ 222	\$ 492	\$ 4,516	\$ 14,200	\$ 23,111	\$ 25,392
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Return on Capital	\$ -	\$ 371	\$ 869	\$ 8,491	\$ 24,852	\$ 40,448	\$ 44,441
Operating Expenses	\$ -	\$ -	\$ -	\$ 17,394	\$ 25,964	\$ 38,676	\$ 45,592
Amortization Expenses (from Sheet 4)							
Smart Meters	\$ -	\$ 340	\$ 831	\$ 7,862	\$ 24,895	\$ 41,785	\$ 48,635
Computer Hardware	\$ -	\$ -	\$ -	\$ 48	\$ 564	\$ 1,091	\$ 1,150
Computer Software	\$ -	\$ -	\$ -	\$ 52	\$ 472	\$ 1,122	\$ 1,404
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Amortization Expense in Year	\$ -	\$ 340	\$ 831	\$ 7,961	\$ 25,931	\$ 43,998	\$ 51,189
Incremental Revenue Requirement before Taxes/PILs	\$ -	\$ 710	\$ 1,700	\$ 33,846	\$ 76,748	\$ 123,122	\$ 141,222
Calculation of Taxable Income							
Incremental Operating Expenses	\$ -	\$ -	\$ -	\$ 17,394	\$ 25,964	\$ 38,676	\$ 45,592
Amortization Expense	\$ -	\$ 340	\$ 831	\$ 7,961	\$ 25,931	\$ 43,998	\$ 51,189
Interest Expense	\$ -	\$ 149	\$ 377	\$ 3,975	\$ 10,652	\$ 17,337	\$ 19,048
Net Income for Taxes/PILs	\$ -	\$ 222	\$ 492	\$ 4,516	\$ 14,200	\$ 23,111	\$ 25,392
Grossed-up Taxes/PILs (from Sheet 7)	\$ -	\$ 109.07	\$ 211.05	\$ 1,787.07	\$ 3,103.36	\$ 6,656.75	\$ 7,318.12
Revenue Requirement, including Grossed-up Taxes/PILs	\$ -	\$ 819	\$ 1,911	\$ 35,633	\$ 79,851	\$ 129,779	\$ 148,540



For PILs Calculation

UCC - Smart Meters

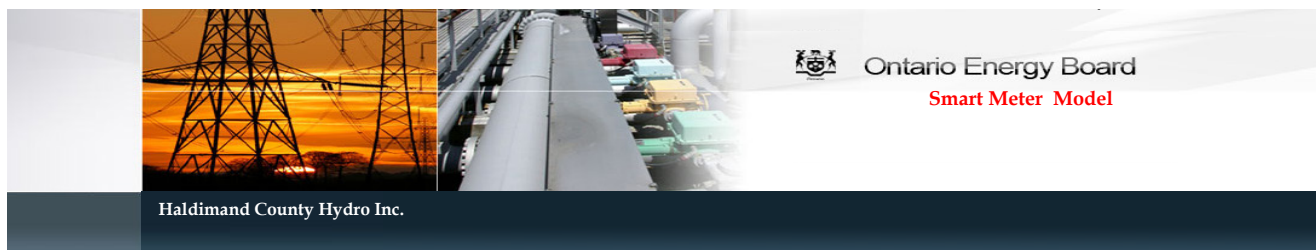
	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ 9,782.40	\$ 13,355.33	\$ 210,429.94	\$ 486,022.11	\$ 641,127.54
Capital Additions	\$ -	\$ 10,190.00	\$ 4,537.00	\$ 206,399.00	\$ 304,611.00	\$ 202,070.00	\$ 3,438.00
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	\$ -	\$ 10,190.00	\$ 14,319.40	\$ 219,754.33	\$ 515,040.94	\$ 688,092.11	\$ 644,565.54
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ 5,095.00	\$ 2,268.50	\$ 103,199.50	\$ 152,305.50	\$ 101,035.00	\$ 1,719.00
Reduced UCC	\$ -	\$ 5,095.00	\$ 12,050.90	\$ 116,554.83	\$ 362,735.44	\$ 587,057.11	\$ 642,846.54
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ 407.60	\$ 964.07	\$ 9,324.39	\$ 29,018.84	\$ 46,964.57	\$ 51,427.72
Closing UCC	\$ -	\$ 9,782.40	\$ 13,355.33	\$ 210,429.94	\$ 486,022.11	\$ 641,127.54	\$ 593,137.81

UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 497.50	\$ 4,185.00	\$ 4,351.15
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ 477.00	\$ 4,686.00	\$ 585.00	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ 518.00	\$ 3,684.00	\$ 2,819.00	\$ -
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 995.00	\$ 8,867.50	\$ 7,589.00	\$ 4,351.15
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 497.50	\$ 4,185.00	\$ 1,702.00	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 497.50	\$ 4,682.50	\$ 5,887.00	\$ 4,351.15
CCA Rate Class	45	45	50	52	52	50	50
CCA Rate	45%	45%	55%	100%	100%	55%	55%
CCA	\$ -	\$ -	\$ -	\$ 497.50	\$ 4,682.50	\$ 3,237.85	\$ 2,393.13
Closing UCC	\$ -	\$ -	\$ -	\$ 497.50	\$ 4,185.00	\$ 4,351.15	\$ 1,958.02

UCC - General Equipment

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



PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
INCOME TAX							
Net Income	\$ -	\$ 221.63	\$ 491.90	\$ 4,515.93	\$ 14,200.11	\$ 23,111.19	\$ 25,392.44
Amortization	\$ -	\$ 339.67	\$ 830.57	\$ 7,961.27	\$ 25,931.43	\$ 43,998.20	\$ 51,188.87
CCA - Smart Meters	\$ -	\$ 407.60	\$ 964.07	\$ 9,324.39	\$ 29,018.84	\$ 46,964.57	\$ 51,427.72
CCA - Computers	\$ -	\$ -	\$ -	\$ 497.50	\$ 4,682.50	\$ 3,237.85	\$ 2,393.13
CCA - Applications Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ 153.70	\$ 358.39	\$ 2,655.31	\$ 6,430.21	\$ 16,906.97	\$ 22,760.45
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	29.79%	28.25%	24.33%
Income Taxes Payable	\$ -	\$ 55.52	\$ 120.06	\$ 876.25	\$ 1,915.56	\$ 4,776.22	\$ 5,537.62
ONTARIO CAPITAL TAX							
Smart Meters	\$ -	\$ 9,850.33	\$ 13,556.77	\$ 212,094.00	\$ 491,809.57	\$ 652,094.77	\$ 606,897.70
Computer Hardware	\$ -	\$ -	\$ -	\$ 429.30	\$ 4,551.30	\$ 4,045.20	\$ 2,895.60
Computer Software (Including Application Software)	\$ -	\$ -	\$ -	\$ 466.20	\$ 3,678.20	\$ 5,374.90	\$ 3,970.70
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ 9,850.33	\$ 13,556.77	\$ 212,989.50	\$ 500,039.07	\$ 661,514.87	\$ 613,764.00
Less: Exemption	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ 9,850.33	\$ 13,556.77	\$ 212,989.50	\$ 500,039.07	\$ 661,514.87	\$ 613,764.00
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)	\$ -	\$ 22.16	\$ 30.50	\$ 479.23	\$ 375.03	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ 55.52	\$ 120.06	\$ 876.25	\$ 1,915.56	\$ 4,776.22	\$ 5,537.62
Change in OCT	\$ -	\$ 22.16	\$ 30.50	\$ 479.23	\$ 375.03	\$ -	\$ -
PILs	\$ -	\$ 77.68	\$ 150.57	\$ 1,355.48	\$ 2,290.59	\$ 4,776.22	\$ 5,537.62
Gross Up PILs							
Tax Rate	36.12%	36.12%	33.50%	33.00%	29.79%	28.25%	24.33%
Change in Income Taxes Payable	\$ -	\$ 86.91	\$ 180.54	\$ 1,307.84	\$ 2,728.33	\$ 6,656.75	\$ 7,318.12
Change in OCT	\$ -	\$ 22.16	\$ 30.50	\$ 479.23	\$ 375.03	\$ -	\$ -
PILs	\$ -	\$ 109.07	\$ 211.05	\$ 1,787.07	\$ 3,103.36	\$ 6,656.75	\$ 7,318.12



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	Funding Adder Revenues	Interest Rate	Interest	Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
2006 Q1			Jan-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q2	4.14%	4.68%	Feb-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q3	4.59%	5.05%	Mar-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q4	4.59%	4.72%	Apr-06	2006	Q2	\$ -		4.14%	\$ -	\$ -		
2007 Q1	4.59%	4.72%	May-06	2006	Q2	\$ -	\$ 83.46	4.14%	\$ -	\$ 83.46	\$ 0.26	
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	\$ 83.46	\$ 525.72	4.14%	\$ 0.29	\$ 609.47	\$ 0.26	
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	\$ 609.18	\$ 557.18	4.59%	\$ 2.33	\$ 1,168.69	\$ 0.26	
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	\$ 1,166.36	\$ 686.14	4.59%	\$ 4.46	\$ 1,856.96	\$ 0.26	
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	\$ 1,852.50	\$ 509.34	4.59%	\$ 7.09	\$ 2,368.93	\$ 0.26	
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	\$ 2,361.84	\$ 600.08	4.59%	\$ 9.03	\$ 2,970.95	\$ 0.26	
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	\$ 2,961.92	\$ 642.20	4.59%	\$ 11.33	\$ 3,615.45	\$ 0.26	
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	\$ 3,604.12	\$ 558.48	4.59%	\$ 13.79	\$ 4,176.39	\$ 0.26	
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	\$ 4,162.60	\$ 600.34	4.59%	\$ 15.92	\$ 4,778.86	\$ 0.26	
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	\$ 4,762.94	\$ 601.38	4.59%	\$ 18.22	\$ 5,382.54	\$ 0.26	
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	\$ 5,364.32	\$ 643.50	4.59%	\$ 20.52	\$ 6,028.34	\$ 0.26	
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	\$ 6,007.82	\$ 558.74	4.59%	\$ 22.98	\$ 6,589.54	\$ 0.26	
2010 Q1	0.55%	4.34%	May-07	2007	Q2	\$ 6,566.56	\$ 641.16	4.59%	\$ 25.12	\$ 7,232.84	\$ 0.26	
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	\$ 7,207.72	\$ 603.98	4.59%	\$ 27.57	\$ 7,839.27	\$ 0.26	
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	\$ 7,811.70	\$ 599.56	4.59%	\$ 29.88	\$ 8,441.14	\$ 0.26	
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	\$ 8,411.26	\$ 649.22	4.59%	\$ 32.17	\$ 9,092.65	\$ 0.26	
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	\$ 9,060.48	\$ 514.02	4.59%	\$ 34.66	\$ 9,609.16	\$ 0.26	
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	\$ 9,574.50	\$ 652.60	5.14%	\$ 41.01	\$ 10,268.11	\$ 0.26	
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	\$ 10,227.10	\$ 650.52	5.14%	\$ 43.81	\$ 10,921.43	\$ 0.26	
2011 Q4	1.47%	4.29%	Dec-07	2007	Q4	\$ 10,877.62	\$ 518.96	5.14%	\$ 46.59	\$ 11,443.17	\$ 0.26	
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ 11,396.58	\$ 653.64	5.14%	\$ 48.82	\$ 12,099.04	\$ 0.26	
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	\$ 12,050.22	\$ 565.24	5.14%	\$ 51.62	\$ 12,667.08	\$ 0.26	
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	\$ 12,615.46	\$ 514.02	5.14%	\$ 54.04	\$ 13,183.52	\$ 0.26	
2012 Q4	0.00%	4.29%	Apr-08	2008	Q2	\$ 13,129.48	\$ 648.44	4.08%	\$ 44.64	\$ 13,822.56	\$ 0.26	
			May-08	2008	Q2	\$ 13,777.92	\$ 604.76	4.08%	\$ 46.84	\$ 14,429.52	\$ 0.26	
			Jun-08	2008	Q2	\$ 14,382.68	\$ 612.82	4.08%	\$ 48.90	\$ 15,044.40	\$ 0.26	
			Jul-08	2008	Q3	\$ 14,995.50	\$ 665.60	3.35%	\$ 41.86	\$ 15,702.96	\$ 0.26	
			Aug-08	2008	Q3	\$ 15,661.10	\$ 554.58	3.35%	\$ 43.72	\$ 16,259.40	\$ 0.26	
			Sep-08	2008	Q3	\$ 16,215.68	\$ 571.22	3.35%	\$ 45.27	\$ 16,832.17	\$ 0.26	
			Oct-08	2008	Q4	\$ 16,786.90	\$ 704.08	3.35%	\$ 46.86	\$ 17,537.84	\$ 0.26	
			Nov-08	2008	Q4	\$ 17,490.98	\$ 555.62	3.35%	\$ 48.83	\$ 18,095.43	\$ 0.26	
			Dec-08	2008	Q4	\$ 18,046.60	\$ 611.52	3.35%	\$ 50.38	\$ 18,708.50	\$ 0.26	
			Jan-09	2009	Q1	\$ 18,658.12	\$ 608.40	2.45%	\$ 38.09	\$ 19,304.61	\$ 0.26	
			Feb-09	2009	Q1	\$ 19,266.52	\$ 528.84	2.45%	\$ 39.34	\$ 19,834.70	\$ 0.26	
			Mar-09	2009	Q1	\$ 19,795.36	\$ 555.56	2.45%	\$ 40.42	\$ 20,391.34	\$ 0.26	
			Apr-09	2009	Q2	\$ 20,350.92	\$ 695.94	1.00%	\$ 16.96	\$ 21,063.82	\$ 0.26	
			May-09	2009	Q2	\$ 21,046.86	\$ 580.97	1.00%	\$ 17.54	\$ 21,645.37	\$ 1.00	
			Jun-09	2009	Q2	\$ 21,627.83	\$ 2,197.58	1.00%	\$ 18.02	\$ 23,843.43	\$ 1.00	
			Jul-09	2009	Q3	\$ 23,825.41	\$ 2,516.90	0.55%	\$ 10.92	\$ 26,353.23	\$ 1.00	
			Aug-09	2009	Q3	\$ 26,342.31	\$ 2,050.09	0.55%	\$ 12.07	\$ 28,404.47	\$ 1.00	
			Sep-09	2009	Q3	\$ 28,392.40	\$ 2,513.43	0.55%	\$ 13.01	\$ 30,918.84	\$ 1.00	
			Oct-09	2009	Q4	\$ 30,905.83	\$ 2,369.65	0.55%	\$ 14.17	\$ 33,289.65	\$ 1.00	
			Nov-09	2009	Q4	\$ 33,275.48	\$ 2,369.93	0.55%	\$ 15.25	\$ 35,660.66	\$ 1.00	
			Dec-09	2009	Q4	\$ 35,645.41	\$ 2,524.17	0.55%	\$ 16.34	\$ 38,185.92	\$ 1.00	
			Jan-10	2010	Q1	\$ 38,169.58	\$ 2,210.35	0.55%	\$ 17.49	\$ 40,397.42	\$ 1.00	
			Feb-10	2010	Q1	\$ 40,379.93	\$ 2,069.66	0.55%	\$ 18.51	\$ 42,468.10	\$ 1.00	
			Mar-10	2010	Q1	\$ 42,449.59	\$ 2,652.72	0.55%	\$ 19.46	\$ 45,121.77	\$ 1.00	
			Apr-10	2010	Q2	\$ 45,102.31	\$ 2,517.41	0.55%	\$ 20.67	\$ 47,640.39	\$ 1.00	
			May-10	2010	Q2	\$ 47,619.72	\$ 2,385.46	0.55%	\$ 21.83	\$ 50,027.01	\$ 1.87	
			Jun-10	2010	Q2	\$ 50,005.18	\$ 4,292.39	0.55%	\$ 22.92	\$ 54,320.49	\$ 1.87	
			Jul-10	2010	Q3	\$ 54,297.57	\$ 4,428.59	0.89%	\$ 40.27	\$ 58,766.43	\$ 1.87	
			Aug-10	2010	Q3	\$ 58,726.16	\$ 4,431.52	0.89%	\$ 43.56	\$ 63,201.24	\$ 1.87	
			Sep-10	2010	Q3	\$ 63,157.68	\$ 4,428.83	0.89%	\$ 46.84	\$ 67,633.35	\$ 1.87	
			Oct-10	2010	Q4	\$ 67,586.51	\$ 4,140.38	1.20%	\$ 67.59	\$ 71,794.48	\$ 1.87	
			Nov-10	2010	Q4	\$ 71,726.89	\$ 4,700.62	1.20%	\$ 71.73	\$ 76,499.24	\$ 1.87	
			Dec-10	2010	Q4	\$ 76,427.51	\$ 4,413.16	1.20%	\$ 76.43	\$ 80,917.10	\$ 1.87	
			Jan-11	2011	Q1	\$ 80,840.67	\$ 4,144.55	1.47%	\$ 99.03	\$ 85,084.25	\$ 1.87	
			Feb-11	2011	Q1	\$ 84,985.22	\$ 3,848.67	1.47%	\$ 104.11	\$ 88,938.00	\$ 1.87	
			Mar-11	2011	Q1	\$ 88,833.89	\$ 4,974.31	1.47%	\$ 108.82	\$ 93,917.02	\$ 1.87	
			Apr-11	2011	Q2	\$ 93,808.20	\$ 3,846.27	1.47%	\$ 114.92	\$ 97,769.39	\$ 1.87	
			May-11	2011	Q2	\$ 97,654.47	\$ 4,393.73	1.47%	\$ 119.63	\$ 102,167.83	\$ 1.87	
			Jun-11	2011	Q2	\$ 102,048.20	\$ 4,652.24	1.47%	\$ 125.01	\$ 106,825.45	\$ 1.87	
			Jul-11	2011	Q3	\$ 106,700.44	\$ 4,139.86	1.47%	\$ 130.71	\$ 110,971.01	\$ 1.87	
			Aug-11	2011	Q3	\$ 110,840.30	\$ 4,670.45	1.47%	\$ 135.78	\$ 115,646.53	\$ 1.87	
			Sep-11	2011	Q3	\$ 115,510.75	\$ 4,407.48	1.47%	\$ 141.50	\$ 120,059.73	\$ 1.87	
			Oct-11	2011	Q4	\$ 119,918.23	\$ 4,074.93	1.47%	\$ 146.90	\$ 124,140.06	\$ 1.87	
			Nov-11	2011	Q4	\$ 123,993.16	\$ 4,537.66	1.47%	\$ 151.89	\$ 128,682.71	\$ 1.87	
			Dec-11	2011	Q4	\$ 128,530.82	\$ 4,288.82	1.47%	\$ 157.45	\$ 132,977.09	\$ 1.87	
			Jan-12	2012	Q1	\$ 132,819.64	\$ 4,326.97	1.47%	\$ 162.70	\$ 137,309.31	\$ 1.87	
			Feb-12	2012	Q1	\$ 137,146.61	\$ 4,396.74	1.47%	\$ 168.00	\$ 141,711.35	\$ 1.87	



This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP				Opening Balance	Funding Adder	Interest	Interest	Closing Balance	Annual amounts	Board Approved
			Date	Year	Quarter	(Principal)	Revenues	Rate				Smart Meter Funding Adder (from Tariff)
			Mar-12	2012	Q1	\$ 141,543.35	\$ 4,453.85	1.47%	\$ 173.39	\$ 146,170.59		\$ 1.87
			Apr-12	2012	Q2	\$ 145,997.20	\$ 4,256.99	1.47%	\$ 178.85	\$ 150,433.04		\$ 1.87
			May-12	2012	Q2	\$ 150,254.19	\$ 4,286.41	1.47%	\$ 184.06	\$ 154,724.66		
			Jun-12	2012	Q2	\$ 154,540.60	\$ 641.93	1.47%	\$ 189.31	\$ 155,371.84		
			Jul-12	2012	Q3	\$ 155,182.53		1.47%	\$ 190.10	\$ 155,372.63		
			Aug-12	2012	Q3	\$ 155,182.53		1.47%	\$ 190.10	\$ 155,372.63		
			Sep-12	2012	Q3	\$ 155,182.53		1.47%	\$ 190.10	\$ 155,372.63		
			Oct-12	2012	Q4	\$ 155,182.53		1.47%	\$ 190.10	\$ 155,372.63		
			Nov-12	2012	Q4	\$ 155,182.53		0.00%	\$ -	\$ 155,182.53		
			Dec-12	2012	Q4	\$ 155,182.53		0.00%	\$ -	\$ 155,182.53	\$ 24,179.60	
Total Funding Adder Revenues Collected						\$ 155,182.53			\$ 5,050.44	\$ 160,232.97	\$ 160,232.97	



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

This worksheet calculates the interest on OM&A and amortization/depreciation expense, based on monthly data.

Account 1556 - Sub-accounts Operating Expenses, Amortization Expenses, Carrying Charges

Prescribed Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	OM&A Expenses	Amortization / Depreciation Expense	Closing Balance (Principal)	(Annual) Interest Rate	Interest (on opening balance)	Cumulative Interest
2006 Q1	0.00%	0.00%	Jan-06	2006	Q1	\$ -			-	0.00%	-	-
2006 Q2	4.14%	4.68%	Feb-06	2006	Q1	-			-	0.00%	-	-
2006 Q3	4.59%	5.05%	Mar-06	2006	Q1	-			-	0.00%	-	-
2006 Q4	4.59%	4.72%	Apr-06	2006	Q2	-			-	4.14%	-	-
2007 Q1	4.59%	4.72%	May-06	2006	Q2	-			-	4.14%	-	-
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	-			-	4.14%	-	-
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	-			-	4.59%	-	-
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	-			-	4.59%	-	-
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	-			-	4.59%	-	-
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	-			-	4.59%	-	-
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	-			-	4.59%	-	-
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	-			-	4.59%	-	-
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	-		\$ 1.52	1.52	4.59%	-	-
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	1.52		\$ 1.52	3.04	4.59%	0.01	0.01
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	3.04		\$ 4.46	7.50	4.59%	0.01	0.02
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	7.50		\$ 4.46	11.96	4.59%	0.03	0.05
2010 Q1	0.55%	4.34%	May-07	2007	Q2	11.96		\$ 4.46	16.42	4.59%	0.05	0.09
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	16.42		\$ 8.52	24.94	4.59%	0.06	0.15
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	24.94		\$ 8.52	33.46	4.59%	0.10	0.25
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	33.46		\$ 20.28	53.74	4.59%	0.13	0.38
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	53.74		\$ 48.92	102.66	4.59%	0.21	0.58
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	102.66		\$ 54.22	156.88	5.14%	0.44	1.02
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	156.88		\$ 55.54	212.42	5.14%	0.67	1.70
2011 Q4	1.47%	4.29%	Dec-07	2007	Q4	212.42		\$ 56.61	269.03	5.14%	0.91	2.61
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	269.03		\$ 56.61	325.64	5.14%	1.15	3.76
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	325.64		\$ 58.02	383.66	5.14%	1.39	5.15
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	383.66		\$ 60.67	444.33	5.14%	1.64	6.80
2012 Q4	0.00%	4.29%	Apr-08	2008	Q2	444.33		\$ 65.25	509.58	4.08%	1.51	8.31
			May-08	2008	Q2	509.58		\$ 66.78	576.36	4.08%	1.73	10.04
			Jun-08	2008	Q2	576.36		\$ 74.22	650.58	4.08%	1.96	12.00
			Jul-08	2008	Q3	650.58		\$ 75.48	726.06	3.35%	1.82	13.81
			Aug-08	2008	Q3	726.06		\$ 76.34	802.40	3.35%	2.03	15.84
			Sep-08	2008	Q3	802.40		\$ 79.05	881.45	3.35%	2.24	18.08
			Oct-08	2008	Q4	881.45		\$ 79.28	960.73	3.35%	2.46	20.54
			Nov-08	2008	Q4	960.73		\$ 79.12	1,039.85	3.35%	2.68	23.22
			Dec-08	2008	Q4	1,039.85		\$ 81.81	1,121.66	3.35%	2.90	26.13
			Jan-09	2009	Q1	1,121.66		\$ 81.81	1,203.47	2.45%	2.29	28.42
			Feb-09	2009	Q1	1,203.47		\$ 84.02	1,287.49	2.45%	2.46	30.87
			Mar-09	2009	Q1	1,287.49	\$ 3,329.00	\$ 88.68	4,705.17	2.45%	2.63	33.50
			Apr-09	2009	Q2	4,705.17	\$ 240.00	\$ 92.71	4,557.88	1.00%	3.92	37.42
			May-09	2009	Q2	4,557.88	\$ 354.00	\$ 180.53	5,092.41	1.00%	3.80	41.22
			Jun-09	2009	Q2	5,092.41	\$ 1,707.00	\$ 452.83	7,252.24	1.00%	4.24	45.47
			Jul-09	2009	Q3	7,252.24	\$ 2,070.00	\$ 479.89	9,802.13	0.55%	3.32	48.79
			Aug-09	2009	Q3	9,802.13	\$ 1,728.00	\$ 631.11	12,161.24	0.55%	4.49	53.28
			Sep-09	2009	Q3	12,161.24	\$ 1,466.00	\$ 796.73	14,423.97	0.55%	5.57	58.86
			Oct-09	2009	Q4	14,423.97	\$ 1,670.00	\$ 939.56	17,033.53	0.55%	6.61	65.47
			Nov-09	2009	Q4	17,033.53	\$ 2,149.00	\$ 1,140.30	20,322.83	0.55%	7.81	73.27
			Dec-09	2009	Q4	20,322.83	\$ 3,161.00	\$ 1,245.05	24,728.88	0.55%	9.31	82.59
			Jan-10	2010	Q1	24,728.88	\$ 1,896.00	\$ 1,262.65	27,887.53	0.55%	11.33	93.92
			Feb-10	2010	Q1	27,887.53	\$ 2,467.00	\$ 1,297.81	31,652.34	0.55%	12.78	106.71
			Mar-10	2010	Q1	31,652.34	\$ 1,792.00	\$ 1,496.12	34,940.46	0.55%	14.51	121.21
			Apr-10	2010	Q2	34,940.46	\$ 3,169.00	\$ 1,584.24	39,693.70	0.55%	16.01	137.23
			May-10	2010	Q2	39,693.70	\$ 1,748.00	\$ 1,597.80	43,039.50	0.55%	18.19	155.42
			Jun-10	2010	Q2	43,039.50	\$ 1,578.00	\$ 1,762.66	46,380.16	0.55%	19.73	175.15
			Jul-10	2010	Q3	46,380.16	\$ 1,963.00	\$ 1,938.34	50,281.50	0.89%	34.40	209.54
			Aug-10	2010	Q3	50,281.50	\$ 2,134.00	\$ 2,006.30	54,421.80	0.89%	37.29	246.84
			Sep-10	2010	Q3	54,421.80	\$ 2,141.00	\$ 2,039.75	58,602.55	0.89%	40.36	287.20
			Oct-10	2010	Q4	58,602.55	\$ 2,021.00	\$ 2,461.28	63,084.83	1.20%	58.60	345.80
			Nov-10	2010	Q4	63,084.83	\$ 2,876.00	\$ 2,855.60	68,816.43	1.20%	63.08	408.89
			Dec-10	2010	Q4	68,816.43	\$ 2,179.00	\$ 3,076.84	74,072.27	1.20%	68.82	477.70
			Jan-11	2011	Q1	74,072.27	\$ 1,992.00	\$ 3,132.38	79,196.65	1.47%	90.74	568.44
			Feb-11	2011	Q1	79,196.65	\$ 2,303.00	\$ 3,308.24	84,807.89	1.47%	97.02	665.46
			Mar-11	2011	Q1	84,807.89	\$ 3,995.00	\$ 3,357.10	92,159.99	1.47%	103.89	769.35
			Apr-11	2011	Q2	92,159.99	\$ 2,360.00	\$ 3,377.48	97,897.47	1.47%	112.90	882.24
			May-11	2011	Q2	97,897.47	\$ 1,935.00	\$ 3,750.61	103,583.08	1.47%	119.92	1,002.17
			Jun-11	2011	Q2	103,583.08	\$ 1,646.00	\$ 4,022.76	109,251.84	1.47%	126.89	1,129.06
			Jul-11	2011	Q3	109,251.84	\$ 2,899.00	\$ 4,076.36	116,227.20	1.47%	133.83	1,262.89
			Aug-11	2011	Q3	116,227.20	\$ 4,533.00	\$ 4,131.97	124,892.17	1.47%	142.38	1,405.27
			Sep-11	2011	Q3	124,892.17	\$ 6,773.00	\$ 4,183.12	135,848.29	1.47%	152.99	1,558.26
			Oct-11	2011	Q4	135,848.29	\$ 3,501.00	\$ 4,193.36	143,542.65	1.47%	166.41	1,724.68
			Nov-11	2011	Q4	143,542.65	\$ 4,179.00	\$ 4,228.95	151,950.60	1.47%	175.84	1,900.52
			Dec-11	2011	Q4	151,950.60	\$ 2,561.00	\$ 4,256.14	158,767.74	1.47%	186.14	2,086.66
			Jan-12	2012	Q1	158,767.74		\$ 4,265.04	163,032.78	1.47%	194.49	2,281.15
			Feb-12	2012	Q1	163,032.78		\$ 4,267.61	167,300.39	1.47%	199.72	2,480.86
			Mar-12	2012	Q1	167,300.39		\$ 4,271.78	171,572.17	1.47%	204.94	2,685.80
			Apr-12	2012	Q2	171,572.17		\$ 4,271.78	175,843.95	1.47%	210.18	2,895.98
			May-12	2012	Q2	175,843.95		\$ 4,271.78	180,115.73	1.47%	215.41	3,111.39

Jun-12	2012	Q2	180,115.73		\$ 4,275.22	184,390.95	1.47%	220.64	3,332.03
Jul-12	2012	Q3	184,390.95		\$ 4,275.22	188,666.17	1.47%	225.88	3,557.91
Aug-12	2012	Q3	188,666.17		\$ 4,275.22	192,941.39	1.47%	231.12	3,789.03
Sep-12	2012	Q3	192,941.39		\$ 4,275.22	197,216.61	1.47%	236.35	4,025.38
Oct-12	2012	Q4	197,216.61		\$ 4,275.22	201,491.83	1.47%	241.59	4,266.97
Nov-12	2012	Q4	201,491.83			201,491.83	0.00%	-	4,266.97
Dec-12	2012	Q4	201,491.83			201,491.83	0.00%	-	4,266.97
			\$ 82,035.00	\$ 119,456.83	\$ 201,491.83				



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

This worksheet calculates the interest on OM&A and amortization/depreciation expense, in the absence of monthly data.

Year	OM&A (from Sheet 5)	Amortization Expense (from Sheet 5)	Cumulative OM&A and Amortization Expense	Average Cumulative OM&A and Amortization Expense	Average Annual Prescribed Interest Rate for Deferral and Variance Accounts (from Sheets 8A and 8B)	Simple Interest on OM&A and Amortization Expenses
2006	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ -	\$ 339.67	\$ 339.67	\$ 169.83	4.73%	\$ 8.03
2008	\$ -	\$ 830.57	\$ 1,170.23	\$ 754.95	3.98%	\$ 30.05
2009	\$ 17,394.00	\$ 7,961.27	\$ 26,525.50	\$ 13,847.87	1.14%	\$ 157.52
2010	\$ 25,964.00	\$ 25,931.43	\$ 78,420.93	\$ 52,473.22	0.60%	\$ 418.47
2011	\$ 38,676.00	\$ 43,998.20	\$ 161,095.13	\$ 119,758.03	1.47%	\$ 1,760.44
2012	\$ 45,592.00	\$ 51,188.87	\$ 257,876.00	\$ 209,485.57	1.47%	\$ 3,079.44
Cumulative Interest to 2011						\$ 2,374.51
Cumulative Interest to 2012						\$ 5,453.95



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

This worksheet calculates the Smart Meter Disposition Rider and the Smart Meter Incremental Revenue Requirement Rate Rider, if applicable. This worksheet also calculates any new Smart Meter Funding Adder that a distributor may wish to request. However, please note that in many 2011 IRM decisions, the Board noted that current funding adders will cease on April 30, 2011 and that the Board's expectation is that distributors will file for a final review of prudence at the earliest opportunity. The Board also noted that the SMFA is a tool designed to provide advance funding and to mitigate the anticipated rate impact of smart meter costs when recovery of those costs is approved by the Board. The Board observed that the SMFA was not intended to be compensatory (return on and of capital) on a cumulative basis over the term the SMFA was in effect. The SMFA was initially designed to fund future investment, and not fully fund prior capital investment. Distributors that seek a new SMFA should provide evidence to support its proposal. This would include documentation of where the distributor is with respect to its smart meter deployment program, and reasons as to why the distributor's circumstances are such that continuation of the SMFA is warranted. Press the "UPDATE WORKSHEET" button after choosing the applicable adders/riders.

Check if applicable

- ☐ Smart Meter Funding Adder (SMFA)
☒ Smart Meter Disposition Rider (SMDR)
☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

The SMDR is calculated based on costs to December 31, 2011

The SMIRR is calculated based on the incremental revenue requirement associated with the recovery of capital related costs to December 31, 2012 and associated OM&A.

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ 819.36	\$ 1,910.91	\$ 35,633.43	\$ 79,851.15	\$ 129,779.05	\$ 148,539.62	\$ 396,533.52
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ 2.61	\$ 23.52	\$ 56.46	\$ 395.11	\$ 1,608.95	\$ 2,180.31	\$ 4,266.97
<input checked="" type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)	\$ -	\$ 2.61	\$ 23.52	\$ 56.46	\$ 395.11	\$ 1,608.95	\$ 2,180.31	\$ 4,266.97
<input type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)								\$ -
SMFA Revenues (from Sheet 8)	\$ 4,162.60	\$ 7,233.98	\$ 7,261.54	\$ 19,511.46	\$ 42,671.09	\$ 51,978.97	\$ 22,362.89	\$ 155,182.53
SMFA Interest (from Sheet 8)	\$ 48.32	\$ 358.45	\$ 571.78	\$ 252.13	\$ 467.30	\$ 1,535.75	\$ 1,816.71	\$ 5,050.44
Net Deferred Revenue Requirement	-\$ 4,210.92	-\$ 6,770.47	-\$ 5,898.88	\$ 15,926.30	\$ 37,107.87	\$ 77,873.28	\$ 126,540.34	\$ 240,567.52
Number of Metered Customers (average for 2012 test year)							2361	

Calculation of Smart Meter Disposition Rider (per metered customer per month)

Years for collection or refunding	1.5	
Deferred Incremental Revenue Requirement from 2006 to December 31, 2011 plus Interest on OM&A and Amortization	\$ 252,260.86	
SMFA Revenues collected from 2006 to 2012 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$ 160,232.97	
Net Deferred Revenue Requirement	\$ 92,027.89	
SMDR	November 1, 2012 to April 30, 2014	\$ 2.17
Check: Forecasted SMDR Revenues	\$ 92,220.66	Match

Calculation of Smart Meter Incremental Revenue Requirement Rate Rider (per metered customer per month)

Incremental Revenue Requirement for 2012	\$ 148,539.62	
SMIRR	\$ 5.24	
Check: Forecasted SMIRR Revenues	\$ 148,459.68	Match

APPENDIX D

2012 Smart Meter Model

1. General Service 50 to 4,999 kW Customer Class



Ontario Energy Board

Smart Meter Model

Choose Your Utility:

Haldimand County Hydro Inc.

Halton Hills Hydro Inc.

Application Contact Information

Name: Jacqueline A. Scott

Title: Finance Manager

Phone Number: 905-765-5211 ext. 2237

Email Address: jscott@hchydro.ca

We are applying for rates effective: November 1, 2012

Last COS Re-based Year 2010

Legend

DROP-DOWN MENU

INPUT FIELD

CALCULATION FIELD

Copyright

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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.

Haldimand County Hydro Inc.

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

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

Smart Meter Capital Cost and Operational Expense Data

Smart Meter Installation Plan

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

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast	Total
Residential								0
General Service < 50 kW								0
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	0	0	0	0	0
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Actual/Planned number of GS > 50 kW meters installed						76	6	82
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	0	0	0	76	6	82

1 Capital Costs

1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)

	Asset Type	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast	
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter						50,945	4,095	\$ 55,040
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter		306	101	490	172	32		\$ 1,101
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)	Computer Hardware				17	167	21		\$ 205
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)	Computer Software				9	81	90		\$ 180
Total Advanced Metering Communications Devices (AMCD)		\$ -	\$ 306	\$ 101	\$ 516	\$ 420	\$ 51,088	\$ 4,095	\$ 56,526

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

	Asset Type	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast	
1.2.1 Collectors	Smart Meter				2,261				\$ 2,261
1.2.2 Repeaters (may include radio licence, etc.)	Smart Meter								\$ -
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)	Smart Meter				251	50	1		\$ 302
Total Advanced Metering Regional Collector (AMRC) (Includes LAN)		\$ -	\$ -	\$ -	\$ 2,512	\$ 50	\$ 1	\$ -	\$ 2,563

1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

1.3.1 Computer Hardware

1.3.2 Computer Software

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

Total Advanced Metering Control Computer (AMCC)

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast		
Computer Hardware								\$	-
Computer Software								\$	-
Computer Software								\$	-
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-

1.4 WIDE AREA NETWORK (WAN)

1.4.1 Activation Fees

Total Wide Area Network (WAN)

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

1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY

1.5.1 Customer Equipment (including repair of damaged equipment)

1.5.2 AMI Interface to CIS

1.5.3 Professional Fees

1.5.4 Integration

1.5.5 Program Management

1.5.6 Other AMI Capital

Total Other AMI Capital Costs Related to Minimum Functionality

Total Capital Costs Related to Minimum Functionality

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast		
								\$	-
Computer Software				10	18	2		\$	30
Smart Meter		57	60	103	70	43		\$	333
Computer Software					32	8		\$	40
								\$	-
Smart Meter					2	0		\$	2
	\$ -	\$ 57	\$ 60	\$ 113	\$ 122	\$ 53	\$ -	\$	405
	\$ -	\$ 363	\$ 161	\$ 3,141	\$ 592	\$ 51,142	\$ 4,095	\$	59,494

1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY

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

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

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

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

Total Capital Costs Beyond Minimum Functionality

Total Smart Meter Capital Costs

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast		
Computer Software								\$	-
Applications Software								\$	-
Smart Meter					17	127		\$	144
	\$ -	\$ -	\$ -	\$ -	\$ 17	\$ 127	\$ -	\$	144
	\$ -	\$ 363	\$ 161	\$ 3,141	\$ 609	\$ 51,269	\$ 4,095	\$	59,638

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.)				114	48	315	477	\$ 954
2.1.2 Other (please specify)								\$ -
Total Incremental AMCD OM&A Costs	\$ -	\$ -	\$ -	\$ 114	\$ 48	\$ 315	\$ 477	\$ 954
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)								
2.2.1 Maintenance				333	601	445	529	\$ 1,908
2.2.2 Other (please specify)				6				\$ 6
Total Incremental AMRC OM&A Costs	\$ -	\$ -	\$ -	\$ 339	\$ 601	\$ 445	\$ 529	\$ 1,914
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)								
2.3.1 Hardware Maintenance (may include server support, etc.)								\$ -
2.3.2 Software Maintenance (may include maintenance support, etc.)								\$ -
2.3.2 Other (please specify)								\$ -
Total Incremental AMCC OM&A Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.4 WIDE AREA NETWORK (WAN)								
2.4.1 WAN Maintenance								\$ -
2.4.2 Other (please specify)								\$ -
Total Incremental AMRC OM&A Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY								
2.5.1 Business Process Redesign								\$ -
2.5.2 Customer Communication (may include project communication, etc.)				122		26	36	\$ 184
2.5.3 Program Management					76	154	213	\$ 443
2.5.4 Change Management (may include training, etc.)					13	4		\$ 17
2.5.5 Administration Costs				43	137	176	243	\$ 599
2.5.6 Other AMI Expenses (please specify)					47	63	119	\$ 229
Total Other AMI OM&A Costs Related to Minimum Functionality	\$ -	\$ -	\$ -	\$ 165	\$ 273	\$ 423	\$ 611	\$ 1,472
TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	\$ -	\$ -	\$ -	\$ 618	\$ 922	\$ 1,183	\$ 1,617	\$ 4,340
2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY (Please provide a descriptive title and identify nature of beyond minimum functionality costs)	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual		
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.					1	192	4	\$ 197
Total OM&A Costs Beyond Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ 1	\$ 192	\$ 4	\$ 197
Total Smart Meter OM&A Costs	\$ -	\$ -	\$ -	\$ 618	\$ 923	\$ 1,375	\$ 1,621	\$ 4,537

3 Aggregate Smart Meter Costs by Category

3.1	Capital																		
3.1.1	Smart Meter	\$	-	\$	363	\$	161	\$	3,105	\$	311	\$	51,148	\$	4,095	\$	59,183		
3.1.2	Computer Hardware	\$	-	\$	-	\$	-	\$	17	\$	167	\$	21	\$	-	\$	205		
3.1.3	Computer Software	\$	-	\$	-	\$	-	\$	19	\$	131	\$	100	\$	-	\$	250		
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>\$</u>	<u>363</u>	<u>\$</u>	<u>161</u>	<u>\$</u>	<u>3,141</u>	<u>\$</u>	<u>609</u>	<u>\$</u>	<u>51,269</u>	<u>\$</u>	<u>4,095</u>	<u>\$</u>	<u>59,638</u>		
3.2	OM&A Costs																		
3.2.1	Total OM&A Costs	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>618</u>	<u>\$</u>	<u>923</u>	<u>\$</u>	<u>1,375</u>	<u>\$</u>	<u>1,621</u>	<u>\$</u>	<u>4,537</u>		



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and later
Cost of Capital							
Capital Structure¹							
Deemed Short-term Debt Capitalization					4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	56.0%	56.0%	56.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	40.0%	40.0%
Preferred Shares							
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of Capital Parameters							
Deemed Short-term Debt Rate					2.07%	2.07%	2.07%
Long-term Debt Rate (actual/embedded/deemed) ²	6.05%	6.05%	6.05%	6.05%	5.13%	5.13%	5.13%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.85%	9.85%	9.85%
Return on Preferred Shares							
WACC	7.53%	7.53%	7.43%	7.33%	6.90%	6.90%	6.90%
Working Capital Allowance							
Working Capital Allowance Rate (% of the sum of Cost of Power + controllable expenses)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Taxes/PILs							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	29.79%	28.25%	24.33%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%
Depreciation Rates (expressed as expected useful life in years)							
Smart Meters - years	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Tools & Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
CCA Rates							
Smart Meters - CCA Class	47	47	47	47	47	47	47
Smart Meters - CCA Rate	8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class	45	45	50	52	52	50	50
Computer Equipment - CCA Rate	45%	45%	55%	100%	100%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	45	45	50	52	52	50	50
Applications Software - CCA Rate	45%	45%	55%	100%	100%	55%	55%

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

Haldimand County Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and later
Net Fixed Assets - Smart Meters							
Gross Book Value							
Opening Balance		\$ -	\$ 363	\$ 524	\$ 3,629	\$ 3,940	\$ 55,088
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ 363	\$ 161	\$ 3,105	\$ 311	\$ 51,148	\$ 4,095
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ 363	\$ 524	\$ 3,629	\$ 3,940	\$ 55,088	\$ 59,183
Accumulated Depreciation							
Opening Balance		\$ -	\$ 12	\$ 42	\$ 180	\$ 432	\$ 2,400
Amortization expense during year	\$ -	\$ 12	\$ 30	\$ 138	\$ 252	\$ 1,968	\$ 3,809
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ 12	\$ 42	\$ 180	\$ 432	\$ 2,400	\$ 6,209
Net Book Value							
Opening Balance	\$ -	\$ -	\$ 351	\$ 482	\$ 3,449	\$ 3,508	\$ 52,688
Closing Balance	\$ -	\$ 351	\$ 482	\$ 3,449	\$ 3,508	\$ 52,688	\$ 52,974
Average Net Book Value	\$ -	\$ 175	\$ 417	\$ 1,966	\$ 3,478	\$ 28,098	\$ 52,831
Net Fixed Assets - Computer Hardware							
Gross Book Value							
Opening Balance		\$ -	\$ -	\$ -	\$ 17	\$ 184	\$ 205
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 17	\$ 167	\$ 21	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 17	\$ 184	\$ 205	\$ 205
Accumulated Depreciation							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 2	\$ 22	\$ 61
Amortization expense during year	\$ -	\$ -	\$ -	\$ 2	\$ 20	\$ 39	\$ 41
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 2	\$ 22	\$ 61	\$ 102
Net Book Value							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 15	\$ 162	\$ 144
Closing Balance	\$ -	\$ -	\$ -	\$ 15	\$ 162	\$ 144	\$ 103
Average Net Book Value	\$ -	\$ -	\$ -	\$ 8	\$ 89	\$ 153	\$ 124
Net Fixed Assets - Computer Software (including Applications Software)							
Gross Book Value							
Opening Balance		\$ -	\$ -	\$ -	\$ 19	\$ 150	\$ 250
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 19	\$ 131	\$ 100	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 19	\$ 150	\$ 250	\$ 250
Accumulated Depreciation							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 2	\$ 19	\$ 59
Amortization expense during year	\$ -	\$ -	\$ -	\$ 2	\$ 17	\$ 40	\$ 50
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 2	\$ 19	\$ 59	\$ 109
Net Book Value							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 17	\$ 131	\$ 191
Closing Balance	\$ -	\$ -	\$ -	\$ 17	\$ 131	\$ 191	\$ 141
Average Net Book Value	\$ -	\$ -	\$ -	\$ 9	\$ 74	\$ 161	\$ 166
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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

	2006	2007	2008	2009	2010	2011	2012 and Later
Average Net Fixed Asset Values (from Sheet 4)							
Smart Meters	\$ -	\$ 175	\$ 417	\$ 1,966	\$ 3,478	\$ 28,098	\$ 52,831
Computer Hardware	\$ -	\$ -	\$ -	\$ 8	\$ 89	\$ 153	\$ 124
Computer Software	\$ -	\$ -	\$ -	\$ 9	\$ 74	\$ 161	\$ 166
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Net Fixed Assets	\$ -	\$ 175	\$ 417	\$ 1,982	\$ 3,641	\$ 28,412	\$ 53,121
Working Capital							
Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ -	\$ 618	\$ 923	\$ 1,375	\$ 1,621
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ -	\$ 93	\$ 138	\$ 206	\$ 243
Incremental Smart Meter Rate Base	\$ -	\$ 175	\$ 417	\$ 2,075	\$ 3,780	\$ 28,619	\$ 53,364
Return on Rate Base							
Capital Structure							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 151	\$ 1,145	\$ 2,135
Deemed Long Term Debt	\$ -	\$ 88	\$ 222	\$ 1,176	\$ 2,117	\$ 16,026	\$ 29,884
Equity	\$ -	\$ 88	\$ 195	\$ 898	\$ 1,512	\$ 11,447	\$ 21,346
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capitalization	\$ -	\$ 175	\$ 417	\$ 2,075	\$ 3,780	\$ 28,619	\$ 53,364
Return on							
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 3	\$ 24	\$ 44
Deemed Long Term Debt	\$ -	\$ 5	\$ 13	\$ 71	\$ 109	\$ 822	\$ 1,533
Equity	\$ -	\$ 8	\$ 18	\$ 81	\$ 149	\$ 1,128	\$ 2,103
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Return on Capital	\$ -	\$ 13	\$ 31	\$ 152	\$ 261	\$ 1,973	\$ 3,680
Operating Expenses	\$ -	\$ -	\$ -	\$ 618	\$ 923	\$ 1,375	\$ 1,621
Amortization Expenses (from Sheet 4)							
Smart Meters	\$ -	\$ 12	\$ 30	\$ 138	\$ 252	\$ 1,968	\$ 3,809
Computer Hardware	\$ -	\$ -	\$ -	\$ 2	\$ 20	\$ 39	\$ 41
Computer Software	\$ -	\$ -	\$ -	\$ 2	\$ 17	\$ 40	\$ 50
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Amortization Expense in Year	\$ -	\$ 12	\$ 30	\$ 142	\$ 289	\$ 2,047	\$ 3,900
Incremental Revenue Requirement before Taxes/PILs	\$ -	\$ 25	\$ 61	\$ 912	\$ 1,473	\$ 5,395	\$ 9,201
Calculation of Taxable Income							
Incremental Operating Expenses	\$ -	\$ -	\$ -	\$ 618	\$ 923	\$ 1,375	\$ 1,621
Amortization Expense	\$ -	\$ 12	\$ 30	\$ 142	\$ 289	\$ 2,047	\$ 3,900
Interest Expense	\$ -	\$ 5	\$ 13	\$ 71	\$ 112	\$ 846	\$ 1,577
Net Income for Taxes/PILs	\$ -	\$ 8	\$ 18	\$ 81	\$ 149	\$ 1,128	\$ 2,103
Grossed-up Taxes/PILs (from Sheet 7)	\$ -	\$ 3.89	\$ 7.51	\$ 28.85	\$ 3.37	\$ 290.37	\$ 505.47
Revenue Requirement, including Grossed-up Taxes/PILs	\$ -	\$ 29	\$ 68	\$ 941	\$ 1,470	\$ 5,685	\$ 9,706



For PILs Calculation

UCC - Smart Meters

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ 348.48	\$ 475.16	\$ 3,417.95	\$ 3,443.07	\$ 52,269.71
Capital Additions	\$ -	\$ 363.00	\$ 161.00	\$ 3,105.00	\$ 311.00	\$ 51,148.00	\$ 4,095.00
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ 363.00	\$ 509.48	\$ 3,580.16	\$ 3,728.95	\$ 54,591.07	\$ 56,364.71
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ 181.50	\$ 80.50	\$ 1,552.50	\$ 155.50	\$ 25,574.00	\$ 2,047.50
Reduced UCC	\$ -	\$ 181.50	\$ 428.98	\$ 2,027.66	\$ 3,573.45	\$ 29,017.07	\$ 54,317.21
CCA Rate Class	47	47	47	47	47	47	47
CCA Rate	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ 14.52	\$ 34.32	\$ 162.21	\$ 285.88	\$ 2,321.37	\$ 4,345.38
Closing UCC	\$ -	\$ 348.48	\$ 475.16	\$ 3,417.95	\$ 3,443.07	\$ 52,269.71	\$ 52,019.33

UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 18.00	\$ 149.00	\$ 154.78
Capital Additions Computer Hardware	\$ -	\$ -	\$ -	\$ 17.00	\$ 167.00	\$ 21.00	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ 19.00	\$ 131.00	\$ 100.00	\$ -
Retirements/Removals (if applicable)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 36.00	\$ 316.00	\$ 270.00	\$ 154.78
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ -	\$ 18.00	\$ 149.00	\$ 60.50	\$ -
Reduced UCC	\$ -	\$ -	\$ -	\$ 18.00	\$ 167.00	\$ 209.50	\$ 154.78
CCA Rate Class	45	45	50	52	52	50	50
CCA Rate	45%	45%	55%	100%	100%	55%	55%
CCA	\$ -	\$ -	\$ -	\$ 18.00	\$ 167.00	\$ 115.23	\$ 85.13
Closing UCC	\$ -	\$ -	\$ -	\$ 18.00	\$ 149.00	\$ 154.78	\$ 69.65

UCC - General Equipment

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



PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast
INCOME TAX							
Net Income	\$ -	\$ 7.90	\$ 17.51	\$ 80.84	\$ 148.92	\$ 1,127.57	\$ 2,102.55
Amortization	\$ -	\$ 12.10	\$ 29.57	\$ 142.03	\$ 289.30	\$ 2,046.50	\$ 3,900.03
CCA - Smart Meters	\$ -	\$ 14.52	\$ 34.32	\$ 162.21	\$ 285.88	\$ 2,321.37	\$ 4,345.38
CCA - Computers	\$ -	\$ -	\$ -	\$ 18.00	\$ 167.00	\$ 115.23	\$ 85.13
CCA - Applications Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ 5.48	\$ 12.76	\$ 42.66	\$ 14.66	\$ 737.48	\$ 1,572.08
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	29.79%	28.25%	24.33%
Income Taxes Payable	\$ -	\$ 1.98	\$ 4.27	\$ 14.08	\$ 4.37	\$ 208.34	\$ 382.49
ONTARIO CAPITAL TAX							
Smart Meters	\$ -	\$ 350.90	\$ 482.33	\$ 3,448.90	\$ 3,507.60	\$ 52,688.00	\$ 52,973.97
Computer Hardware	\$ -	\$ -	\$ -	\$ 15.30	\$ 162.20	\$ 144.30	\$ 103.30
Computer Software	\$ -	\$ -	\$ -	\$ 17.10	\$ 131.20	\$ 191.20	\$ 141.20
(Including Application Software)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ 350.90	\$ 482.33	\$ 3,481.30	\$ 3,801.00	\$ 53,023.50	\$ 53,218.47
Less: Exemption	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ 350.90	\$ 482.33	\$ 3,481.30	\$ 3,801.00	\$ 53,023.50	\$ 53,218.47
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)	\$ -	\$ 0.79	\$ 1.09	\$ 7.83	\$ 2.85	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ 1.98	\$ 4.27	\$ 14.08	\$ 4.37	\$ 208.34	\$ 382.49
Change in OCT	\$ -	\$ 0.79	\$ 1.09	\$ 7.83	\$ 2.85	\$ -	\$ -
PILs	\$ -	\$ 2.77	\$ 5.36	\$ 21.91	\$ 1.52	\$ 208.34	\$ 382.49
Gross Up PILs							
Tax Rate	36.12%	36.12%	33.50%	33.00%	29.79%	28.25%	24.33%
Change in Income Taxes Payable	\$ -	\$ 3.10	\$ 6.43	\$ 21.01	\$ 6.22	\$ 290.37	\$ 505.47
Change in OCT	\$ -	\$ 0.79	\$ 1.09	\$ 7.83	\$ 2.85	\$ -	\$ -
PILs	\$ -	\$ 3.89	\$ 7.51	\$ 28.85	\$ 3.37	\$ 290.37	\$ 505.47



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	Funding Adder Revenues	Interest Rate	Interest	Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
2006 Q1			Jan-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q2	4.14%	4.68%	Feb-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q3	4.59%	5.05%	Mar-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q4	4.59%	4.72%	Apr-06	2006	Q2	\$ -		4.14%	\$ -	\$ -		
2007 Q1	4.59%	4.72%	May-06	2006	Q2	\$ -	\$ 3.12	4.14%	\$ -	\$ 3.12		\$ 0.26
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	\$ 3.12	\$ 35.10	4.14%	\$ 0.01	\$ 38.23		\$ 0.26
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	\$ 38.22	\$ 36.14	4.59%	\$ 0.15	\$ 74.51		\$ 0.26
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	\$ 74.36	\$ 42.90	4.59%	\$ 0.28	\$ 117.54		\$ 0.26
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	\$ 117.26	\$ 34.84	4.59%	\$ 0.45	\$ 152.55		\$ 0.26
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	\$ 152.10	\$ 38.48	4.59%	\$ 0.58	\$ 191.16		\$ 0.26
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	\$ 190.58	\$ 40.04	4.59%	\$ 0.73	\$ 231.35		\$ 0.26
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	\$ 230.62	\$ 35.88	4.59%	\$ 0.88	\$ 267.38	\$ 269.58	\$ 0.26
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	\$ 266.50	\$ 38.48	4.59%	\$ 1.02	\$ 306.00		\$ 0.26
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	\$ 304.98	\$ 39.26	4.59%	\$ 1.17	\$ 345.41		\$ 0.26
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	\$ 344.24	\$ 41.86	4.59%	\$ 1.32	\$ 387.42		\$ 0.26
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	\$ 386.10	\$ 36.14	4.59%	\$ 1.48	\$ 423.72		\$ 0.26
2010 Q1	0.55%	4.34%	May-07	2007	Q2	\$ 422.24	\$ 41.60	4.59%	\$ 1.62	\$ 465.46		\$ 0.26
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	\$ 463.84	\$ 39.26	4.59%	\$ 1.77	\$ 504.87		\$ 0.26
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	\$ 503.10	\$ 39.26	4.59%	\$ 1.92	\$ 544.28		\$ 0.26
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	\$ 542.36	\$ 40.04	4.59%	\$ 2.07	\$ 584.47		\$ 0.26
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	\$ 582.40	\$ 34.32	4.59%	\$ 2.23	\$ 618.95		\$ 0.26
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	\$ 616.72	\$ 38.74	5.14%	\$ 2.64	\$ 658.10		\$ 0.26
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	\$ 655.46	\$ 35.10	5.14%	\$ 2.81	\$ 693.37		\$ 0.26
2011 Q4	1.47%	4.29%	Dec-07	2007	Q4	\$ 690.56	\$ 33.02	5.14%	\$ 2.96	\$ 726.54	\$ 480.09	\$ 0.26
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ 723.58	\$ 36.66	5.14%	\$ 3.10	\$ 763.34		\$ 0.26
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	\$ 760.24	\$ 33.54	5.14%	\$ 3.26	\$ 797.04		\$ 0.26
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	\$ 793.78	\$ 33.28	5.14%	\$ 3.40	\$ 830.46		\$ 0.26
2012 Q4	0.00%	4.29%	Apr-08	2008	Q2	\$ 827.06	\$ 36.14	4.08%	\$ 2.81	\$ 866.01		\$ 0.26
			May-08	2008	Q2	\$ 863.20	\$ 35.36	4.08%	\$ 2.93	\$ 901.49		\$ 0.26
			Jun-08	2008	Q2	\$ 898.56	\$ 35.10	4.08%	\$ 3.06	\$ 936.72		\$ 0.26
			Jul-08	2008	Q3	\$ 933.66	\$ 36.66	3.35%	\$ 2.61	\$ 972.93		\$ 0.26
			Aug-08	2008	Q3	\$ 970.32	\$ 30.94	3.35%	\$ 2.71	\$ 1,003.97		\$ 0.26
			Sep-08	2008	Q3	\$ 1,001.26	\$ 35.36	3.35%	\$ 2.80	\$ 1,039.42		\$ 0.26
			Oct-08	2008	Q4	\$ 1,036.62	\$ 37.44	3.35%	\$ 2.89	\$ 1,076.95		\$ 0.26
			Nov-08	2008	Q4	\$ 1,074.06	\$ 35.88	3.35%	\$ 3.00	\$ 1,112.94		\$ 0.26
			Dec-08	2008	Q4	\$ 1,109.94	\$ 37.18	3.35%	\$ 3.10	\$ 1,150.22	\$ 459.21	\$ 0.26
			Jan-09	2009	Q1	\$ 1,147.12	\$ 35.36	2.45%	\$ 2.34	\$ 1,184.82		\$ 0.26
			Feb-09	2009	Q1	\$ 1,182.48	\$ 33.80	2.45%	\$ 2.41	\$ 1,218.69		\$ 0.26
			Mar-09	2009	Q1	\$ 1,216.28	\$ 32.39	2.45%	\$ 2.48	\$ 1,251.15		\$ 0.26
			Apr-09	2009	Q2	\$ 1,248.67	\$ 38.32	1.00%	\$ 1.04	\$ 1,288.03		\$ 0.26
			May-09	2009	Q2	\$ 1,286.99	\$ 35.34	1.00%	\$ 1.07	\$ 1,323.40		\$ 1.00
			Jun-09	2009	Q2	\$ 1,322.33	\$ 133.93	1.00%	\$ 1.10	\$ 1,457.36		\$ 1.00
			Jul-09	2009	Q3	\$ 1,456.26	\$ 120.22	0.55%	\$ 0.67	\$ 1,577.15		\$ 1.00
			Aug-09	2009	Q3	\$ 1,576.48	\$ 153.17	0.55%	\$ 0.72	\$ 1,730.37		\$ 1.00
			Sep-09	2009	Q3	\$ 1,729.65	\$ 138.87	0.55%	\$ 0.79	\$ 1,869.31		\$ 1.00
			Oct-09	2009	Q4	\$ 1,868.52	\$ 139.00	0.55%	\$ 0.86	\$ 2,008.38		\$ 1.00
			Nov-09	2009	Q4	\$ 2,007.52	\$ 137.00	0.55%	\$ 0.92	\$ 2,145.44		\$ 1.00
			Dec-09	2009	Q4	\$ 2,144.52	\$ 139.00	0.55%	\$ 0.98	\$ 2,284.50	\$ 1,151.78	\$ 1.00
			Jan-10	2010	Q1	\$ 2,283.52	\$ 136.10	0.55%	\$ 1.05	\$ 2,420.67		\$ 1.00
			Feb-10	2010	Q1	\$ 2,419.62	\$ 127.16	0.55%	\$ 1.11	\$ 2,547.89		\$ 1.00
			Mar-10	2010	Q1	\$ 2,546.78	\$ 146.14	0.55%	\$ 1.17	\$ 2,694.09		\$ 1.00
			Apr-10	2010	Q2	\$ 2,692.92	\$ 137.90	0.55%	\$ 1.23	\$ 2,832.05		\$ 1.00
			May-10	2010	Q2	\$ 2,830.82	\$ 142.61	0.55%	\$ 1.30	\$ 2,974.73		\$ 1.87
			Jun-10	2010	Q2	\$ 2,973.43	\$ 246.45	0.55%	\$ 1.36	\$ 3,221.24		\$ 1.87
			Jul-10	2010	Q3	\$ 3,219.88	\$ 258.46	0.89%	\$ 2.39	\$ 3,480.73		\$ 1.87
			Aug-10	2010	Q3	\$ 3,478.34	\$ 254.06	0.89%	\$ 2.58	\$ 3,734.98		\$ 1.87
			Sep-10	2010	Q3	\$ 3,732.40	\$ 255.57	0.89%	\$ 2.77	\$ 3,990.74		\$ 1.87
			Oct-10	2010	Q4	\$ 3,987.97	\$ 256.07	1.20%	\$ 3.99	\$ 4,248.03		\$ 1.87
			Nov-10	2010	Q4	\$ 4,244.04	\$ 259.24	1.20%	\$ 4.24	\$ 4,507.52		\$ 1.87
			Dec-10	2010	Q4	\$ 4,503.28	\$ 254.20	1.20%	\$ 4.50	\$ 4,761.98	\$ 2,501.65	\$ 1.87
			Jan-11	2011	Q1	\$ 4,757.48	\$ 256.06	1.47%	\$ 5.83	\$ 5,019.37		\$ 1.87
			Feb-11	2011	Q1	\$ 5,013.54	\$ 241.08	1.47%	\$ 6.14	\$ 5,260.76		\$ 1.87
			Mar-11	2011	Q1	\$ 5,254.62	\$ 273.64	1.47%	\$ 6.44	\$ 5,534.70		\$ 1.87
			Apr-11	2011	Q2	\$ 5,528.26	\$ 245.66	1.47%	\$ 6.77	\$ 5,780.69		\$ 1.87
			May-11	2011	Q2	\$ 5,773.92	\$ 264.91	1.47%	\$ 7.07	\$ 6,045.90		\$ 1.87
			Jun-11	2011	Q2	\$ 6,038.83	\$ 277.01	1.47%	\$ 7.40	\$ 6,323.24		\$ 1.87
			Jul-11	2011	Q3	\$ 6,315.84	\$ 247.46	1.47%	\$ 7.74	\$ 6,571.04		\$ 1.87
			Aug-11	2011	Q3	\$ 6,563.30	\$ 276.82	1.47%	\$ 8.04	\$ 6,848.16		\$ 1.87
			Sep-11	2011	Q3	\$ 6,840.12	\$ 263.67	1.47%	\$ 8.38	\$ 7,112.17		\$ 1.87
			Oct-11	2011	Q4	\$ 7,103.79	\$ 247.15	1.47%	\$ 8.70	\$ 7,359.64		\$ 1.87
			Nov-11	2011	Q4	\$ 7,350.94	\$ 273.39	1.47%	\$ 9.00	\$ 7,633.33		\$ 1.87
			Dec-11	2011	Q4	\$ 7,624.33	\$ 254.51	1.47%	\$ 9.34	\$ 7,888.18	\$ 3,212.21	\$ 1.87
			Jan-12	2012	Q1	\$ 7,878.84	\$ 256.01	1.47%	\$ 9.65	\$ 8,144.50		\$ 1.87
			Feb-12	2012	Q1	\$ 8,134.85	\$ 258.87	1.47%	\$ 9.97	\$ 8,403.69		\$ 1.87



This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP				Opening Balance	Funding Adder	Interest				Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
			Date	Year	Quarter	(Principal)	Revenues	Rate	Interest					
			Mar-12	2012	Q1	\$ 8,393.72	\$ 267.47	1.47%	\$ 10.28			\$ 8,671.47		\$ 1.87
			Apr-12	2012	Q2	\$ 8,661.19	\$ 257.81	1.47%	\$ 10.61			\$ 8,929.61		\$ 1.87
			May-12	2012	Q2	\$ 8,919.00	\$ 247.09	1.47%	\$ 10.93			\$ 9,177.02		
			Jun-12	2012	Q2	\$ 9,166.09	\$ 19.94	1.47%	\$ 11.23			\$ 9,197.26		
			Jul-12	2012	Q3	\$ 9,186.03		1.47%	\$ 11.25			\$ 9,197.28		
			Aug-12	2012	Q3	\$ 9,186.03		1.47%	\$ 11.25			\$ 9,197.28		
			Sep-12	2012	Q3	\$ 9,186.03		1.47%	\$ 11.25			\$ 9,197.28		
			Oct-12	2012	Q4	\$ 9,186.03		1.47%	\$ 11.25			\$ 9,197.28		
			Nov-12	2012	Q4	\$ 9,186.03		0.00%	\$ -			\$ 9,186.03		
			Dec-12	2012	Q4	\$ 9,186.03		0.00%	\$ -			\$ 9,186.03	\$ 1,414.86	
Total Funding Adder Revenues Collected						\$ 9,186.03			\$ 303.35			\$ 9,489.38	\$ 9,489.38	



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

This worksheet calculates the interest on OM&A and amortization/depreciation expense, based on monthly data.

Account 1556 - Sub-accounts Operating Expenses, Amortization Expenses, Carrying Charges

Prescribed Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	OM&A Expenses	Amortization / Depreciation Expense	Closing Balance (Principal)	(Annual) Interest Rate	Interest (on opening balance)	Cumulative Interest
2006 Q1	0.00%	0.00%	Jan-06	2006	Q1	\$ -			-	0.00%	-	-
2006 Q2	4.14%	4.68%	Feb-06	2006	Q1	-			-	0.00%	-	-
2006 Q3	4.59%	5.05%	Mar-06	2006	Q1	-			-	0.00%	-	-
2006 Q4	4.59%	4.72%	Apr-06	2006	Q2	-			-	4.14%	-	-
2007 Q1	4.59%	4.72%	May-06	2006	Q2	-			-	4.14%	-	-
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	-			-	4.14%	-	-
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	-			-	4.59%	-	-
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	-			-	4.59%	-	-
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	-			-	4.59%	-	-
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	-			-	4.59%	-	-
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	-			-	4.59%	-	-
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	-			-	4.59%	-	-
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	-		\$ 0.06	0.06	4.59%	-	-
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	0.06		\$ 0.06	0.12	4.59%	0.00	0.00
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	0.12		\$ 0.17	0.29	4.59%	0.00	0.00
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	0.29		\$ 0.17	0.46	4.59%	0.00	0.00
2010 Q1	0.55%	4.34%	May-07	2007	Q2	0.46		\$ 0.17	0.63	4.59%	0.00	0.00
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	0.63		\$ 0.31	0.94	4.59%	0.00	0.01
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	0.94		\$ 0.31	1.25	4.59%	0.00	0.01
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	1.25		\$ 0.73	1.98	4.59%	0.00	0.01
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	1.98		\$ 1.75	3.73	4.59%	0.01	0.02
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	3.73		\$ 1.94	5.67	5.14%	0.02	0.04
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	5.67		\$ 1.98	7.65	5.14%	0.02	0.06
2011 Q4	1.47%	4.29%	Dec-07	2007	Q4	7.65		\$ 2.02	9.67	5.14%	0.03	0.09
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	9.67		\$ 2.02	11.69	5.14%	0.04	0.14
2012 Q2	1.47%	4.29%	Feb-08	2008	Q1	11.69		\$ 2.07	13.76	5.14%	0.05	0.19
2012 Q3	1.47%	4.29%	Mar-08	2008	Q1	13.76		\$ 2.16	15.92	5.14%	0.06	0.25
2012 Q4	0.00%	4.29%	Apr-08	2008	Q2	15.92		\$ 2.32	18.24	4.08%	0.05	0.30
			May-08	2008	Q2	18.24		\$ 2.38	20.62	4.08%	0.06	0.36
			Jun-08	2008	Q2	20.62		\$ 2.64	23.26	4.08%	0.07	0.43
			Jul-08	2008	Q3	23.26		\$ 2.68	25.94	3.35%	0.06	0.50
			Aug-08	2008	Q3	25.94		\$ 2.71	28.65	3.35%	0.07	0.57
			Sep-08	2008	Q3	28.65		\$ 2.81	31.46	3.35%	0.08	0.65
			Oct-08	2008	Q4	31.46		\$ 2.82	34.28	3.35%	0.09	0.74
			Nov-08	2008	Q4	34.28		\$ 2.81	37.09	3.35%	0.10	0.83
			Dec-08	2008	Q4	37.09		\$ 2.90	39.99	3.35%	0.10	0.94
			Jan-09	2009	Q1	39.99		\$ 2.91	42.90	2.45%	0.08	1.02
			Feb-09	2009	Q1	42.90		\$ 2.99	45.89	2.45%	0.09	1.11
			Mar-09	2009	Q1	45.89	\$ 118.00	\$ 3.16	167.05	2.45%	0.09	1.20
			Apr-09	2009	Q2	167.05	\$ 9.00	\$ 3.29	161.34	1.00%	0.14	1.34
			May-09	2009	Q2	161.34	\$ 14.00	\$ 6.41	181.75	1.00%	0.13	1.47
			Jun-09	2009	Q2	181.75	\$ 61.00	\$ 15.96	258.71	1.00%	0.15	1.62
			Jul-09	2009	Q3	258.71	\$ 73.00	\$ 16.50	348.21	0.55%	0.12	1.74
			Aug-09	2009	Q3	348.21	\$ 61.00	\$ 18.86	428.07	0.55%	0.16	1.90
			Sep-09	2009	Q3	428.07	\$ 52.00	\$ 19.36	499.43	0.55%	0.20	2.10
			Oct-09	2009	Q4	499.43	\$ 60.00	\$ 19.88	579.31	0.55%	0.23	2.33
			Nov-09	2009	Q4	579.31	\$ 76.00	\$ 20.30	675.61	0.55%	0.27	2.59
			Dec-09	2009	Q4	675.61	\$ 112.00	\$ 20.78	808.39	0.55%	0.31	2.90
			Jan-10	2010	Q1	808.39	\$ 67.00	\$ 20.89	896.28	0.55%	0.37	3.27
			Feb-10	2010	Q1	896.28	\$ 87.00	\$ 21.04	1,004.32	0.55%	0.41	3.68
			Mar-10	2010	Q1	1,004.32	\$ 64.00	\$ 21.71	1,090.03	0.55%	0.46	4.14
			Apr-10	2010	Q2	1,090.03	\$ 113.00	\$ 22.51	1,225.54	0.55%	0.50	4.64
			May-10	2010	Q2	1,225.54	\$ 61.00	\$ 22.74	1,309.28	0.55%	0.56	5.21
			Jun-10	2010	Q2	1,309.28	\$ 56.00	\$ 22.93	1,388.21	0.55%	0.60	5.81
			Jul-10	2010	Q3	1,388.21	\$ 69.00	\$ 23.31	1,480.52	0.89%	1.03	6.84
			Aug-10	2010	Q3	1,480.52	\$ 77.00	\$ 24.12	1,581.64	0.89%	1.10	7.93
			Sep-10	2010	Q3	1,581.64	\$ 76.00	\$ 24.26	1,681.90	0.89%	1.17	9.11
			Oct-10	2010	Q4	1,681.90	\$ 72.00	\$ 26.40	1,780.30	1.20%	1.68	10.79
			Nov-10	2010	Q4	1,780.30	\$ 104.00	\$ 27.29	1,911.59	1.20%	1.78	12.57
			Dec-10	2010	Q4	1,911.59	\$ 77.00	\$ 27.47	2,016.06	1.20%	1.91	14.48
			Jan-11	2011	Q1	2,016.06	\$ 71.00	\$ 27.49	2,114.55	1.47%	2.47	16.95
			Feb-11	2011	Q1	2,114.55	\$ 81.00	\$ 27.55	2,223.10	1.47%	2.59	19.54
			Mar-11	2011	Q1	2,223.10	\$ 142.00	\$ 277.30	2,642.40	1.47%	2.72	22.26
			Apr-11	2011	Q2	2,642.40	\$ 83.00	\$ 303.90	3,029.30	1.47%	3.24	25.50
			May-11	2011	Q2	3,029.30	\$ 70.00	\$ 304.01	3,403.31	1.47%	3.71	29.21
			Jun-11	2011	Q2	3,403.31	\$ 59.00	\$ 307.62	3,769.93	1.47%	4.17	33.38
			Jul-11	2011	Q3	3,769.93	\$ 103.00	\$ 308.05	4,180.98	1.47%	4.62	38.00
			Aug-11	2011	Q3	4,180.98	\$ 160.00	\$ 308.33	4,649.31	1.47%	5.12	43.12
			Sep-11	2011	Q3	4,649.31	\$ 242.00	\$ 308.46	5,199.77	1.47%	5.70	48.82
			Oct-11	2011	Q4	5,199.77	\$ 123.00	\$ 308.49	5,631.26	1.47%	6.37	55.19
			Nov-11	2011	Q4	5,631.26	\$ 150.00	\$ 309.00	6,090.26	1.47%	6.90	62.08
			Dec-11	2011	Q4	6,090.26	\$ 91.00	\$ 313.57	6,494.83	1.47%	7.46	69.54
			Jan-12	2012	Q1	6,494.83		\$ 313.57	6,808.40	1.47%	7.96	77.50
			Feb-12	2012	Q1	6,808.40		\$ 317.34	7,125.74	1.47%	8.34	85.84
			Mar-12	2012	Q1	7,125.74		\$ 324.92	7,450.66	1.47%	8.73	94.57
			Apr-12	2012	Q2	7,450.66		\$ 336.30	7,786.96	1.47%	9.13	103.70
			May-12	2012	Q2	7,786.96		\$ 336.30	8,123.26	1.47%	9.54	113.24

Jun-12	2012	Q2	8,123.26		\$ 336.30	8,459.56	1.47%	9.95	123.19
Jul-12	2012	Q3	8,459.56		\$ 336.30	8,795.86	1.47%	10.36	133.55
Aug-12	2012	Q3	8,795.86		\$ 336.30	9,132.16	1.47%	10.77	144.32
Sep-12	2012	Q3	9,132.16		\$ 336.30	9,468.46	1.47%	11.19	155.51
Oct-12	2012	Q4	9,468.46		\$ 336.30	9,804.76	1.47%	11.60	167.11
Nov-12	2012	Q4	9,804.76			9,804.76	0.00%	-	167.11
Dec-12	2012	Q4	9,804.76			9,804.76	0.00%	-	167.11
			\$ 2,916.00	\$ 6,888.76	\$ 9,804.76				



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

This worksheet calculates the interest on OM&A and amortization/depreciation expense, in the absence of monthly data.

Year	OM&A (from Sheet 5)	Amortization Expense (from Sheet 5)	Cumulative OM&A and Amortization Expense	Average Cumulative OM&A and Amortization Expense	Average Annual Prescribed Interest Rate for Deferral and Variance Accounts (from Sheets 8A and 8B)	Simple Interest on OM&A and Amortization Expenses
2006	\$ -	\$ -	\$ -	\$ -	4.37%	\$ -
2007	\$ -	\$ 12.10	\$ 12.10	\$ 6.05	4.73%	\$ 0.29
2008	\$ -	\$ 29.57	\$ 41.67	\$ 26.88	3.98%	\$ 1.07
2009	\$ 618.00	\$ 142.03	\$ 801.70	\$ 421.68	1.14%	\$ 4.80
2010	\$ 923.00	\$ 289.30	\$ 2,014.00	\$ 1,407.85	0.80%	\$ 11.23
2011	\$ 1,375.00	\$ 2,046.50	\$ 5,435.50	\$ 3,724.75	1.47%	\$ 54.75
2012	\$ 1,621.00	\$ 3,900.03	\$ 10,956.53	\$ 8,196.02	1.47%	\$ 120.48
Cumulative Interest to 2011						\$ 72.13
Cumulative Interest to 2012						\$ 192.62



Ontario Energy Board

Smart Meter Model

Haldimand County Hydro Inc.

This worksheet calculates the Smart Meter Disposition Rider and the Smart Meter Incremental Revenue Requirement Rate Rider, if applicable. This worksheet also calculates any new Smart Meter Funding Adder that a distributor may wish to request. However, please note that in many 2011 IRM decisions, the Board noted that current funding adders will cease on April 30, 2011 and that the Board's expectation is that distributors will file for a final review of prudence at the earliest opportunity. The Board also noted that the SMFA is a tool designed to provide advance funding and to mitigate the anticipated rate impact of smart meter costs when recovery of those costs is approved by the Board. The Board observed that the SMFA was not intended to be compensatory (return on and of capital) on a cumulative basis over the term the SMFA was in effect. The SMFA was initially designed to fund future investment, and not fully fund prior capital investment. Distributors that seek a new SMFA should provide evidence to support its proposal. This would include documentation of where the distributor is with respect to its smart meter deployment program, and reasons as to why the distributor's circumstances are such that continuation of the SMFA is warranted. Press the "UPDATE WORKSHEET" button after choosing the applicable adders/riders.

Check if applicable

- ☐ Smart Meter Funding Adder (SMFA)
☒ Smart Meter Disposition Rider (SMDR)
☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

The SMDR is calculated based on costs to December 31, 2011

The SMIRR is calculated based on the incremental revenue requirement associated with the recovery of capital related costs to December 31, 2012 and associated OM&A.

	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ 29.19	\$ 68.02	\$ 940.89	\$ 1,469.56	\$ 5,685.28	\$ 9,706.28	\$ 17,899.22
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ 0.09	\$ 0.84	\$ 1.97	\$ 11.58	\$ 55.06	\$ 97.57	\$ 167.11
<input checked="" type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)	\$ -	\$ 0.09	\$ 0.84	\$ 1.97	\$ 11.58	\$ 55.06	\$ 97.57	\$ 167.11
<input type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)								\$ -
SMFA Revenues (from Sheet 8)	\$ 266.50	\$ 457.08	\$ 423.54	\$ 1,136.40	\$ 2,473.96	\$ 3,121.36	\$ 1,307.19	\$ 9,186.03
SMFA Interest (from Sheet 8)	\$ 3.08	\$ 23.01	\$ 35.67	\$ 15.38	\$ 27.69	\$ 90.85	\$ 107.67	\$ 303.35
Net Deferred Revenue Requirement	-\$ 269.58	-\$ 450.81	-\$ 390.34	-\$ 208.93	-\$ 1,020.52	\$ 2,528.14	\$ 8,388.98	\$ 8,576.95
Number of Metered Customers (average for 2012 test year)							83	

Calculation of Smart Meter Disposition Rider (per metered customer per month)

Years for collection or refunding	1.5	
Deferred Incremental Revenue Requirement from 2006 to December 31, 2011 plus Interest on OM&A and Amortization	\$ 8,360.05	
SMFA Revenues collected from 2006 to 2012 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$ 9,489.38	
Net Deferred Revenue Requirement	-\$ 1,129.33	
SMDR	November 1, 2012 to April 30, 2014	-\$ 0.76
Check: Forecasted SMDR Revenues	-\$ 1,135.44	Match

Calculation of Smart Meter Incremental Revenue Requirement Rate Rider (per metered customer per month)

Incremental Revenue Requirement for 2012	\$ 9,706.28	
SMIRR	\$ 9.75	
Check: Forecasted SMIRR Revenues	\$ 9,711.00	Match