

March 5, 2012

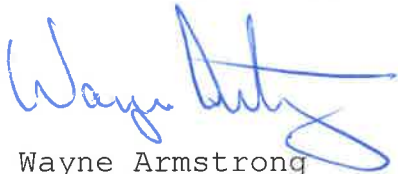
Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319 27th Floor
2300 Yonge Street
Toronto, ON M4P 1E4

Dear Ms Walli:

Re: Welland Hydro-Electric System Corp.
EB-2011-0415
Application to the Ontario Energy Board for 2012 Smart
Meter Cost Recovery effective May 1, 2012

Please find enclosed two copies of Welland Hydro's response to Board Staff interrogatories in the above Smart Meter Cost Recovery application in addition to an electronic version.

Yours very truly,



Wayne Armstrong
Director of Finance
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**Welland Hydro-Electric Systems Corp.
2012 Smart Meter Cost Recovery
EB-2011-0415**

Response - Board Staff Interrogatories

General

1. Letters of Comment

Following publication of the Notice of Application, the Board has, to date, received no letters of comment. Please confirm whether Welland Hydro-Electric Systems Corp. ("Welland") has received any letters of comment. If so, please file a copy of any letters of comment. For each, please confirm whether a reply was sent from Welland to the author of the letter. If confirmed, please file that reply with the Board. Please ensure that the author's contact information except for the name is redacted. If not confirmed, please explain why a response was not sent and confirm if Welland intends to respond.

Response:

Welland can confirm that it has not received any Letters of Comment for this rate application.

Stranded Meters

2. Ref: Application, page 7

In its Application, Welland proposes that the recovery of stranded conventional meters be dealt with in its next cost of service application, currently scheduled for 2013 rates. Until then, the NBV of the stranded meters remains in rate base and the annualized costs are recovered in its normal distribution rates.

Welland documents that the NBV of stranded conventional meters as of December 31, 2010 was \$639,926, including net salvage proceeds of \$3,564. Welland documents the 2011 depreciation expense for these meters as \$80.453, for a December 31, 2011 NBV of \$559,473.

- a) Please provide Welland's estimate of the depreciation expense related to these stranded meters for 2012 and the estimated NBV for the stranded conventional meters as of December 31, 2012.

Response:

Welland can confirm with the Board that the Net Book Value of Stranded Meters is \$559,473 as at December 31, 2011. However, this amount excludes the salvage proceeds of (\$3,564). The combined Net Book Value of Stranded Meters including salvage proceeds is \$555,909 as at December 31, 2011. The 2012 Depreciation expense will be \$75,669. As a result the Net Book Value of Stranded Meters as at December 31, 2012 will be \$483,804 excluding salvage proceeds and \$480,240 including salvage proceeds.

- b) Please provide the estimated NBV of stranded conventional meters as of December 31, 2012, disaggregated by Residential and GS < 50 kW customer classes.

Response:

Residential	\$441,084	91.8%
GS<50	\$ 39,156	8.2%
Total	\$480,240	100.0%

The above split between classes differs significantly from the percentages contained in the 2006 Cost Allocation CWMC (Account 1860) as detailed in Appendix I of the original application. Welland believes that this evidence rules out using the 2006 Cost Allocation for calculating either of the two rate riders requested in this application.

Conversion to Monthly Billing

3. Application, page 10

On page 10 of its Application, Welland states that it was required to switch to monthly billing, from bi-monthly billing, for residential customers. It documents \$60,079 as increased expenses for increased invoices, envelopes, toner and delivery (i.e. postage) costs from this switch, plus an increase in staffing with an expense amount of \$60,921. Offsetting this, Welland states that manual meter reading costs will decrease by \$84,039 for 2012 compared to 2010. Welland thus states an increase in internal costs of \$36,961 for 2012.

- a) Please provide Welland's views as to whether the change to monthly billing will result in a decrease in bad debt expense. If possible, please provide an estimate of bad debt expense for 2012 under monthly billing for all customer classes.

Response:

The following table provides a history of bad debt expense approved in 2009 Rates and actual bad debt expense from 2009 to 2011.

2009 Approved Rate Application	\$59,650
2009 Actual	\$66,509
2010 Actual	\$87,806
2011 Actual	\$96,439

Welland Hydro would agree with Board Staff that in theory the switch to monthly billing should have some impact on bad expense. However, any amount would be difficult to determine given the fact that the actual bad debts continue to increase. There are many factors which contribute to the amount of bad debts. The most obvious is the significant increase in electricity and transmission rates since 2009 which continue to comprise approximately 80% of residential monthly invoice amounts. The next would be the economic situation in the City of Welland. At the time of the 2009 Cost of Service Rate Application, Welland advised the Board of the shutdown of a Large Use Customer and the loss of approximately 600 direct jobs. In addition, during the 2009 Cost of Service Application Welland indicated that another large industrial customer was downsizing in 2009. In 2011, this downsizing turned into a complete shutdown and the loss of another 320 direct jobs. These two closures would also impact other businesses within the city and result in the loss of indirect jobs. In the past year, a large financial institution has also relocated their head office from Welland to another location within the province.

The effects of the recent changes to the LEAP Program may also have an impact on bad debt expense. Welland can confirm for the Board that the bad debt expenses listed above may be higher if not for annual payments of approximately \$12,000 made to social assistance agencies as required by the LEAP program. As these directives were introduced during an IRM period for Welland these amounts are not included in current rates. Under the LEAP Program, low income customers no longer have to pay deposits. Welland Hydro has met with two social assistance agencies within the city and social and disability workers to ensure they are aware of the new guidelines.

As a result, Welland is unable to provide an estimate to the Board of any reductions in bad debt expense due to the change to monthly billing.

- b) Converting from bi-monthly billing to monthly billing significantly reduces the service lag (the mid-point of the service delivery period until meter reading from over 30 days to just over 15 days).

- i. Please provide Welland's views as to the impacts on its cash working capital requirements for 2012 based on converting to monthly billing for residential customers.

Response:

The 2009 Cost of Service Rate application includes a 15% working capital component as part of the rate base. No lead lag study was performed at that time. Welland can confirm for the Board that the switch to monthly billing has had a one time positive impact on cash flow in 2011. The following are 2010 and 2011 year end balances for Accounts Receivable and Unbilled Revenue.

	<u>2010</u>	<u>2011</u>
Accounts Receivable	\$2,841,908	\$2,718,926
Unbilled Revenue	<u>\$5,479,702</u>	<u>\$4,437,336</u>
Total	\$8,321,610	\$7,156,262

The total improvement year over year is \$1,165,348. However, the reduction in receivables due to OCBEA in 2011 compared to 2010 would also result in a reduction in accounts payable (IESO Invoice) of approximately \$285,000 for a net cash flow improvement year over year of \$880,348. Without an extensive analysis Welland is unable to provide the Board what effect this one time balance sheet improvement would have on the working capital percentage included in rate base. In addition, there have been two major changes which result in negative impacts to working capital since the 2009 Rate Application. The first being the introduction of the HST in 2010 and the second is Welland's largest customer is no longer subject to weekly payments as a result of seven years of good payment history. This account is billed on average in excess of \$500,000 per month.

- ii. Is Welland conducting or planning on conducting a lead-lag study for its next cost of service application to take into account the impacts of converting to monthly billing?

Response:

Welland is in the preliminary planning stages for its 2013 COS Application and a final decision on performing a lead lag study is being reviewed.

- iii. If the answer to ii. is no, please explain how Welland intends to account for the impact of the conversion to monthly billing on its cash working capital requirements in its next cost of service application.

Response:

Welland believes that the costs of such a study (borne by the rate payer) must be weighed against the benefits. One alternative to the additional expense is to review decisions where such studies have been performed in order to extrapolate an average working capital percentage which may be acceptable to the Board.

4. Ref: Application, page 10

On page 10 of its application, Welland states:

General Service meters will be read manually until the end of 2011. In 2012, all meter readings will be obtained thru the AMI/ODS at no additional costs. This will result in decreased meter reading costs of (\$84,039) in 2012 compared to 2010.

- a) By General Service, is Welland referring solely to GS < 50 kW customers for which smart meters have been installed, or does it include GS > 50 kW customers?

Response:

Welland was referring to GS<50 kW customers only. The 2010 meter reading costs were \$91,239 of which \$88,839 were related to manual meter reads. The reduction associated with the reading of Residential and GS<50 customers of \$84,039 leaves \$4,800 (\$400/mth as per Appendix D of the original application) to read approximately 130 non interval GS>50 accounts. The actual bill for January 2012 was \$1,400 but this amount is expected to decrease over time.

- b) If meter reading through the AMI/ODS is for classes other than Residential and GS < 50 kW, please indicate whether any capital or operating costs have been allocated to these other classes. Please provide explanations and calculations, as necessary.

Response:

Welland is not currently using the AMI/ODS for the GS>50 class. Meters in this customer class will be replaced over the next 18 to 24 months.

- c) If, in the response to b), Welland indicates that it has incurred costs for interval meters in the GS > 50 kW customer classes to interface with the AMI/ODS, please explain how Welland has recovered or is proposing to recover these costs.

Response:

Not applicable at this time.

Smart Meter Model

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

In its Smart Meter model, on Sheet 8, Welland has input the prescribed interest rate of 1.47% for all months in 2012. This has resulted in a calculation of the interest on SMFA revenues to December 31, 2012. However, Welland's proposal is for the SMDR and SMIRR to be effective May 1, 2012.

Board staff has revised the model inputs so that interest on SMFA revenues is calculated only to April 30, 2012. The revised model is provided as an attachment.

Please provide Welland's views as to whether this is a more accurate calculation of the deferred net incremental revenue requirement to be recovered through the SMDR with respect to installed smart meters.

Response:

Welland agrees with Board Staff that the change in the model is appropriate.

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

In the Smart Meter Model Version 2.17 filed by Welland, the utility has relied upon sheet 8B to calculate the interest on OM&A and depreciation/amortization expenses. Sheet 8B calculates the interest based on the average annual balance of deferred OM&A and depreciation/amortization expenses based on the annual amounts input elsewhere in the model.

The more accurate and preferred method for calculating the interest on OM&A and depreciation/amortization expense is to input the monthly amounts from the sub-account details of Account 1556, using sheet 8A of the model. This approach is analogous to the calculation of interest on SMFA revenues on sheet 8 of the model.

- a) Please re-file the smart meter model using the monthly OM&A and depreciation/amortization expense data from Account 1556 records. Welland should also take into account any revisions necessary, such as in its response to the preceding interrogatory.

Response:

See Appendix A

In addition to the above changes resulting from interrogatories 5 & 6 the model has been updated to include 2011 Full Year Audited Actual results. The previous model was based on 2011 YTD October Actual plus forecasted amounts for November and December 2011. Both Capital and OM&A costs for 2011 were reduced slightly as follows:

	<u>Original Filing</u>	<u>Revised Filing</u>
Capital	\$549,629	\$545,857
OM&A	\$159,268	\$144,307

The OM&A expenses are lower than forecast because Welland Hydro only charged smart meters with increased incremental costs of \$4,154 (added billing personnel only) versus \$24,443 in the original application. Welland maintains that the correct incremental cost due to smart meters for 2011 is a minimum of \$24,443 as presented in Appendix D of the original application. Welland made a decision not to make the adjusting entries for the other incremental expenses in 2011. Welland Hydro made no changes to the 2012 OM&A forecast.

The change in the capital additions is the net of two items. A metro (smaller TGB) was installed to improve the communication of smart meters within the network. Under the terms of the contract with the system provider, Welland was only responsible for the installation costs and Sensus was responsible for all hardware costs. This was offset by the delay in the implementation of the Web Presentment Software until March, 2012. The capital costs for this software will be included in Welland's regular capital plan as no additional capital or expenses will be charged to smart meters in 2012.

The model was also updated to provide the actual smart meter revenue collected as of December 31, 2011. In addition, customer counts were increased marginally resulting in increased forecasted revenue from January to April 2012. The increase in customer count also has a favourable impact on the calculation of rate riders.

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

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

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

Year	2009	2010	2011	2012 and beyond
Aggregate Federal and provincial income tax rate	29.02%	27.50%	24.24%	22.72%

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

Response:

The above percentages represent the tax rates approved in rate applications for each year. The amount of 29.02% was the amount approved in the 2009 Cost of Service Application which is below the maximum and above the minimum rate at that time. Since then, adjustments have been made in each IRM period. Exhibit B attached is from the 2012 IRM Rate Application EB-2011-0202 which shows the starting point in 2009 and the rates for 2012. Welland believes that these are the appropriate tax rates to use. Actual tax rates and amounts paid in any year are subject to timing differences do to the inclusion of regulatory items in taxable income.

Cost Allocation

8. Ref: Manager's Summary, pages 12-14 – Cost Allocation

Welland states that it is proposing a uniform SMDR of (\$0.24) per month and a uniform SMIRR of \$2.34 per month, both applicable to Residential and GS < 50 kW customers. Under cost allocation, Welland has calculated class-specific SMDRs and SMIRRs, based on using the weights from the 2006 Informational Filing and also using costs for meters installed for each of the Residential and GS < 50 kW classes.

Welland also documents that, due largely to increased costs for certain factors, the average cost for a Residential smart meter installation has been about \$127.77 versus \$267.88 for an average GS <50 kW smart meter.

Given the evidence that the average installed cost for a smart meter for a GS < 50 kW customer is more than double that for a Residential customer, please provide Welland's reasons for why it considers that a uniform SMDR and a uniform SMIRR is preferable to one that reflects differences in the average costs. For this response, please consider the cost allocation methodology to be the one proposed by Welland based on the average smart meter costs (i.e., as shown in Appendix H for the class-specific SMDR and in Appendix F Part A for the class-specific SMIRR).

Response:

The main concern for Welland is the age of its existing Cost Allocation model (2006) and the unknown changes on revenue to costs ratios which will result from the new model to be filed with the 2013 COS Application. Welland was taking a conservative view and recommending a uniform charge until the 2013 Cost Allocation Model is completed.

However, the new guideline issued in December states "where practical and where the data is available, class-specific SMDRs should be calculated based on full cost causality." As a result, Welland believes that it has provided the appropriate split by customer class with the methodology used in Appendix F Part A and Appendix H in the original application. Both these exhibits have been revised (see interrogatory #9) for the changes outlined above and the response to VECC interrogatory 1A.

Welland could not support a split based on the 2006 Cost Allocation model as detailed in Appendix F Part B and Appendix I of the original application. The actual amount of stranded meters by customer class in response to 2b) provides further evidence for this position.

9. Ref: Manager's Summary, pages 12-14, Appendices F and H – Cost Allocation

- a) If Welland has made revisions to its Smart Meter Model, Version 2.17 as a result of its responses to interrogatories, please update also Appendix H with respect to class-specific SMDRs.

Response:

See Appendix C attached.

The basis of Appendix H in the original application is to ensure capital costs by customer class match those detailed in Appendix G of the original application. As a result of the minor changes to actual capital and expenses Welland has provided a revised version of the original Appendix G in Appendix E attached.

In the original application Welland did not do a smart meter model by customer class to calculate the amounts in Appendix H but used percentages of meters installed by year. Although the total capital by customer class is correct, Welland believes that this method is not as accurate as performing a smart meter model by customer class as certain costs have been calculated as an average of total meters installed over three years (cannot use a percentage of meters in any one year). As a result, Welland has now calculated Appendix C (revised Appendix H) based on the models by Customer Class as requested by VECC in Interrogatory 1a). The addition of the two models (copies attached to VECC interrogatories) sum to the totals in the uniform model in Appendix A and cost by customer class Appendix E.

- b) Similarly, please update Appendix F Part A with respect to the calculation of class-specific SMIRRs.

Response:

See Appendix D

As with Appendix C this Appendix has been based on the models by customer class.

Other Issues

10. Ref: Application, page 1

Welland notes that the bulk of its smart meters were deployed by October 31, 2011, with complete deployment by December 31, 2011. Welland is also scheduled to implement TOU billing effective February 2012.

- a) Please confirm whether Welland has implemented TOU billing effective February 2012. In the alternative, please advice of the changed schedule and the reasons for the revision.

Response:

Welland can confirm for the Board that out of the 21,592 RPP-eligible consumers as of December 31, 2011 a total of 20,947 (97%) were changed to TOU billing effective with February, 2012 meter reads (January/February usage). For the most part, the remaining 645 customers with smart meters had actual interval read percentages which would require extensive interval estimating by the MDMR or ODS. As a result, Welland made a decision to continue to bill these customers RPP until interval read percentages were comparable to other meters. As detailed below, Welland believes that the majority of issues with the system have been resolved in February and a large percentage of these accounts will be transferred to TOU in March, 2012.

- b) Please provide a synopsis of technological and operational challenges and issues (e.g., intermittent or persistent read failures, incidence of "buddy" meters to solve unreadable meters, additional or relocated collectors, manual adjustment of meter read data, etc.) that Welland and its service provider encountered in Welland's smart meter deployment and operationalization. Please also summarize the resolution of these issues.

Response:

Welland Hydro's mass deployment of smart meters took place in 2009/2010. Following deployment, there were a significant number of meters not communicating with the TGB tower which is the systems main collector. First generation tools provided by the vendor were used to attempt to get the meters communicating. If unsuccessful, the meter would be replaced. After changing several hundred meters, the vendor came out with a more

advanced tool for meter signal strength analysis. Although the tool provided more detailed analysis, the final result was typically replacement of the meter. As a result, approximately 450 additional meters were changed. At that point, Welland was advised by Sensus to halt all meter replacements until the vendor made all attempts to improve the system performance through tuning techniques.

The tuning of the system required Welland Hydro technicians being dispatched to sites to perform in field analysis as the adjustments made occasionally had negative effects on other nearby meters. The vendor also trained Welland Hydro staff to field evaluate meter radio communication modes. These technicians would analyze the communication mode of the non transmitting meter, the modes of nearby meters and the geographical and physical location of the meter. The data would be used to select the appropriate communication mode of the trouble meter and the surrounding meters. A laptop would then be used to reset the communication mode in all affected meters and the vendor would be advised to not include these meters in future network tuning.

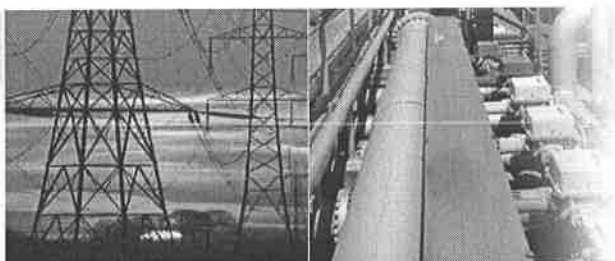
Network issues have consumed the time of one third of Welland's meter department staff (equivalent to one full time staff) for all of 2011. The amount of time spent performing these tasks have decreased slightly in 2012. Having said this, the network is still experiencing below acceptable performance due to noise interference created outside sources. Sensus continues to perform noise mitigation and in some cases, has to involve Industry Canada to force interfering noise sources off line. Although the remaining system issues are expected to be resolved shortly there is still an ongoing risk that new noise sources will arise, causing further performance issues on the system.

- c) Please provide Welland's assessment as to whether operational issues are resolved or resolvable so that all applicable Residential and GS < 50 kW customers can successfully move to TOU billing for February 2012. In the alternative, please explain.

Response:

As indicated in the response to 10a above Welland has already converted 97% of RPP-eligible consumers to TOU billing effective February, 2012. This number is expected to increase significantly for March, 2012 as a result of improvements made to the system from December, 2011 to February, 2012. Welland fully expects that the management of the communication system will continue on an ongoing basis and both Welland Hydro and Sensus are committed to monitor and install additional communication hardware if required.

V 2.17



Ontario Energy Board Smart Meter Model

Choose Your Utility:

Welland Hydro-Electric System Corp.
Wellington North Power Inc.

Application Contact Information

Name: Wayne Armstrong

Title: Director of Finance

Phone Number: 905-732-1381 Ext 234

Email Address: warmstrong@wellandhydro.com

We are applying for rates effective: May 1, 2012

Last COS Re-based Year: 2009

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 filling 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.



Welland Hydro-Electric System Corp.

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

	2005	2007	2008	2009	2010	2011	2012 and later	Total
Residential				19,409	302	482		20,193
General Service < 50 kW				819	153	791		1,763
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)				20,228	455	1,273	0	21,956
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	92.13%	94.20%	100.00%	0.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed								0
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	0	20,228	455	1,273	0	21,956

1 Capital Costs

1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)

1.1.1 Smart Meters (may include new meters and modules, etc.)	Asset Type Asset type must be entered for all calculations	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.1.2 Installation Costs (may include socket kit, labour, vehicle, benefits, etc.)	Smart Meter				41,519	478,283	\$ 2,368,568
1.1.3a Workforce Automation Hardware (may include fieldwork handsets, barcode hardware, etc.)	Smart Meter			323,858	12,953	22,594	\$ 359,405
1.1.3b Workforce Automation Software (may include fieldwork handsets, barcode hardware, etc.)	Computer Hardware			27,297	0	14,440	\$ 41,737
Total Advanced Metering Communications Devices (AMCD)	Computer Software			4,560	0	15,800	\$ 20,360
		\$ -	\$ -	\$ 2,204,481	\$ 54,472	\$ 531,117	\$ 2,790,070

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

1.2.1 Collectors	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.2.2 Repeaters (may include radio licence, etc.)	Tools & Equipment			190,050	0	7,654	\$ 205,753
1.2.3 Installation (may include meter seats and rings, collector computer hardware, etc.)	Other Equipment			2,130	0	0	\$ 2,130
Total Advanced Metering Regional Collector (AMRC) (includes LAN)		\$ -	\$ -	\$ 202,180	\$ -	\$ 7,654	\$ 207,833

1.3 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 Licenses & Installation (includes hardware and software)							
	(may include AS400 disk space, backup and recovery computer, UPS, etc.)							
Total Advanced Metering Control Computer (AMCC)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1.4 WIDE AREA NETWORK (WAN)	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast
	Activation Fees							
	Total Wide Area Network (WAN)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast
	Smart Meter				4,642	60		4,702
	Computer Software				0	7,500	0	7,500
	Smart Meter				0	16,663	6,056	22,709
		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total Other AMI Capital Costs Related to Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Capital Costs Related to Minimum Functionality		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY (Please provide a description and identify nature of beyond minimum functionality costs)	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast
	Computer Software							
	Applications Software							
	Computer Hardware							
		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total Capital Costs Beyond Minimum Functionality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Smart Meter Capital Costs		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

[illegible]



Welland Hydro-Electric System Corp.

	2006	2007	2008	2009	2010	2011	2012 and later
Cost of Capital							
Capital Structure ¹							
Deemed Short-term Debt Capitalization	50.0%	50.0%	53.3%	4.0%	4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	46.7%	52.7%	56.0%	56.0%	56.0%
Deemed Equity Capitalization				43.3%	40.0%	40.0%	40.0%
Preferred Shares				100.0%	100.0%	100.0%	100.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of Capital Parameters							
Deemed Short-term Debt Rate	6.25%	6.25%	6.25%	1.33%	1.33%	1.33%	1.33%
Long-term Debt Rate (actual/embedded/deemed) ²	9.0%	9.0%	9.0%	7.62%	7.62%	7.62%	7.62%
Target Return on Equity (ROE)				8.01%	8.01%	8.01%	8.01%
Return on Preferred Shares				7.54%	7.52%	7.52%	7.52%
WACC	7.63%	7.63%	7.53%	7.54%	7.52%	7.52%	7.52%
Working Capital Allowance							
Working Capital Allowance Rate	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
(% of the sum of Cost of Power + controllable expenses)							
Taxes/PILS							
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	28.02%	27.50%	24.24%	22.72%
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	25	25	25	25	25	25	25
- rate (%)	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
CCA Rates							
Smart Meters - CCA Class							
Smart Meters - CCA Rate				47	47	47	47
				8%	8%	8%	8%
Computer Equipment - CCA Class							
Computer Equipment - CCA Rate				52	52	52	52
				100%	100%	100%	100%
General Equipment - CCA Class							
General Equipment - CCA Rate				8	8	8	8
				20%	20%	20%	20%
Applications Software - CCA Class							
Applications Software - CCA Rate							

Assumptions

¹ Planned smart meter installations occur evenly throughout the year.

² Fiscal calendar year (January 1 to December 31) used.

³ Amortization is done on a straight line basis and has the "half-year" rule applied.



Ontario Energy Board Smart Meter Model

Welland Hydro-Electric System Corp.

Net Fixed Assets - Smart Meters

	2006	2007	2008	2009	2010	2011	2012 and later
Gross Book Value							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 2,177,266	\$ 2,248,451	\$ 2,755,384
Capital Additions during year (from Smart Meter Costs)					\$ 71,185	\$ 506,933	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 2,177,266	\$ 2,248,451	\$ 2,755,384	\$ 2,755,384
Accumulated Depreciation							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 72,576	\$ 220,099	\$ 396,894
Amortization expense during year					\$ 147,524	\$ 166,795	\$ 183,692
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 72,576	\$ 220,099	\$ 386,894	\$ 570,586
Net Book Value							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 2,104,690	\$ 2,028,352	\$ 2,368,490
Closing Balance	\$ -	\$ -	\$ -	\$ 2,104,690	\$ 2,028,352	\$ 2,368,490	\$ 2,184,798
Average Net Book Value	\$ -	\$ -	\$ -	\$ 1,052,345	\$ 2,066,521	\$ 2,198,421	\$ 2,276,644

Net Fixed Assets - Computer Hardware

Gross Book Value							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 27,297	\$ 27,297	\$ 41,737
Capital Additions during year (from Smart Meter Costs)						\$ 14,440	\$ -
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 27,297	\$ 27,297	\$ 41,737	\$ 41,737
Accumulated Depreciation							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 2,730	\$ 8,189	\$ 15,093
Amortization expense during year					\$ 5,459	\$ 6,903	\$ 8,347
Retirements/Removals (if applicable)							
Closing Balance	\$ -	\$ -	\$ -	\$ 2,730	\$ 8,189	\$ 15,093	\$ 23,440
Net Book Value							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 24,567	\$ 19,108	\$ 26,645
Closing Balance	\$ -	\$ -	\$ -	\$ 24,567	\$ 19,108	\$ 26,645	\$ 18,297
Average Net Book Value	\$ -	\$ -	\$ -	\$ 12,284	\$ 21,838	\$ 22,876	\$ 22,471

Net Fixed Assets - Computer Software (including Applications Software)

Gross Book Value							
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 4,560	\$ 12,060	\$ 27,860
Capital Additions during year (from Smart Meter Costs)					\$ 7,500	\$ 15,800	\$ -



Ontario Energy Board
Smart Meter Model

Welland Hydro-Electric System Corp.

Average Net Fixed Asset Values (from Sheet 4)		2006	2007	2008	2009	2010	2011	2012 and Later
Smart Meters	\$	-	\$	\$	\$ 1,052,345	\$ 2,096,521	\$ 2,198,421	\$ 2,276,644
Computer Hardware	\$	-	-	-	\$ 12,284	\$ 21,838	\$ 22,876	\$ 22,471
Computer Software	\$	-	-	-	\$ 2,652	\$ 7,023	\$ 15,846	\$ 18,964
Tools & Equipment	\$	-	-	-	\$ 94,083	\$ 178,262	\$ 182,105	\$ 145,564
Other Equipment	\$	-	-	-	\$ 1,044	\$ 2,045	\$ 1,950	\$ 1,874
Total Net Fixed Assets	\$	-	\$	\$	\$ 1,161,807	\$ 2,275,689	\$ 2,401,208	\$ 2,465,517
Working Capital								
Operating Expenses (from Sheet 2)	\$	\$ 14,070	\$ 15%	\$ 11,730	\$ 95,383	\$ 63,591	\$ 147,307	\$ 176,775
Working Capital Factor (from Sheet 3)	\$	15%	\$ 2,111	\$ 1,760	\$ 14,307	\$ 9,539	\$ 22,096	\$ 26,516
Working Capital Allowance	\$	-	-	-	-	-	-	-
Incremental Smart Meter Rate Base	\$	-	\$ 2,111	\$ 1,760	\$ 1,176,115	\$ 2,285,227	\$ 2,423,304	\$ 2,492,033
Return on Rate Base								
Capital Structure								
Deemed Short Term Debt	\$	-	\$	-	\$ 47,045	\$ 91,409	\$ 96,932	\$ 99,681
Deemed Long Term Debt	\$	-	\$ 1,055	\$ 938	\$ 619,813	\$ 1,279,727	\$ 1,357,050	\$ 1,395,539
Equity	\$	-	\$ 1,055	\$ 822	\$ 509,258	\$ 914,091	\$ 969,322	\$ 996,813
Preferred Shares	\$	-	-	-	-	-	-	-
Total Capitalization	\$	-	\$ 2,111	\$ 1,760	\$ 1,176,115	\$ 2,285,227	\$ 2,423,304	\$ 2,492,033
Return on								
Deemed Short Term Debt	\$	-	\$	-	\$ 626	\$ 1,216	\$ 1,289	\$ 1,326
Deemed Long Term Debt	\$	-	\$ 66	\$ 59	\$ 47,230	\$ 97,515	\$ 103,407	\$ 106,340
Equity	\$	-	\$ 95	\$ 74	\$ 40,792	\$ 73,219	\$ 77,643	\$ 79,845
Preferred Shares	\$	-	-	-	-	-	-	-
Total Return on Capital	\$	-	\$ 161	\$ 133	\$ 88,647	\$ 171,950	\$ 182,339	\$ 187,511
Operating Expenses								
Smart Meters	\$	-	\$ 14,070	\$ 11,730	\$ 95,383	\$ 63,591	\$ 147,307	\$ 176,775
Computer Hardware	\$	-	-	-	-	-	-	-
Computer Software	\$	-	-	-	\$ 72,576	\$ 147,524	\$ 166,795	\$ 183,692
Tools & Equipment	\$	-	-	-	\$ 2,730	\$ 5,459	\$ 6,903	\$ 8,347
Other Equipment	\$	-	-	-	\$ 456	\$ 1,662	\$ 3,992	\$ 5,572
Total Amortization Expense in Year	\$	-	-	-	\$ 8,803	\$ 19,807	\$ 20,191	\$ 20,575
Incremental Revenue Requirement before Taxes/PILs	\$	-	\$ 14,231	\$ 11,863	\$ 85,707	\$ 174,537	\$ 197,966	\$ 218,272
Calculation of Taxable Income	\$	-	\$ 14,070	\$ 11,730	\$ 95,383	\$ 63,591	\$ 147,307	\$ 176,775
Incremental Operating Expenses	\$	-	\$ 14,070	\$ 11,730	\$ 95,383	\$ 63,591	\$ 147,307	\$ 176,775
Amortization Expense	\$	-	\$ 66	\$ 59	\$ 47,855	\$ 98,731	\$ 104,696	\$ 107,686
Interest Expense	\$	-	\$ 95	\$ 74	\$ 40,792	\$ 73,219	\$ 77,643	\$ 79,845
Net Income for Taxes/PILs	\$	-	\$ 53,70	\$ 37,25	\$ 6,642,66	\$ 10,008,19	\$ 15,217,37	\$ 21,478,99
Grossed-up Taxes/PILs (from Sheet 7)	\$	-	\$ 14,285	\$ 11,900	\$ 276,380	\$ 420,086	\$ 542,830	\$ 604,037
Revenue Requirement, including Grossed-up Taxes/PILs	\$	-	\$ 14,285	\$ 11,900	\$ 276,380	\$ 420,086	\$ 542,830	\$ 604,037



Ontario Energy Board Smart Meter Model

Welland Hydro-Electric System Corp.

For PILs Calculation

UCC - Smart Meters

	2006	2007	2008	2009	2010	2011	2012 and later
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 2,090,175.35	\$ 1,991,298.93	\$ 2,318,650.70
Capital Additions	-	-	-	2,177,266.00	71,185.00	506,933.00	-
Retirements/Removals (if applicable)	-	-	-	-	-	-	-
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 2,177,266.00	\$ 2,161,360.35	\$ 2,498,231.93	\$ 2,318,650.70
Half Year Rule (1/2 Additions - Disposals)	-	-	-	1,088,633.00	35,592.50	253,466.50	-
Reduced UCC	\$ -	\$ -	\$ -	\$ 1,088,633.00	\$ 2,125,767.86	\$ 2,244,765.43	\$ 2,318,650.70
CCA Rate Class	0%	0%	0%	8%	8%	8%	8%
CCA	\$ -	\$ -	\$ -	\$ 87,080.64	\$ 170,061.43	\$ 179,581.23	\$ 185,492.06
Closing UCC	\$ -	\$ -	\$ -	\$ 2,090,175.36	\$ 1,991,298.93	\$ 2,318,650.70	\$ 2,133,158.64

UCC - Computer Equipment

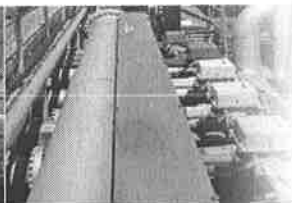
	2006	2007	2008	2009	2010	2011	2012 and later
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 15,928.50	\$ 3,750.00	\$ 15,120.00
Capital Additions	-	-	-	27,237.00	-	14,440.00	-
Retirements/Removals (if applicable)	-	-	-	4,560.00	7,500.00	15,800.00	-
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 22,677.00	\$ 23,428.50	\$ 33,990.00	\$ 15,120.00
Half Year Rule (1/2 Additions - Disposals)	-	-	-	15,928.50	3,750.00	15,120.00	-
Reduced UCC	\$ -	\$ -	\$ -	\$ 15,928.50	\$ 19,678.50	\$ 16,870.00	\$ 15,120.00
CCA Rate Class	0%	0%	0%	100%	100%	100%	100%
CCA	\$ -	\$ -	\$ -	\$ 15,928.50	\$ 19,678.50	\$ 16,870.00	\$ 15,120.00
Closing UCC	\$ -	\$ -	\$ -	\$ 15,928.50	\$ 3,750.00	\$ 15,120.00	\$ -

UCC - General Equipment

	2006	2007	2008	2009	2010	2011	2012 and later
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ -	\$ 180,179.10	\$ 144,143.28	\$ 122,230.22
Capital Additions	-	-	-	198,069.00	-	7,684.00	-
Retirements/Removals (if applicable)	-	-	-	2,130.00	-	-	-
UCC Before Half Year Rule	\$ -	\$ -	\$ -	\$ 200,199.00	\$ 180,179.10	\$ 151,827.28	\$ 122,230.22
Half Year Rule (1/2 Additions - Disposals)	-	-	-	100,099.50	180,179.10	3,842.00	-
Reduced UCC	\$ -	\$ -	\$ -	\$ 100,099.50	\$ 180,179.10	\$ 147,985.28	\$ 122,230.22
CCA Rate Class	0%	0%	0%	20%	20%	20%	20%
CCA	\$ -	\$ -	\$ -	\$ 20,019.90	\$ 36,035.82	\$ 29,597.06	\$ 24,446.04
Closing UCC	\$ -	\$ -	\$ -	\$ 180,179.10	\$ 144,143.28	\$ 122,230.22	\$ 97,784.18

PILs Calculation

INCOME TAX													
\$	-	\$	94.97	\$	73.95	\$	40,791.54	\$	73,218.68	\$	77,642.65	\$	79,844.75
\$	-	\$	-	\$	-	\$	65,707.28	\$	174,537.40	\$	177,966.20	\$	218,272.17
\$	-	\$	-	\$	-	\$	87,090.64	\$	170,061.43	\$	179,951.23	\$	185,492.06
\$	-	\$	-	\$	-	\$	15,928.50	\$	19,678.50	\$	18,870.00	\$	15,120.00
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	20,619.90	\$	36,035.82	\$	29,577.06	\$	24,445.04
\$	-	\$	94.97	\$	73.95	\$	3,459.79	\$	21,980.33	\$	47,560.96	\$	73,058.81
Change in taxable income													
Tax Rate (from Sheet 3)													
36.12%		36.12%		33.50%		29.02%		27.50%		24.24%		22.72%	
Income Taxes Payable													
\$	-	\$	34.30	\$	24.77	\$	1,004.03	\$	6,044.59	\$	11,528.68	\$	16,598.96
ONTARIO CAPITAL TAX													
\$	-	\$	-	\$	-	\$	2,104,690.47	\$	2,028,351.57	\$	2,368,490.07	\$	2,184,787.80
\$	-	\$	-	\$	-	\$	24,567.30	\$	19,107.90	\$	28,644.50	\$	18,287.10
\$	-	\$	-	\$	-	\$	4,104.00	\$	9,942.00	\$	21,750.00	\$	16,178.00
\$	-	\$	-	\$	-	\$	188,165.55	\$	163,358.65	\$	155,851.55	\$	135,276.25
\$	-	\$	-	\$	-	\$	2,081.40	\$	2,002.20	\$	1,917.00	\$	1,831.60
\$	-	\$	-	\$	-	\$	2,323,614.72	\$	2,227,762.32	\$	2,574,693.12	\$	2,346,390.95
Less: Exemption													
Deemed Taxable Capital													
0.300%		0.225%		0.225%		0.225%		0.075%		0.000%		0.000%	
Ontario Capital Tax Rate (from Sheet 3)													
\$	-	\$	-	\$	-	\$	5,228.13	\$	1,670.82	\$	-	\$	-
Net Amount (Taxable Capital x Rate)													
\$	-	\$	34.30	\$	24.77	\$	1,004.03	\$	6,044.59	\$	11,528.68	\$	16,598.96
Change in Income Taxes Payable													
\$	-	\$	34.30	\$	24.77	\$	6,232.16	\$	7,115.41	\$	11,528.68	\$	16,598.96
PILS													
Gross Up PILS													
36.12%		36.12%		33.50%		29.02%		27.50%		24.24%		22.72%	
Tax Rate													
\$	-	\$	53.70	\$	37.25	\$	1,414.53	\$	8,337.37	\$	15,217.37	\$	21,478.99
\$	-	\$	-	\$	-	\$	5,228.13	\$	1,670.82	\$	-	\$	-
\$	-	\$	53.70	\$	37.25	\$	6,642.66	\$	10,006.19	\$	15,217.37	\$	21,478.99
Change in Income Taxes Payable													
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Change in OCT													
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
PILS													



Ontario Energy Board

Smart Meter Model

Welland Hydro-Electric System Corp.

This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	Funding Adder Revenues	Interest Rate	Interest	Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
2006 Q1			Jan-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q2	4.14%	4.68%	Feb-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q3	4.59%	5.05%	Mar-06	2006	Q1	\$ -		0.00%	\$ -	\$ -		
2006 Q4	4.59%	4.72%	Apr-06	2006	Q2	\$ -		4.14%	\$ -	\$ -		
2007 Q1	4.59%	4.72%	May-06	2006	Q2	\$ -		4.14%	\$ -	\$ -		\$ 0.27
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	\$ -	\$ 5,703.00	4.14%	\$ -	\$ 5,703.00		\$ 0.27
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	\$ 5,703.00	\$ 6,199.00	4.59%	\$ 21.81	\$ 11,923.81		\$ 0.27
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	\$ 11,902.00	\$ 5,020.00	4.59%	\$ 45.53	\$ 16,967.53		\$ 0.27
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	\$ 16,922.00	\$ 6,821.00	4.59%	\$ 64.73	\$ 23,607.73		\$ 0.27
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	\$ 23,543.00	\$ 5,167.00	4.59%	\$ 90.05	\$ 28,800.05		\$ 0.27
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	\$ 28,710.00	\$ 6,648.00	4.59%	\$ 109.82	\$ 35,467.82		\$ 0.27
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	\$ 35,358.00	\$ 4,535.00	4.59%	\$ 135.24	\$ 40,028.24	\$ 40,360.18	\$ 0.27
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	\$ 39,893.00	\$ 7,047.00	4.59%	\$ 152.59	\$ 47,092.59		\$ 0.27
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	\$ 46,940.00	\$ 4,914.00	4.59%	\$ 179.55	\$ 52,033.55		\$ 0.27
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	\$ 51,854.00	\$ 7,001.00	4.59%	\$ 198.34	\$ 59,053.34		\$ 0.27
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	\$ 58,855.00	\$ 4,663.00	4.59%	\$ 225.12	\$ 63,743.12		\$ 0.27
2010 Q1	0.55%	4.34%	May-07	2007	Q2	\$ 63,518.00	\$ 6,823.00	4.59%	\$ 242.96	\$ 70,383.96		\$ 0.27
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	\$ 70,141.00	\$ 5,582.00	4.59%	\$ 268.29	\$ 75,971.29		\$ 0.27
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	\$ 75,703.00	\$ 6,127.00	4.59%	\$ 289.56	\$ 82,119.56		\$ 0.27
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	\$ 81,830.00	\$ 4,753.00	4.59%	\$ 313.00	\$ 86,896.00		\$ 0.27
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	\$ 86,583.00	\$ 6,665.00	4.59%	\$ 331.18	\$ 93,579.18		\$ 0.27
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	\$ 93,248.00	\$ 5,038.00	5.14%	\$ 399.41	\$ 98,685.41		\$ 0.27
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	\$ 98,286.00	\$ 6,951.00	5.14%	\$ 420.99	\$ 105,657.99		\$ 0.27
2011 Q4	1.47%	4.29%	Dec-07	2007	Q4	\$ 105,237.00	\$ 4,755.00	5.14%	\$ 450.77	\$ 110,442.77	\$ 73,570.76	\$ 0.27
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	\$ 109,992.00	\$ 7,167.00	5.14%	\$ 471.13	\$ 117,630.13		\$ 0.27
2012 Q2		4.29%	Feb-08	2008	Q1	\$ 117,159.00	\$ 5,325.00	5.14%	\$ 501.83	\$ 122,985.83		\$ 0.27
2012 Q3		4.29%	Mar-08	2008	Q1	\$ 122,484.00	\$ 6,053.00	5.14%	\$ 524.64	\$ 129,061.64		\$ 0.27
2012 Q4		4.29%	Apr-08	2008	Q2	\$ 128,537.00	\$ 6,007.00	4.08%	\$ 437.03	\$ 134,981.03		\$ 0.27
			May-08	2008	Q2	\$ 134,544.00	\$ 5,678.00	4.08%	\$ 457.45	\$ 140,679.45		\$ 0.27
			Jun-08	2008	Q2	\$ 140,222.00	\$ 4,897.00	4.08%	\$ 476.75	\$ 145,595.75		\$ 0.27
			Jul-08	2008	Q3	\$ 145,119.00	\$ 6,738.00	3.35%	\$ 405.12	\$ 152,262.12		\$ 0.27
			Aug-08	2008	Q3	\$ 151,857.00	\$ 4,719.00	3.35%	\$ 423.93	\$ 156,999.93		\$ 0.27
			Sep-08	2008	Q3	\$ 156,576.00	\$ 6,536.00	3.35%	\$ 437.11	\$ 163,549.11		\$ 0.27
			Oct-08	2008	Q4	\$ 163,112.00	\$ 5,977.00	3.35%	\$ 455.35	\$ 169,544.35		\$ 0.27
			Nov-08	2008	Q4	\$ 169,089.00	\$ 6,065.00	3.35%	\$ 472.04	\$ 175,626.04		\$ 0.27
			Dec-08	2008	Q4	\$ 175,154.00	\$ 5,531.00	3.35%	\$ 488.97	\$ 181,173.97	\$ 76,244.35	\$ 0.27
			Jan-09	2009	Q1	\$ 180,685.00	\$ 6,898.00	2.45%	\$ 368.90	\$ 187,951.90		\$ 0.27
			Feb-09	2009	Q1	\$ 187,583.00	\$ 5,065.00	2.45%	\$ 382.98	\$ 193,030.98		\$ 0.27
			Mar-09	2009	Q1	\$ 192,648.00	\$ 6,872.00	2.45%	\$ 393.32	\$ 199,913.32		\$ 0.27
			Apr-09	2009	Q2	\$ 199,520.00	\$ 4,664.00	1.00%	\$ 166.27	\$ 204,350.27		\$ 0.27
			May-09	2009	Q2	\$ 204,184.00	\$ 6,569.00	1.00%	\$ 170.15	\$ 210,923.15		\$ 0.27
			Jun-09	2009	Q2	\$ 210,753.00	\$ 5,033.00	1.00%	\$ 175.63	\$ 215,961.63		\$ 0.27
			Jul-09	2009	Q3	\$ 215,786.00	\$ 5,639.00	0.55%	\$ 98.90	\$ 221,523.90		\$ 0.27
			Aug-09	2009	Q3	\$ 221,425.00	\$ 5,140.00	0.55%	\$ 101.49	\$ 226,666.49		\$ 0.27
			Sep-09	2009	Q3	\$ 226,565.00	\$ 7,030.00	0.55%	\$ 103.84	\$ 233,698.84		\$ 0.27
			Oct-09	2009	Q4	\$ 233,595.00	\$ 5,606.00	0.55%	\$ 107.06	\$ 239,308.06		\$ 0.27
			Nov-09	2009	Q4	\$ 239,201.00	\$ 6,762.00	0.55%	\$ 109.63	\$ 246,072.63		\$ 0.27
			Dec-09	2009	Q4	\$ 245,963.00	\$ 4,505.00	0.55%	\$ 112.73	\$ 250,580.73	\$ 72,073.90	\$ 0.27
			Jan-10	2010	Q1	\$ 250,468.00	\$ 6,602.00	0.55%	\$ 114.80	\$ 257,184.80		\$ 0.27
			Feb-10	2010	Q1	\$ 257,070.00	\$ 5,534.00	0.55%	\$ 117.82	\$ 262,721.82		\$ 0.27
			Mar-10	2010	Q1	\$ 262,604.00	\$ 6,583.00	0.55%	\$ 120.36	\$ 269,307.36		\$ 0.27
			Apr-10	2010	Q2	\$ 269,187.00	\$ 4,917.00	0.55%	\$ 123.38	\$ 274,227.38		\$ 0.27
			May-10	2010	Q2	\$ 274,104.00	\$ 8,606.00	0.55%	\$ 125.63	\$ 282,835.63		\$ 1.81
			Jun-10	2010	Q2	\$ 282,710.00	\$ 19,806.00	0.55%	\$ 129.58	\$ 302,445.58		\$ 1.81
			Jul-10	2010	Q3	\$ 302,316.00	\$ 41,916.00	0.89%	\$ 224.22	\$ 344,456.22		\$ 1.81
			Aug-10	2010	Q3	\$ 344,232.00	\$ 35,562.00	0.89%	\$ 255.31	\$ 380,049.31		\$ 1.81
			Sep-10	2010	Q3	\$ 379,794.00	\$ 44,192.00	0.89%	\$ 281.68	\$ 424,267.68		\$ 1.81
			Oct-10	2010	Q4	\$ 423,986.00	\$ 97,670.00	1.20%	\$ 423.99	\$ 522,079.99		\$ 1.81
			Nov-10	2010	Q4	\$ 521,658.00	\$ 38,179.00	1.20%	\$ 521.66	\$ 560,356.66		\$ 1.81
			Dec-10	2010	Q4	\$ 559,835.00	\$ 40,929.00	1.20%	\$ 559.84	\$ 601,323.84	\$ 353,294.27	\$ 1.81
			Jan-11	2011	Q1	\$ 600,764.00	\$ 40,517.00	1.47%	\$ 735.94	\$ 642,016.94		\$ 1.81
			Feb-11	2011	Q1	\$ 641,281.00	\$ 40,280.00	1.47%	\$ 785.57	\$ 682,346.57		\$ 1.81
			Mar-11	2011	Q1	\$ 681,561.00	\$ 37,927.00	1.47%	\$ 834.91	\$ 720,322.91		\$ 1.81
			Apr-11	2011	Q2	\$ 719,489.00	\$ 37,926.00	1.47%	\$ 881.37	\$ 758,295.37		\$ 1.81
			May-11	2011	Q2	\$ 757,414.00	\$ 37,927.00	1.47%	\$ 927.83	\$ 796,268.83		\$ 2.11
			Jun-11	2011	Q2	\$ 795,341.00	\$ 49,425.00	1.47%	\$ 974.29	\$ 845,740.29		\$ 2.11
			Jul-11	2011	Q3	\$ 844,766.00	\$ 49,017.00	1.47%	\$ 1,034.84	\$ 894,817.84		\$ 2.11
			Aug-11	2011	Q3	\$ 893,783.00	\$ 46,781.00	1.47%	\$ 1,094.88	\$ 941,658.88		\$ 2.11
			Sep-11	2011	Q3	\$ 940,564.00	\$ 45,498.00	1.47%	\$ 1,152.19	\$ 987,214.19		\$ 2.11
			Oct-11	2011	Q4	\$ 986,062.00	\$ 46,904.00	1.47%	\$ 1,207.93	\$ 1,034,173.93		\$ 2.11
			Nov-11	2011	Q4	\$ 1,032,966.00	\$ 45,815.00	1.47%	\$ 1,265.38	\$ 1,079,846.38		\$ 2.11
			Dec-11	2011	Q4	\$ 1,078,581.00	\$ 47,117.00	1.47%	\$ 1,321.26	\$ 1,127,019.26	\$ 537,150.39	\$ 2.11



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)
			Jan-12	2012	Q1	\$ 1,125,698.00	\$ 45,803.00	1.47%	\$ 1,378.98	\$ 1,173,879.98		\$ 2.11
			Feb-12	2012	Q1	\$ 1,172,501.00	\$ 44,017.00	1.47%	\$ 1,436.31	\$ 1,217,954.31		\$ 2.11
			Mar-12	2012	Q1	\$ 1,216,518.00	\$ 47,052.00	1.47%	\$ 1,490.23	\$ 1,265,060.23		\$ 2.11
			Apr-12	2012	Q2	\$ 1,263,570.00	\$ 45,534.00	1.47%	\$ 1,547.87	\$ 1,310,651.87		\$ 2.11
			May-12	2012	Q2	\$ 1,309,104.00		0.00%	\$ -	\$ 1,309,104.00		
			Jun-12	2012	Q2	\$ 1,309,104.00		0.00%	\$ -	\$ 1,309,104.00		
			Jul-12	2012	Q3	\$ 1,309,104.00		0.00%	\$ -	\$ 1,309,104.00		
			Aug-12	2012	Q3	\$ 1,309,104.00		0.00%	\$ -	\$ 1,309,104.00		
			Sep-12	2012	Q3	\$ 1,309,104.00		0.00%	\$ -	\$ 1,309,104.00		
			Oct-12	2012	Q4	\$ 1,309,104.00		0.00%	\$ -	\$ 1,309,104.00		
			Nov-12	2012	Q4	\$ 1,309,104.00		0.00%	\$ -	\$ 1,309,104.00		
			Dec-12	2012	Q4	\$ 1,309,104.00		0.00%	\$ -	\$ 1,309,104.00	\$ 189,259.39	
Total Funding Adder Revenues Collected						\$ 1,309,104.00		\$ 32,849.24	\$ 1,341,953.24	\$ 1,341,953.24		



Ontario Energy Board
Smart Meter Model

Welland Hydro-Electric System Corp.

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

Account 1558 - 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%	4.88%	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	-	\$ 2,465.00		2,465.00	4.59%	-	-
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	2,465.00			2,465.00	4.59%	9.43	9.43
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	2,465.00			2,465.00	4.59%	9.43	18.86
2009 Q4	0.55%	4.68%	Apr-07	2007	Q2	2,465.00	\$ 4,700.00		7,165.00	4.59%	9.43	28.29
2010 Q1	0.55%	4.34%	May-07	2007	Q2	7,165.00			7,165.00	4.59%	27.41	55.69
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	7,165.00			7,165.00	4.59%	27.41	83.10
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	7,165.00	\$ 3,472.00		10,637.00	4.59%	27.41	110.50
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	10,637.00			10,637.00	4.59%	40.69	151.19
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	10,637.00	\$ 3,433.00		14,070.00	4.59%	40.69	191.88
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	14,070.00			14,070.00	5.14%	60.27	252.14
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	14,070.00			14,070.00	5.14%	60.27	312.41
2011 Q4	1.47%	4.29%	Dec-07	2007	Q4	14,070.00			14,070.00	5.14%	60.27	372.68
2012 Q1	1.47%	4.29%	Jan-08	2008	Q1	14,070.00			14,070.00	5.14%	60.27	432.94
2012 Q2	0.00%	4.29%	Feb-08	2008	Q1	14,070.00			14,070.00	5.14%	60.27	493.21
2012 Q3	0.00%	4.29%	Mar-08	2008	Q1	14,070.00			14,070.00	5.14%	60.27	553.48
2012 Q4	0.00%	4.29%	Apr-08	2008	Q2	14,070.00	\$ 3,470.00		17,540.00	4.08%	47.84	601.31
			May-08	2008	Q2	17,540.00			17,540.00	4.08%	59.64	660.95
			Jun-08	2008	Q2	17,540.00			17,540.00	4.08%	59.64	720.59
			Jul-08	2008	Q3	17,540.00	\$ 3,561.00		21,101.00	3.35%	48.97	769.55
			Aug-08	2008	Q3	21,101.00			21,101.00	3.35%	58.91	828.48
			Sep-08	2008	Q3	21,101.00			21,101.00	3.35%	58.91	887.37
			Oct-08	2008	Q4	21,101.00	\$ 3,887.00		24,988.00	3.35%	58.91	946.27
			Nov-08	2008	Q4	24,988.00	\$ 204.00		25,192.00	3.35%	69.76	1,016.03
			Dec-08	2008	Q4	25,192.00	\$ 608.00		25,800.00	3.35%	70.33	1,086.36
			Jan-09	2009	Q1	25,800.00	\$ 6,138.00	\$ 7,142.27	39,080.27	2.45%	52.68	1,139.03
			Feb-09	2009	Q1	39,080.27	\$ 6,737.00	\$ 7,142.27	52,959.54	2.45%	79.79	1,218.82
			Mar-09	2009	Q1	52,959.54	\$ 25,832.00	\$ 7,142.27	85,933.81	2.45%	108.13	1,328.95
			Apr-09	2009	Q2	85,933.81	\$ 5,753.00	\$ 7,142.27	98,829.08	1.00%	71.81	1,398.58
			May-09	2009	Q2	98,829.08	\$ 7,753.00	\$ 7,142.27	113,724.35	1.00%	82.36	1,480.92
			Jun-09	2009	Q2	113,724.35	\$ 12,038.00	\$ 7,142.27	132,902.62	1.00%	94.77	1,575.69
			Jul-09	2009	Q3	132,902.62	\$ 4,090.00	\$ 7,142.27	144,134.89	0.55%	60.91	1,636.60
			Aug-09	2009	Q3	144,134.89	\$ 3,420.00	\$ 7,142.27	154,697.16	0.55%	66.06	1,702.66
			Sep-09	2009	Q3	154,697.16	\$ 2,352.00	\$ 7,142.28	164,191.44	0.55%	70.90	1,773.57
			Oct-09	2009	Q4	164,191.44	\$ 4,455.00	\$ 7,142.28	175,788.72	0.55%	75.25	1,848.82
			Nov-09	2009	Q4	175,788.72	\$ 4,037.00	\$ 7,142.28	186,968.00	0.55%	80.57	1,929.39
			Dec-09	2009	Q4	186,968.00	\$ 12,780.00	\$ 7,142.28	206,890.28	0.55%	85.89	2,015.08
			Jan-10	2010	Q1	206,890.28	\$ 17,360.00	\$ 14,544.78	238,795.06	0.55%	94.82	2,109.91
			Feb-10	2010	Q1	238,795.06	\$ 17,104.00	\$ 14,544.78	270,443.84	0.55%	109.45	2,219.36
			Mar-10	2010	Q1	270,443.84	\$ 2,573.00	\$ 14,544.78	287,561.62	0.55%	123.95	2,343.31
			Apr-10	2010	Q2	287,561.62	\$ 2,331.00	\$ 14,544.78	304,437.40	0.55%	131.80	2,475.11
			May-10	2010	Q2	304,437.40	\$ 2,332.00	\$ 14,544.78	321,314.18	0.55%	139.53	2,614.64
			Jun-10	2010	Q2	321,314.18	\$ 2,331.00	\$ 14,544.78	338,189.96	0.55%	147.27	2,761.91
			Jul-10	2010	Q3	338,189.96	\$ 2,458.00	\$ 14,544.78	355,192.74	0.89%	250.82	3,012.74
			Aug-10	2010	Q3	355,192.74	\$ 2,331.00	\$ 14,544.78	372,066.52	0.89%	263.43	3,276.17
			Sep-10	2010	Q3	372,066.52	\$ 4,863.00	\$ 14,544.78	391,276.31	0.89%	275.95	3,552.12
			Oct-10	2010	Q4	391,276.31	\$ 2,331.00	\$ 14,544.78	408,152.10	1.20%	391.28	3,943.40
			Nov-10	2010	Q4	408,152.10	\$ -	\$ 14,544.78	422,696.89	1.20%	408.15	4,351.55
			Dec-10	2010	Q4	422,696.89	\$ 7,777.00	\$ 14,544.78	445,018.68	1.20%	422.70	4,774.25
			Jan-11	2011	Q1	445,018.68	\$ 2,889.00	\$ 16,497.18	484,204.86	1.47%	545.15	5,319.39
			Feb-11	2011	Q1	484,204.86	\$ 4,013.00	\$ 16,497.18	484,715.04	1.47%	568.65	5,888.05
			Mar-11	2011	Q1	484,715.04	\$ 5,668.00	\$ 16,497.18	506,880.22	1.47%	593.78	6,481.82
			Apr-11	2011	Q2	506,880.22	\$ 3,432.00	\$ 16,497.18	528,809.40	1.47%	620.93	7,102.75
			May-11	2011	Q2	528,809.40	\$ 9,511.00	\$ 16,497.18	552,817.58	1.47%	645.34	7,748.09
			Jun-11	2011	Q2	552,817.58	\$ 4,778.00	\$ 16,497.18	574,092.76	1.47%	677.20	8,425.29
			Jul-11	2011	Q3	574,092.76	\$ 3,832.00	\$ 16,497.18	594,421.94	1.47%	703.26	9,128.55
			Aug-11	2011	Q3	594,421.94	\$ 6,810.00	\$ 16,497.18	617,529.12	1.47%	728.17	9,856.72
			Sep-11	2011	Q3	617,529.12	\$ 10,277.00	\$ 16,497.18	644,303.31	1.47%	756.47	10,613.20
			Oct-11	2011	Q4	644,303.31	\$ 10,093.00	\$ 16,497.18	671,493.50	1.47%	789.27	11,402.47
			Nov-11	2011	Q4	671,493.50	\$ 11,034.00	\$ 16,497.18	699,024.69	1.47%	822.58	12,225.05
			Dec-11	2011	Q4	699,024.69	\$ 74,770.00	\$ 16,497.18	790,291.88	1.47%	858.31	13,083.35
			Jan-12	2012	Q1	790,291.88	\$ 14,231.25	\$ 18,189.34	822,712.47	1.47%	968.11	14,049.46
			Feb-12	2012	Q1	822,712.47	\$ 20,231.25	\$ 18,189.34	861,133.06	1.47%	1,007.82	15,057.28
			Mar-12	2012	Q1	861,133.06	\$ 14,231.25	\$ 18,189.34	893,553.65	1.47%	1,054.89	16,112.17
			Apr-12	2012	Q2	893,553.65	\$ 14,231.25	\$ 18,189.35	925,974.25	1.47%	1,094.60	17,206.77
			May-12	2012	Q2	925,974.25	\$ 14,231.25	\$ 18,189.35	958,394.85	0.00%	-	17,206.77
			Jun-12	2012	Q2	958,394.85	\$ 14,231.25	\$ 18,189.35	990,815.45	0.00%	-	17,206.77
			Jul-12	2012	Q3	990,815.45	\$ 14,231.25	\$ 18,189.35	1,023,236.05	0.00%	-	17,206.77
			Aug-12	2012	Q3	1,023,236.05	\$ 14,231.25	\$ 18,189.35	1,055,656.65	0.00%	-	17,206.77
			Sep-12	2012	Q3	1,055,656.65	\$ 14,231.25	\$ 18,189.35	1,088,077.25	0.00%	-	17,206.77
			Oct-12	2012	Q4	1,088,077.25	\$ 14,231.25	\$ 18,189.35	1,120,497.85	0.00%	-	17,206.77
			Nov-12	2012	Q4	1,120,497.85	\$ 14,231.25	\$ 18,189.35	1,152,918.45	0.00%	-	17,206.77
			Dec-12	2012	Q4	1,152,918.45	\$ 14,231.25	\$ 18,189.35	1,185,339.05	0.00%	-	17,206.77
						\$ 508,856.00	\$ 676,483.05	\$ 1,185,339.05				



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 addendriders.

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)	\$ -	\$ 14,284.63	\$ 11,899.82	\$ 276,379.89	\$ 420,086.22	\$ 542,823.64	\$ 604,036.71	\$ 1,859,516.90
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ 372.68	\$ 713.68	\$ 928.73	\$ 2,759.16	\$ 8,307.11	\$ -	\$ 13,081.35
<input checked="" type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)	\$ -	\$ 372.68	\$ 713.68	\$ 928.73	\$ 2,759.16	\$ 8,307.11	\$ -	\$ 13,081.35
<input type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SMFA Revenues (from Sheet 6)	\$ 39,893.00	\$ 70,099.00	\$ 70,653.00	\$ 69,783.00	\$ 950,296.00	\$ 524,934.00	\$ 183,406.00	\$ 1,309,104.00
SMFA Interest (from Sheet 8)	\$ 467.18	\$ 3,471.76	\$ 5,551.35	\$ 2,290.90	\$ 2,989.27	\$ 12,216.39	\$ 5,953.39	\$ 32,849.24
Net Deferred Revenue Requirement	\$ -	\$ 40,360.18	\$ 58,913.46	\$ 63,630.85	\$ 69,551.11	\$ 13,896.36	\$ 414,777.32	\$ 540,645.02
Number of Metered Customers (average for 2012 test year)								

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

Years for collection or refunding

Deferred Incremental Revenue Requirement from 2006 to December 31, 2011
Plus Interest on OM&A and Amortization
SMFA Revenues collected from 2006 to 2012 test year (inclusive)
Plus Simple Interest on SMFA Revenues
Net Deferred Revenue Requirement

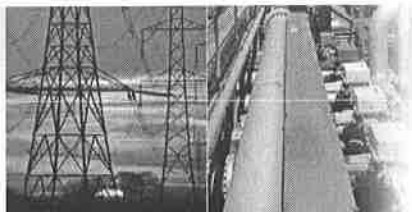
SMDR **Match**
Check: Forecasted SMDR Revenues

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

Incremental Revenue Requirement for 2012

SMIRR **Match**

Check: Forecasted SMIRR Revenues



Ontario Energy Board
2012 IRM 3 Tax
Savings Workform

Welland Hydro-Electric System Corp.

This worksheet calculates the tax sharing amount.

Step 1: Press the **Update Button** (this will clear all input cells and reveal your latest cost of service re-basing year).

Summary - Sharing of Tax Change Forecast Amounts

For the 2009 year, enter any Tax Credits from the Cost of Service Tax Calculation (Positive #)

\$ 15,000

1. Tax Related Amounts Forecast from Capital Tax Rate Changes

Taxable Capital

	2009	2012
Taxable Capital	\$ 26,931,529	\$ 26,931,529

Deduction from taxable capital up to \$15,000,000

Deduction from taxable capital up to \$15,000,000	\$ 15,000,000	\$ 15,000,000
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Net Taxable Capital

Net Taxable Capital	\$ 11,931,529	\$ 11,931,529
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Rate

Rate	0.225%	0.000%
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Ontario Capital Tax (Deductible, not grossed-up)

Ontario Capital Tax (Deductible, not grossed-up)	\$ 26,846	\$ -
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2. Tax Related Amounts Forecast from Income Tax Rate Changes

Regulatory Taxable Income

	2009	2012
Regulatory Taxable Income	\$ 956,964	\$ 956,964

Corporate Tax Rate

Corporate Tax Rate	29.02%	22.72%
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Tax Impact

Tax Impact	\$ 277,719	\$ 202,443
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Grossed-up Tax Amount

Grossed-up Tax Amount	\$ 391,264	\$ 261,969
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Tax Related Amounts Forecast from Capital Tax Rate Changes

Tax Related Amounts Forecast from Capital Tax Rate Changes	\$ 26,846	\$ -
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Tax Related Amounts Forecast from Income Tax Rate Changes

Tax Related Amounts Forecast from Income Tax Rate Changes	\$ 391,264	\$ 261,969
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Total Tax Related Amounts

Total Tax Related Amounts	\$ 418,110	\$ 261,969
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Incremental Tax Savings

Incremental Tax Savings	-\$ 156,141
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Sharing of Tax Savings (50%)

Sharing of Tax Savings (50%)	-\$ 78,071
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Welland Hydro Smart Meter - Disposition Rate Rider
Revised Appendix H- Original Application

Based on Estimated Capital Split - Smart Meters

	\$	Residential Class	%	GS<50 Class	%
2007 Capital Spending	\$0	\$0		\$0	
2008 Capital Spending	\$0	\$0		\$0	
2009 Capital Spending	\$2,409,322	\$2,281,758	94.7%	\$127,564	5.3%
2010 Capital Spending	\$78,685	\$73,720	93.7%	\$4,965	6.3%
2010 Cumulative	\$2,488,007	\$2,355,478	94.7%	\$132,529	5.3%
2011 Capital Spending	\$544,857	\$213,058	39.1%	\$331,799	60.9%
2011 Cumulative	\$3,032,864	\$2,568,536	84.7%	\$464,328	15.3%
 Metered Customers	 21,708	 20,016	 92.2%	 1,692	 7.8%
 Return & Amortization 2007-2009	 \$174,649	 \$165,225	 94.6%	 \$9,424	 5.4%
Return & Amortization 2010	\$346,487	\$327,782	94.6%	\$18,705	5.4%
Return & Amortization 2011	\$380,305	\$338,570	89.0%	\$41,735	11.0%
	<u>\$901,441</u>	<u>\$831,577</u>	<u>92.2%</u>	<u>\$69,864</u>	<u>7.8%</u>
 OM & A Costs & Interest 2007-2011	 <u>\$345,162</u>	 <u>\$318,332</u>	 <u>92.2%</u>	 <u>\$26,830</u>	 <u>7.8%</u>
 Revenue Before PILS 2007-2011	 \$1,246,603	 \$1,149,909	 92.2%	 \$96,694	 7.8%
 Gross-Up PILS 2007-2009	 \$6,734	 \$6,609	 98.1%	 \$125	 1.9%
Gross-Up PILS 2010	\$10,008	\$9,748	97.4%	\$260	2.6%
Gross-Up PILS 2011	\$15,217	\$13,693	90.0%	\$1,524	10.0%
	<u>\$31,959</u>	<u>\$30,050</u>	<u>94.0%</u>	<u>\$1,909</u>	<u>6.0%</u>
 Revenue Requirement 2007-2011	 \$1,278,562	 \$1,179,959	 92.3%	 \$98,603	 7.7%
 Smart Meter Funding Adder Revenue & Carrying Costs 2006-2012	 <u>\$1,341,953</u>	 <u>\$1,237,281</u>	 <u>92.2%</u>	 <u>\$104,672</u>	 <u>7.8%</u>
 Smart Meter True Up Amount	 -\$63,391	 -\$57,322		 -\$6,069	
 Disposition Rate Rider	 <u>-\$0.24</u>	 <u>-\$0.24</u>		 <u>-\$0.30</u>	

Welland Hydro Smart Meter - Revenue Requirement Rate Rider
Revised Appendix D-Original Application

A) Based on Estimated Capital Split - Smart Meters

	<u>Total</u>	<u>Residential Class</u>	<u>%</u>	<u>GS<50 Class</u>	<u>%</u>
Capital Expenditures	\$3,032,864	\$2,568,536	84.7%	\$464,328	15.3%
Metered Customers	21,708	20,016	92.2%	1,692	7.8%
Short Term Interest	\$1,326	\$1,105		\$221	
Long Term Interest	\$106,340	\$88,631		\$17,709	
Return on Equity	\$79,845	\$66,548		\$13,297	
Amortization	\$218,272	\$186,026		\$32,246	
	<u>\$405,783</u>	<u>\$342,310</u>	84.4%	<u>\$63,473</u>	15.6%
OM & A Costs	<u>\$176,775</u>	<u>\$162,986</u>	92.2%	<u>\$13,789</u>	7.8%
Revenue Before PILS	\$582,558	\$505,296	86.7%	\$77,262	13.3%
Gross-Up PILS	<u>\$21,479</u>	<u>\$18,619</u>	86.7%	<u>\$2,860</u>	13.3%
Revenue Requirement	\$604,037	\$523,915		\$80,122	
Revenue Requirement Rate Rider	<u>\$2.32</u>	<u>\$2.18</u>		<u>\$3.95</u>	

Welland Hydro - Capital Cost By Customer Class
Revised Appendix G-Original Filing

	Total Units	Total Cost	Residential Units	Residential Cost	GS<50 Units	GS<50 Cost
<u>1.1.1 Meters</u>						
Non Three Phase	20,936	\$1,954,312	19,937	\$1,861,058	999	\$93,254
Three Phase	1,020	414,256	256	103,970	764	310,286
<u>1.1.2 Installation</u>						
Non Three Phase Labour	20,936	173,850	19,937	165,554	999	8,296
Three Phase Labour	1,020	19,607	256	4,921	764	14,686
Adaptors-All Meters	21,956	64,035	20,193	58,893	1,763	5,142
Meter Rings-All Meters	21,956	98,040	20,193	90,168	1,763	7,872
Plastic Padlock-All Meters	21,956	3,873	20,193	3,562	1,763	311
<u>1.1.3a Workforce Automation</u>						
Hardware-All Meters	21,956	41,737	20,193	38,386	1,763	3,351
<u>1.1.3b Workforce Automation</u>						
Software-All Meters	21,956	20,360	20,193	18,725	1,763	1,635
<u>1.2 AMRC</u>						
Total Cost-All Meters	21,956	207,883	20,193	191,191	1,763	16,692
<u>1.5 Other AMI Costs</u>						
Total Cost-All Meters	21,956	<u>34,911</u>	20,193	<u>32,108</u>	1,763	<u>2,803</u>
Total Capital Costs	21,956	\$3,032,864	20,193	\$2,568,536	1,763	\$464,328
Average Capital Cost/Meter		\$138.13		\$127.20		\$263.37