Welland Hydro
ELECTRIC SYSTEM CORP.
POWERING WELLAND'S FUTURE

December 5, 2011

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.
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 Application for Smart Meter Cost Recovery effective May 1, 2012, together with an electronic version of same and required Excel spreadsheets.

Yours very truly,

Wayne Armstrong
Director of Finance
Tel: (905)732-1381 Ext 234
Fax: (905)732-0123
warmstrong@wellandhydro.com

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

AND IN THE MATTER OF an Application by Welland Hydro-Electric System Corp. to the Ontario Energy Board for an Order or Orders approving or fixing just and reasonable rates with respect to smart meters as of May 1, 2012.

WELLAND HYDRO-ELECTRIC SYSTEM CORP. 2012 SMART METER COST RECOVERY APPLICATION

Wayne Armstrong
Director of Finance
Welland Hydro-Electric System Corp.
950 East Main Street
P.O. Box 280 Welland,
Ontario L3B 5P6

Tel: (905) 732-1381 Ext. 234
Fax: (905) 732-0123
warmstrong@wellandhydro.com

TABLE OF CONTENTS

APPENDICES

WELLAND HYDRO-ELECTRIC SYSTEM CORP.
APPLICATION FOR APPROVAL OF SMART METER COST RECOVERY
EFFECTIVE MAY 1, 2012

1) INTRODUCTION

Welland Hydro-Electric System Corp. ("Welland Hydro") is an electricity distributor that is licensed and rate regulated by the Ontario Energy Board (referred to in this Application as the "Board", or the "OEB") under the Ontario Energy Board Act, 1998. Welland Hydro holds Electricity Distribution Licence No. ED-2003-0002.

Welland Hydro has been installing Smart Meters in its service area since 2009. As of October 31, 2011 Welland Hydro had 21,520 RPP-eligible consumers in the Residential and General Service Less Than 50kW customer classes. Of these customers, 21,351 or 99.2% have a smart meter installed with the balance scheduled for completion by December 31, 2011. Total Capital Costs related to Smarts Meters included in this application are forecast at $3,037,636. The total amount of capital expenditures to October 31, 2011 is $3,006,690 or 99.0% and have been audited by Welland Hydro's external auditors (see Appendix A for interim 2011 audit letter). The balance of capital spending ($30,946) is represented by computer hardware expenditures for customer web presentment and installation costs of the remaining smart meters. Welland Hydro is currently scheduled to begin Time of Use Pricing with meter reads effective February, 2012. As a result, Welland Hydro seeks to dispose of the significant balances in the smart meter deferral accounts effective May 1, 2012.

Welland Hydro is currently subject to the Board's 3rd Generation Incentive Regulation Mechanism and is not scheduled for a Cost of Service Application until its 2013 Rate Application. On October 14, 2011 Welland Hydro filed its 2012 IRM Rate Application EB-2011-0202. The current Smart Meter Funding Adders of $2.11 per metered customer have a sunset date of April 30, 2012 and are removed from distribution rates in the IRM Application.

The removal of the Smart Meter Funding Adder is a major contributor to the forecasted decrease of $1.95 in the monthly bill for Residential customers and a $2.11(after correction for Board Staff Interrogatory #2) decrease in the monthly bill for General Service Less Than 50kW customers included in that application. Welland Hydro submits that it is appropriate to recover the revenue requirement related to smart meters effective May 1, 2012 rather than waiting till the next Cost of Service Application to avoid significant rate fluctuations.

In light of the foregoing, Welland Hydro is filing this application for the recovery of the revenue requirement related to smart meters installed in its service area. The Board has anticipated applications of this kind in its Guideline G-2008-0002 – Smart Meter Funding and Cost Recovery (issued October 22, 2008). At page 13, the Board states:

> "The Board recognizes that significant smart meter related costs may accrue during the term of an IRM plan. A distributor that has achieved at least 50% penetration of smart meters within is service area may seek cost recovery by way of the disposition of the balances in its smart meter related deferral accounts. Disposition of the balances in the deferral accounts does not affect the distributor's rate base or revenue requirement, which can only be adjusted during a cost of service proceeding.
>
> When a distributor applies for and receives an order of the Board providing disposition of the smart meter deferral accounts in a non-cost of service proceeding, a disposition rider will be approved to provide recovery. The smart meter disposition rider provides a proxy for how the revenue requirement would be determined in a cost of service proceeding."

In this Application, Welland Hydro is seeking Board approval of two proposed rate riders related to smart meters as described below:

- Smart Meter Disposition Rate Rider - ($0.24)

  This rate rider would be in effect from May 1, 2012 to April 30, 2013 and represents a credit to customers resulting from comparing Revenues collected from customers to April 30, 2012 versus the revenue requirement recoverable to December 31, 2011.

- Smart Meter Incremental Revenue Requirement Rate Rider - $2.34

  This rate rider would be in effect from May 1, 2012 to April 30, 2013 which is the next scheduled Cost of Service Rate Application for Welland Hydro. This rate rider represents how the revenue requirement would be determined in a Cost of Service proceeding and is based on Smart Meter Capital Expenditures to December 31, 2011 and forecasted Smart Meter Operating Expenditures for January 1, 2012 to December 31, 2012.

Both rate rider amounts are fixed monthly charges per metered customer in the Residential and General Service Less Than 50kW customer classes. The net total of the two rate riders of $2.10 ($2.34-$0.24) is equivalent to the current Smart Meter Funding Adder of $2.11.

In order to provide meaningful bill impacts for the Residential and General Service Less than 50kW customer classes, the rate riders requested in this application should be combined with changes contained in Welland Hydro's 2012 IRM Rate Application EB-2011-0202. The total combined monthly bill impact for these customer classes would be as follows:

	Residential	GS<50kW
2012 IRM Application EB-2011-0202	($1.95)	($2.11)
Smart Meter Disposition	($0.24)	($0.24)
Smart Meter Revenue Requirement	$2.34	$2.34
HST Disposition and Revenue Requirement	$0.27	$0.27
OCEBA 10% Disposition, Revenue, HST	($0.24)	($0.24)
Total Monthly Bill Impact	$0.18	$0.02

All other rate classes would have monthly bill impacts as presented in the 2012 IRM Rate Application EB-2011-0202 submitted October 14, 2011.

Welland Hydro submits that this application has been prepared in accordance with the Board's guidelines and requirements and respectfully requests that this Application be disposed of by way of a written hearing. In the event that the Board determines that it is necessary to convene an oral hearing in respect of this Application, Welland Hydro will advise the Board as to the members of its witness panel(s). It is anticipated that any witness panel(s) will be comprised of Welland Hydro personnel.

Welland Hydro requests the Board to give reasons in writing for its final decision and order(s) in this proceeding.

2) SMART METER COSTS

In this application, Welland Hydro is seeking recovery of costs related to the installation of 21,892 (21,520 eligible customers) smart meters installed from 2009 to 2011. Smart Meters installed exceeds eligible customers as there are currently sites with more than one meter and sites with a smart meter where the power is currently turned off. Welland Hydro can confirm to the Board that smart meters and advanced metering infrastructure which it has purchased has been vetted by the Fairness Commissioner as per Exhibit B attached. Exhibit B attached identifies that smart meter and advanced metering infrastructure were purchased from KTI/Sensus Limited. A copy of the Advanced Metering Infrastructure Sales and Services Agreement between Welland Hydro and Sensus is being filed in confidence, pursuant to the Board's Practice Direction on Confidential Filings. Welland Hydro is prepared to provide copies of the documents to parties' counsel and experts or consultants provided that they have executed the Board's form of Declaration and Undertaking with respect to confidentiality and that they comply with the Practice Direction, subject to Welland Hydro's right to object to the Board's acceptance of a Declaration and Undertaking from any person. The confidential agreement is being filed separately and marked "Confidnetial". Welland Hydro has not incurred any cost for meter functionality beyond the minimum functionality adopted in O. Reg 425/06.

Welland Hydro has completed the Smart Meter Model (Appendix C) provided by the OEB to arrive at the proposed Smart Meter Incremental Revenue Requirement Rate Rider of $2.34 and

the proposed Smart Meter Disposition Rate Rider of ($0.24). Both rate riders are per metered customer per month. Table 1 below provides a summary of the total capital costs for all smart meters and the forecasted incremental OM & A costs for 2012.

Table 1: Cost per installed Smart Meter

Description	Total Cost	Cost per Meter
Smart Meters and AMI System	$3,021,740	$138.03
Web Presentment	$15,896	$0.73
Total Capital Costs	**$3,037,636**	**$138.76**
Number of Smart Meters installed	21,892	
Incremental O & M 2012 projected	$176,775	$8.07
Total Cost per installed Smart Meter		**$146.83**

In its decision on PowerStream's Smart Meter Rate Application EB-2010-0209 Board Staff provided a table of Cost per installed Smart Meter for Urban Distributors for a comparison to the $153.63 average cost per installed smart meter incurred by PowerStream. This table has been reproduced in Table 2 below.

Table 2: Cost per installed Smart Meter for Urban Distributors

Distributor	Capital and Operating Cost per installed Smart Meter
Toronto Hydro-Electric System Limited	$126.34
Hydro One Brampton Networks Inc	$148.04
Hydro Ottawa	$135.58
Enersource Hydro Mississauga	$144.20
Mitlton Hydro	$126.83
Newmarket-Tay Hydro	$123.59

Board Staff also noted that costs since the Combined Proceeding (EB-2007-0063) which provided the above figures may have risen due to inflationary pressures as well as increased costs related to deployment of smart meters to locations that are harder to reach or where rework may involve more time, labour and material. Welland Hydro's total cost of $146.83 per installed meter represents 100% of all smart meters including the more difficult and more expensive three

phase meters. Installation costs for these meters would also increase compared to the initial mass deployment where there were economies related to volume. As a result, Welland Hydro believes that the total costs per installed smart meter submitted in this application are reasonable and prudently incurred.

Welland Hydro has provided the Board with estimated Smart Meter costs in both its 2010 IRM (EB-2009-0252) and 2011 IRM (EB-2010-0118) Rate Applications. A comparison of the smart meter capital forecasts in the previous applications to the current application is as follows:

	2010	2011	2012
Smart Meters & Installation	$2,894,476	$2,642,299	$2,724,533
Work Force Automation-Hardware	6,129	27,297	57,633
Work Force Automation-Software	4,560	4,560	20,360
Advance Metering Collector	247,576	247,576	200,199
Other AMI Capital Costs	2,382	60,290	34,911
Total Capital Costs	$3,155,123	$2,982,022	$3,037,636

Changes in the workforce automation hardware/software costs reflect additions to systems including meter changes live in the field, operational data storage (ODS), and web presentment. These have been offset by reduce three phase meter costs and collector costs. Overall, Welland Hydro believes that its initial estimated capital costs related to smart meters reflect the costs included in this application.

However, OM & A costs were more difficult to forecast as agreements related to the ODS, Web Presentment, Business Process Redesign, and Program Management costs were not known in 2009/10. As a result, incremental annual OM & A costs included in this application better reflect actual costs than previous estimates.

3) Stranded Meter Costs

Welland Hydro is not seeking disposition of its stranded meter costs. Welland Hydro continues to recover these costs by including the net book value of stranded meters in its rate base for rate-making purposes.

The net book value of the stranded conventional meters at December 31, 2010 was $639,926 and are included in Welland Hydro's net fixed assets. This amount will be reduced by a depreciation amount of $80,453 in 2011 resulting in a net book value of $559,473 at December 31, 2011. Proceeds on the scrapped meters total ($3,564) and are also included in net fixed assets but are not subject to depreciation.

These balances are expected to be dealt with in Welland Hydro's next Cost of Service Application in 2013.

4) Smart Meter Incremental Revenue Requirement Rate Rider Calculation

Welland Hydro is seeking a rate rider to recover the revenue requirement associated with the smart meter investments approved in this Application from May 1, 2012 until this is incorporated into distribution rates in Welland Hydro's next Cost of Service distribution rate application currently scheduled for 2013.

The smart meter incremental revenue requirement rate rider is derived from the 2012 revenue requirement of $605,226 as calculated in Tab 5 (Smart Meter Revenue Requirement) of the Smart Meter Cost Recovery Model (Appendix C attached) and summarized in Table 3 below.

Table 3: Calcualtion of Revenue Requirement

Rate Base	**Amount**
Net Fixed Assets	$2,468,108
Working Capital Allowance	$26,516
Incremental Smart Meter Rate Base	**$2,494,624**
Revenue Requirement	
Short Term Interest	$1,327
Long Term Interest	$106,451
Return on Equity	$79,928
OM & A	$176,775
Amortization	$220,454
Grossed-Up PILS	$20,292
Total	**$605,226**

The Smart Meter Cost Recovery Model then calculates the Smart Meter Incremental Revenue Requirement Rate Rider by dividing the Total Revenue Requirement of $605,226 by the number of Metered Customers (Residential & GS<50kW) 21,520 divided by twelve months to arrive at the monthly rate rider of $2.34.

The capital expenditures which make up the average net fixed assets included above are included in Tab 2-Smart Meter Costs of the Smart Meter Recovery Model. The majority of the capital costs are actual meter costs and their installation along with the AMRC Collector. The balance represent costs associated program management, workforce automation hardware and software, and the set up of the Operational Data Storage (ODS). No further capital expenditures will be charged to the Smart Meter Deferred Capital Account effective January 1, 2012.

In order to prepare for Time of Use Billing, Welland Hydro was required to make a decision on whether to upgrade the existing billing software within the current CIS (unique to Welland Hydro) or implement a new system. The current vendor provided an initial estimate of $170,000 for modifications to connect to the MDMR and implement time of use billing. After careful review Welland Hydro had concerns about the actual modification costs exceeding the estimate, additional costs to modify the CIS/Billing system for ongoing upgrades to the MDMR, limited

internal resources, and a very distinct possibility that this project would not meet the Time of Use dates assigned by the OEB. As a result, Welland Hydro decided to install a new NorthStar CIS from Harris which is in place at over 40 distributors in Ontario. Capital conversion costs totalled $344,000 and maintenance costs are approximately $11,000 per month. As the previous billing system was maintained internally the above costs are incremental to Welland Hydro. The decision to replace the current billing system at this time was predicated by the mandated Smart Meter Initiative and Time of use Pricing. Although Welland Hydro believes a case can be made to include a portion of the CIS conversion and maintenance costs to the Smart Meter Deferral Accounts, Welland Hydro can confirm to the Board that no costs associated with the conversion to the new CIS have been included in capital or operating expenses included in this application.

With the exception of OM & A costs most items within the Revenue Requirement are based on capital expenditures. The OM & A costs of $176,775 in Table 3 represent forecasted costs for January 1, 2012 to December 31, 2012. Tab-2 Smart Meter Costs in the Smart Meter Recovery Module details costs by type of expenditure with a total of $129,891 included as 2.5 Other AMI Costs Related to Minimum Functionality as shown in Table 4 below.

Table 4: Other Incremental AMI OM & A Costs

Description	Amount
2.5.1 Business Process Redesign	$36,961
2.5.2 Customer Communication	$6,000
2.5.3 Program Management	$49,148
2.5.6 Other AMI Expenses	$37,782
Total Incremental Other AMI	**$129,891**

2.5.2 Customer Communication costs reflect education materials to be sent out to customers concerning the implementation of Time of Use Rates which will take place with February, 2012 meter reads. 2.5.3 Program Management Costs represent consulting and Sync Operator services contracted out to a third party to deal with MDMR reporting and exceptions and network management. 2.5.6 Other AMI Expenses are related to ODS storage applications.

2.5.1 Business Process Redesign reflects the changes to annual internal costs as a result of preparation for Time of Use Pricing. Appendix D attached provides details concerning these changes. As a result of switching to a new CIS Billing System, Welland Hydro was required to convert Residential accounts from bi-monthly to monthly billing. This has resulted in Welland Hydro issuing approximately 9,176 additional invoices per month. Additional costs for invoices, envelopes, toner, and delivery cost not included in distribution rates total approximately $60,079 per year. In addition, Welland Hydro will be increasing the staff of the billing department from two to three individuals effective November 28, 2011 for which 75% or $60,921 will be charged to smart meters. Welland Hydro believes this to be a conservative estimate as a result of an increase in the volume of transactions and complexity associated with the implementation of Time of Use Pricing. These cost increases will be for the most part offset by decreases in meter reading costs. During 2011 Welland Hydro eliminated manual reading of Residential meters and began reading these meters electronically thru a third party until the ODS was in place in the 4th quarter of 2011. 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. The net result is an increase in annual internal costs of $36,961 in 2012 related to 2.5.1 Business Process Redesign.

As a result of the above, Welland Hydro is requesting the Board to approve a Smart Meter Incremental Revenue Requirement Rate Rider of $2.34 per metered Residential and GS<50kW customers effective May 1, 2012 until the next Cost of Service Rate Application currently scheduled for 2013.

5) Smart Meter Disposition Rate Rider

The Smart Meter Disposition Rate Rider reconciles the Revenue Requirements for January 1, 2007 to December 31, 2011 compared to revenues collected from the Smart Meter Funding Adder from May, 2006 to April, 2012. These figures are presented in the various tabs of the Smart Meter Recovery Model and are summarized in Table 5 below.

Table 5: Smart Meter Disposition Rate Rider

Revenue Requirement 2007	$14,285
Revenue Requirement 2008	$11,900
Revenue Requirement 2009	$276,380
Revenue Requirement 2010	$420,086
Revenue Requirement 2011	$554,288
Interest on OM & A Deferred Accounts	$14,224
Total Revenue Requirement	**$1,291,163**
Smart Meter Rate Adder Revenue	$1,306,396
Carrying Costs	$45,637
Smart Meter True Up	**-$60,870**
Metered Customers	21,520
Smart Meter Disposition Rate Rider	-$0.24

Welland Hydro can confirm for the Board that total smart meter OM & A expenses (excluding depreciation) from January 1, 2007 to December 31, 2011 total $344,042. The total amount which as been audited by Welland Hydro's external auditor to October 31, 2011 is $246,276 or 72%. The balance of forecasted spending for 2011 of $97,766 are detailed in Table 6 below.

Table 6: Forecasted OM & A November-December 2011

2.3.2 TGB Maintenace Oct-Dec	$6,264
2.3.2 Meter Change Software Maintenance Oct-Dec	$2,996
2.5.1 Incremental Business Redesign Costs-Appendix D	$24,443
2.5.2 Customer Communication-Appendix E	$42,948
2.5.3 Consulting MDMR Oct-Dec	$3,774
2.5.3 Sync Operator Charges Oct-Dec	$8,450
2.5.6 ODS Maintenance Oct-Dec	$8,536
2.5.6 AS2 Hosting Nov-Dec	$355
Smart Meter True Up	**$97,766**

As a result of the above, Welland Hydro is requesting the Board to approve a Smart Meter Disposition Rate Rider of ($0.24) per metered Residential and GS<50 customer effective May 1, 2012 until April 30, 2013.

6) Rate Change Summary and Bill Impacts

Table 7 below summarizes the rate changes sought in this Application and the 2012 IRM EB-2011-0202 filed on October 14, 2011.

Table 7 Combined Bill Impact By Customer Class

Customer Class	Current Monthly Bill*	2012 IRM	Smart Meter Disposition Rider	Smart Meter Revenue Requirement Rider	HST Smart Meter Riders	OCEBA Smart Meter Riders & HST	Change $	Change %
Residential	$109.86	-$1.95	-$0.24	$2.34	$0.27	-$0.24	$0.18	0.16%
GS<50 kW**	$255.82	-$2.11	-$0.24	$2.34	$0.27	-$0.24	$0.02	0.01%
GS>50 kW	$1,676.86	-$21.81	$0.00	$0.00	$0.00	$0.00	-$21.81	-1.30%
Large Use	$515,862.15	-$4,395.33	$0.00	$0.00	$0.00	$0.00	-$4,395.33	-0.85%
Unmetered	$67.00	-$0.01	$0.00	$0.00	$0.00	$0.00	-$0.01	-0.01%
Sentinel Lights	$17.34	$0.02	$0.00	$0.00	$0.00	$0.00	$0.02	0.12%
Street Lights	$11.82	-$0.07	$0.00	$0.00	$0.00	$0.00	-$0.07	-0.59%

* See 2012 IRM Rate Application EB-2011-0202
** Adjusted for Board Staff Interrogatory #2

7) Cost Allocation

Page 4 of the instructions included in the Smart Meter Recovery model (Appendix C Page 19) states "The model does not deal with allocations between customer rate classes. In calculating the SMDR and SMIRR, the Board has approved, in some applications, the recovery of amounts from certain applicable customer classes based on the availability of detailed data at the customer class level and on principles of cost causality. Appendix F provides the Board with two alternatives for calculating the Smart Meter Revenue Requirement Rate Rider. The first is based on a review of actual smart meter costs and the second is based on information from the 2006 Cost Allocation (last module submitted by Welland Hydro). Appendix G provides the detail for apportioning capital costs between Residential and GS<50kW rate classes. The basis of the split focuses on the more expensive three phase meters which were not purchased until 2011 and were installed by Welland Hydro personnel (during this time Welland Hydro outsourced locates to free up appropriate manpower). The actual number of meters in each class is known and the

associated costs (meters/installation) have been split accordingly. All of the other costs were split between classes based on meters in each class. This results in an average capital cost/meter of $127.77 for Residential and $267.88 for GS<50kW. Using these capital costs would produce Smart Meter Revenue Requirement Rate Riders of $2.21 for Residential and $3.86 for GS<50kW as shown in Appendix F as opposed to a uniform rate of $2.34. The use of information contained in the 2006 Cost Allocation Model would produce Smart Meter Revenue Requirement Rate Riders of $1.90 for Residential and $7.49 for GS<50kW. Welland Hydro would argue that using a five year old cost allocation model to apportion capital costs based on conventional meters is inappropriate. This methodology assigns 67.2% of the costs to 92.1% of the meters. Advances in technology has significantly narrowed the gap between the cost of residential and commercial meters. As a result, should the Board decide against the uniform Smart Meter Revenue Requirement Rate Rider that Welland Hydro has requested, Welland Hydro proposes that the Board use the estimated split contained in Appendix F Part A.

The model also states that "whichever method is adopted, the Board is of the view that any cost allocation approach should be consistent between the SMDR and the SMIRR when disposition is sought in a stand-alone application." As a result, Appendix H details the calculation of the Smart Meter Disposition Rate Rider using the estimated actual cost per customer class and Appendix I uses the cost allocation methodology.

Since the three phase meters were not installed until 2011, Welland Hydro has prepared Appendix H (Return on Rate Base and Amortization) based on cumulative capital spending by class in each year. The Smart Meter Funding Adder Revenue and Carrying Costs are based on actual amounts collected from customers. Revenues collected from GS>50kW and Large Use customer classes have been apportioned based on revenues collected in the Residential and GS<50kW classes. The result is a Smart Meter Disposition Rate Rider of ($0.28) for the Residential class and $0.27 for GS<50kW as opposed to a uniform rate of ($0.24).

Appendix I calculates the Smart Meter Disposition Rate Rider based on information from the 2006 Cost Allocation Model. Smart Meter Funding Adder Revenue and Carrying Costs have been apportioned in the same percentage as Revenue Requirement. As indicated above, Welland Hydro believes that the use of information from a five year old cost allocation model is inappropriate. Should the Board decide against the uniform Smart Meter Disposition Rate Rider that Welland Hydro has requested, Welland Hydro proposes that the Board use the estimated split contained in Appendix H.

Table 8 below shows the Combined Bill Impact By Customer Class should the rate riders be based on estimated capital costs by customer class.

Table 8 Combined Bill Impact By Customer Class - Based on Estimated Capital Cost By Class

Customer Class	Current Monthly Bill*	2012 IRM	Smart Meter Disposition Rider	Smart Meter Revenue Requirement Rider	HST Smart Meter Riders	OCEBA Smart Meter Riders & HST	Change $	Change %
Residential	$109.86	-$1.95	-$0.28	$2.21	$0.25	-$0.22	$0.01	0.01%
GS<50 kW**	$255.82	-$2.11	$0.27	$3.86	$0.54	-$0.47	$2.09	0.82%
GS>50 kW	$1,676.86	-$21.81	$0.00	$0.00	$0.00	$0.00	-$21.81	-1.30%
Large Use	$515,862.15	-$4,395.33	$0.00	$0.00	$0.00	$0.00	-$4,395.33	-0.85%
Unmetered	$67.00	-$0.01	$0.00	$0.00	$0.00	$0.00	-$0.01	-0.01%
Sentinel Lights	$17.34	$0.02	$0.00	$0.00	$0.00	$0.00	$0.02	0.12%
Street Lights	$11.82	-$0.07	$0.00	$0.00	$0.00	$0.00	-$0.07	-0.59%

* See 2012 IRM Rate Application EB-2011-0202
** Adjusted for Board Staff Interrogatory #2

8) Conclusion

Welland Hydro respectfully submits that the costs necessary to fulfill its obligations under the provincially mandated Smart Meter initiative have been prudently incurred in accordance with Board guidelines. Welland Hydro will be providing an updated cost allocation model in its 2013 Cost of Service Application which will include the new smart meters and deal with stranded conventional meters. As the Cost of Service application and an up-to-date Cost Allocation Model (with the corresponding Revenue to Cost Ratios) is only one year away, Welland Hydro is requesting the Board to approve the uniform Smart Meter Rate Riders at this time. Welland Hydro believes that the uniform proposed riders are just and reasonable, the associated bill impacts (combined rate applications) are minimal; and it is appropriate that the Board approve these proposed riders effective May 1, 2012.

Deloitte

Deloitte & Touche LLP
1005 Skyview Drive
Suite 201
Burlington ON L7P 5B1
Canada

Tel: 905-315-6770
Fax: 905-315-6700
www.deloitte.ca

Independent Auditor's Report

To the Ontario Energy Board

At the request of Welland Hydro-Electric Systems Corp., we have audited the Capital Costs and OM&A expenses for the period from January 1, 2011 to October 31, 2011 included in the accompanying Smart Meter Capital Cost and Operational Expense Data (the "financial information"). This financial information has been prepared in accordance with the accounting guidelines established by the Ontario Energy Board.

Management's Responsibility for the Financial Information

Management is responsible for the preparation and fair presentation of the financial information in accordance with guidelines established by the OEB, and for such internal control as management determines is necessary to enable the preparation of the financial information that is free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on the financial information based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance whether the financial information is free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial information. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial information, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial information in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial information.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

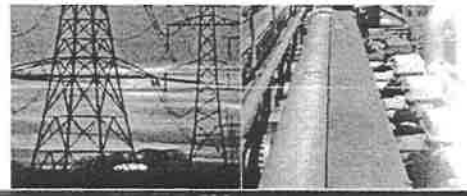
In our opinion, the financial information presents fairly, in all material respects, the capital costs and OM&A expenses for the period from January 1, 2011 to October 31, 2011 in accordance with the accounting guidelines established by the Ontario Energy Board.

Basis of Accounting and Restriction on Distribution

Without modifying our opinion, we draw attention that the financial information has been prepared in accordance with the accounting guidelines established by the Ontario Energy Board. As a result, the financial information may not be suitable for another purpose. Our report is intended solely for Welland Hydro-Electric Systems Corp. and the Ontario Energy Board and should not be distributed to parties other than Welland Hydro-Electric Systems Corp. or the Ontario Energy Board.

Deloitte & Touche LLP

Chartered Accountants
Licensed Public Accountants
November 24, 2011



Ontario Energy Board
Smart Meter Model

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

	2006	2007	2008	2009	2010	2011	2012 and later	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
Actual/Planned number of Smart Meters installed during the Calendar Year								
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								0
Other (please identify)								0
Total Number of Smart Meters installed or planned to be installed	0	0	0	0	0	0	0	0

1 Capital Costs

1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)

	Asset Type (Asset type must be selected to enable calculations)	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 and later Forecast	Total
1.1.1 Smart Meters *(may include new meters and modules, etc.)*	Smart Meter				1,848,765	41,519	474,483		$ 2,364,768
1.1.2 Installation Costs *(may include socket kits, labour, vehicle, benefits, etc.)*	Smart Meter				323,858	12,953	7,904		$ 344,715
1.1.3a Workforce Automation Hardware *(may include fieldwork handhelds, barcode hardware, etc.)*	Computer Hardware				27,297	0	14,440		$ 41,737
1.1.3b Workforce Automation Software *(may include fieldwork handhelds, barcode hardware, etc.)*	Computer Software				4,560	0	15,800		$ 20,360
Total Advanced Metering Communications Devices (AMCD)		$ -	$ -	$ -	$ 2,204,481	$ 54,472	$ 512,627	$ -	$ 2,771,580

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	Total
1.2.1 Collectors	Tools & Equipment				198,069	0	0		$ 198,069
1.2.2 Repeaters *(may include radio licence, etc.)*					0	0	0		$ -
1.2.3 Installation *(may include meter seals and rings, collector computer hardware, etc.)*	Other Equipment				2,130	0	0		$ 2,130
Total Advanced Metering Regional Collector (AMRC) (includes LAN)		$ -	$ -	$ -	$ 200,199	$ -	$ -	$ -	$ 200,199

1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.3.1 Computer Hardware									$ -
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)		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

1.4 WIDE AREA NETWORK (WAN)	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.4.1 Activiation 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	
1.5.1 Customer Equipment *(including repair of damaged equipment)*	Smart Meter				4,642	60	0		$ 4,702
1.5.2 AMI Interface to CIS	Computer Software				0	7,500	0		$ 7,500
1.5.3 Professional Fees									$ -
1.5.4 Integration									$ -
1.5.5 Program Management	Smart Meter				0	16,653	6,056		$ 22,709
1.5.6 Other AMI Capital									$ -
Total Other AMI Capital Costs Related to Minimum Functionality		$ -	$ -	$ -	$ 4,642	$ 24,213	$ 6,056	$ -	$ 34,911
Total Capital Costs Related to Minimum Functionality		$ -	$ -	$ -	$ 2,409,322	$ 78,685	$ 518,683	$ -	$ 3,006,690

1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY *(Please provide a descriptive title and identify nature of beyond minimum functionality costs)*	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Computer Software								$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software								$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.	Computer Hardware								$ -
Total Capital Costs Beyond Minimum Functionality		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Smart Meter Capital Costs		$ -	$ -	$ -	$ 2,409,322	$ 78,685	$ 518,683	$ -	$ 3,006,690

2 OM&A Expenses

2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
2.1.1 Maintenance *(may include meter reverification costs, etc.)*				1,971	40	0		$ 2,011
2.1.2 Other *(please specify)*								$ -
Total Incremental AMCD OM&A Costs	$ -	$ -	$ -	$ 1,971	$ 40	$ -	$ -	$ 2,011
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)								
2.2.1 Maintenance								$ -
2.2.2 Other *(please specify)*								$ -
Total Incremental AMRC OM&A Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)								
2.3.1 Hardware Maintenance *(may include server support, etc.)*								$ -
2.3.2 Software Maintenance *(may include maintenance support, etc.)*				8,384	47,476	19,929		$ 75,789
2.3.2 Other *(please specify)*								$ -
Total Incremental AMCC OM&A Costs	$ -	$ -	$ -	$ 8,384	$ 47,476	$ 19,929	$ -	$ 75,789
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	0	0	0	0	0	0		$ -
2.5.2 Customer Communication (may include project communication, etc.)	0	0	0	30,670	0	3,175		$ 33,845
2.5.3 Program Management	0	0	0	0	0	14,877		$ 14,877
2.5.4 Change Management (may include training, etc.)	0	0	812	15,746	976	0		$ 17,534
2.5.5 Administration Costs	0	14,070	10,918	38,612	14,427	0		$ 78,027
2.5.6 Other AMI Expenses *(please specify)*	0	0	0	0	672	23,521		$ 24,193
Total Other AMI OM&A Costs Related to Minimum Functionality	$ -	$ 14,070	$ 11,730	$ 85,028	$ 16,075	$ 41,573	$ -	$ 168,476
TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	$ -	$ 14,070	$ 11,730	$ 95,383	$ 63,591	$ 61,502	$ -	$ 246,276
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.								$ -
Total OM&A Costs Beyond Minimum Functionality	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Smart Meter OM&A Costs	$ -	$ 14,070	$ 11,730	$ 95,383	$ 63,591	$ 61,502	$ -	$ 246,276

3 Aggregate Smart Meter Costs by Category

3.1	Capital									
3.1.1	Smart Meter	$ -	$ -	$ -	$ 2,177,266	$ 71,185	$ 488,443	$ -	$ 2,736,894	
3.1.2	Computer Hardware	$ -	$ -	$ -	$ 27,297	$ -	$ 14,440	$ -	$ 41,737	
3.1.3	Computer Software	$ -	$ -	$ -	$ 4,560	$ 7,500	$ 15,800	$ -	$ 27,860	
3.1.4	Tools & Equipment	$ -	$ -	$ -	$ 198,069	$ -	$ -	$ -	$ 198,069	
3.1.5	Other Equipment	$ -	$ -	$ -	$ 2,130	$ -	$ -	$ -	$ 2,130	
3.1.6	Applications Software	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
3.1.7	**Total Capital Costs**	**$ -**	**$ -**	**$ -**	**$ 2,409,322**	**$ 78,685**	**$ 518,683**	**$ -**	**$ 3,006,690**	
3.2	OM&A Costs									
3.2.1	**Total OM&A Costs**	**$ -**	**$ 14,070**	**$ 11,730**	**$ 95,383**	**$ 63,591**	**$ 61,502**	**$ -**	**$ 246,276**	

Exhibit B Pg 1053

PRP International, Inc.

Fairness Advisory Services

June 30, 2009

RECEIVED
JUL 10 2009

Mr. Ross Peever
President and CEO
Welland Hydro Electric System Corporation
950 East Main Street, Box 280
Welland, ON L3B 5P6

Dear Mr. Peever:

Subject: Confirmation of the Fairness Commissioner
Welland Hydro Electric System Corporation
– KTI/Sensus Limited Contract Award
Advanced Metering Infrastructure RFP, August 2007
London Hydro & Consortium of LDCs Smartmetering Project

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

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

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

Yours truly,

Peter Sorensen

Peter Sorensen
President

Attachment: Negotiations and Contract Phase Backgrounder

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

BACKGROUNDER TO FAIRNESS CONFIRMATION / ATTESTATION
Advanced Metering Infrastructure Procurement

TO WHOM IT MAY CONCERN:

Background:

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

Fairness Coverage Objective:

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

---

[1] 7.5.14 Final Contract Negotiations

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

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

BACKGROUNDER TO FAIRNESS CONFIRMATION / ATTESTATION
Advanced Metering Infrastructure Procurement

Fairness Protocols:

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

Form of Fairness Confirmation / Attestation[2]:

1. A confirmation of fair negotiations and contract award would be issued if the LDC's #1 ranked Proponent was awarded a contract; the original Attestation Letter remains in effect.

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

Local Distribution Company:

Welland Hydro Electric System Corporation

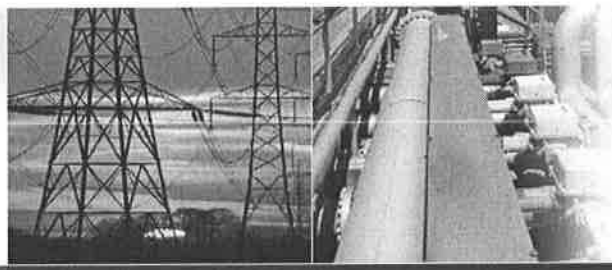
Mr. Ross Peever
President and CEO
Welland Hydro Electric System Corporation
950 East Main Street, Box 280
Welland, ON L3B 5P6

---

[2] Conditions on the rendering of this Confirmation / Attestation.

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

V 2.17



Ontario Energy Board
Smart Meter Model

Choose Your Utility:
Waterloo North Hydro Inc.
Welland Hydro-Electric System Corp.

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

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

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

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Forecast	2012 and later Forecast	Total
Residential				19,409	302	465		20176
General Service < 50 kW				819	153	744		1716
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	20228	455	1209	0	21892
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	92.40%	94.48%	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	20228	455	1209	0	21892

1 Capital Costs

1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)

	Asset Type (Asset type must be selected to enable calculations)	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Forecast	2012 and later Forecast	Total
1.1.1 Smart Meters *(may include new meters and modules, etc.)*	Smart Meter				1,848,766	41,519	474,483		$ 2,364,768
1.1.2 Installation Costs *(may include socket kits, labour, vehicle, benefits, etc.)*	Smart Meter				323,858	12,953	22,954		$ 359,765
1.1.3a Workforce Automation Hardware *(may include fieldwork handhelds, barcode hardware, etc.)*	Computer Hardware				27,297	0	30,336		$ 57,633
1.1.3b Workforce Automation Software *(may include fieldwork handhelds, barcode hardware, etc.)*	Computer Software				4,560	0	15,800		$ 20,360
Total Advanced Metering Communications Devices (AMCD)		$ -	$ -	$ -	$ 2,204,481	$ 54,472	$ 543,573	$ -	$ 2,802,526

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 Forecast	2012 and later Forecast	Total
1.2.1 Collectors	Tools & Equipment				198,069	0	0		$ 198,069
1.2.2 Repeaters *(may include radio licence, etc.)*					0	0	0		$ -
1.2.3 Installation *(may include meter seals and rings, collector computer hardware, etc.)*	Other Equipment				2,130	0	0		$ 2,130
Total Advanced Metering Regional Collector (AMRC) (includes LAN)		$ -	$ -	$ -	$ 200,199	$ -	$ -	$ -	$ 200,199

1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
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)		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

1.4 WIDE AREA NETWORK (WAN)	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
1.4.1 Activiation 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	Forecast	Forecast	
1.5.1 Customer Equipment *(including repair of damaged equipment)*	Smart Meter				4,642	60	0		$ 4,702
1.5.2 AMI Interface to CIS	Computer Software				0	7,500	0		$ 7,500
1.5.3 Professional Fees									$ -
1.5.4 Integration									$ -
1.5.5 Program Management	Smart Meter				0	16,653	6,056		$ 22,709
1.5.6 Other AMI Capital									$ -
Total Other AMI Capital Costs Related to Minimum Functionality		$ -	$ -	$ -	$ 4,642	$ 24,213	$ 6,056	$ -	$ 34,911
Total Capital Costs Related to Minimum Functionality		$ -	$ -	$ -	$ 2,409,322	$ 78,685	$ 549,629	$ -	$ 3,037,636

1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY *(Please provide a descriptive title and identify nature of beyond minimum functionality costs)*	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
1.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06	Computer Software								$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software								$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.	Computer Hardware								$ -
Total Capital Costs Beyond Minimum Functionality		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Smart Meter Capital Costs		$ -	$ -	$ -	$ 2,409,322	$ 78,685	$ 549,629	$ -	$ 3,037,636

2 OM&A Expenses

2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
2.1.1 Maintenance *(may include meter reverification costs, etc.)*				1,971	40	0	0	$ 2,011
2.1.2 Other *(please specify)*								$ -
Total Incremental AMCD OM&A Costs	$ -	$ -	$ -	$ 1,971	$ 40	$ -	$ -	$ 2,011
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)								
2.2.1 Maintenance								$ -
2.2.2 Other *(please specify)*								$ -
Total Incremental AMRC OM&A Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)								
2.3.1 Hardware Maintenance *(may include server support, etc.)*								$ -
2.3.2 Software Maintenance *(may include maintenance support, etc.)*				8,384	47,476	29,189	46,884	$ 131,933
2.3.2 Other *(please specify)*								$ -
Total Incremental AMCC OM&A Costs	$ -	$ -	$ -	$ 8,384	$ 47,476	$ 29,189	$ 46,884	$ 131,933
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	0	0	0	0	0	24,443	36,961	$ 61,404
2.5.2 Customer Communication (may include project communication, etc.)	0	0	0	30,670	0	46,123	6,000	$ 82,793
2.5.3 Program Management	0	0	0	0	0	27,099	49,148	$ 76,247
2.5.4 Change Management (may include training, etc.)	0	0	812	15,746	976	0	0	$ 17,534
2.5.5 Administration Costs	0	14,070	10,918	38,612	14,427	0	0	$ 78,027
2.5.6 Other AMI Expenses *(please specify)*	0	0	0	0	672	32,414	37,782	$ 70,868
Total Other AMI OM&A Costs Related to Minimum Functionality	$ -	$ 14,070	$ 11,730	$ 85,028	$ 16,075	$ 130,079	$ 129,891	$ 386,873
TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	$ -	$ 14,070	$ 11,730	$ 95,383	$ 63,591	$ 159,268	$ 176,775	$ 520,817
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	Forecast		
2.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06								$ -
2.6.2 Costs for deployment of smart meters to customers other than residential and small general service								$ -
2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.								$ -
Total OM&A Costs Beyond Minimum Functionality	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Smart Meter OM&A Costs	$ -	$ 14,070	$ 11,730	$ 95,383	$ 63,591	$ 159,268	$ 176,775	$ 520,817

3 Aggregate Smart Meter Costs by Category

3.1	Capital									
3.1.1	Smart Meter	$ -	$ -	$ -	$ 2,177,266	$ 71,185	$ 503,493	$ -	$ 2,751,944	
3.1.2	Computer Hardware	$ -	$ -	$ -	$ 27,297	$ -	$ 30,336	$ -	$ 57,633	
3.1.3	Computer Software	$ -	$ -	$ -	$ 4,560	$ 7,500	$ 15,800	$ -	$ 27,860	
3.1.4	Tools & Equipment	$ -	$ -	$ -	$ 198,069	$ -	$ -	$ -	$ 198,069	
3.1.5	Other Equipment	$ -	$ -	$ -	$ 2,130	$ -	$ -	$ -	$ 2,130	
3.1.6	Applications Software	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
3.1.7	Total Capital Costs	$ -	$ -	$ -	$ 2,409,322	$ 78,685	$ 549,629	$ -	$ 3,037,636	
3.2	OM&A Costs									
3.2.1	Total OM&A Costs	$ -	$ 14,070	$ 11,730	$ 95,383	$ 63,591	$ 159,268	$ 176,775	$ 520,817	

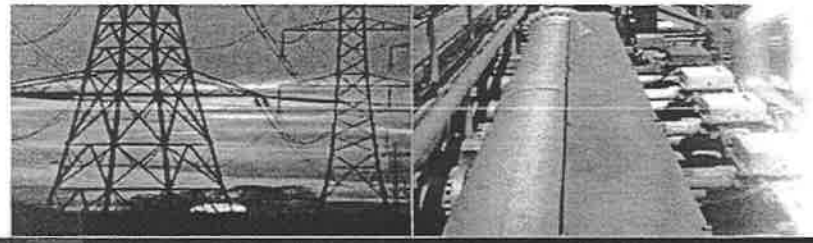
Ontario Energy Board
Smart Meter Model

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				4.0%	4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	52.7%	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				1.33%	1.33%	1.33%	1.33%
Long-term Debt Rate (actual/embedded/deemed)[2]	6.25%	6.25%	6.25%	7.62%	7.62%	7.62%	7.62%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	8.01%	8.01%	8.01%	8.01%
Return on Preferred Shares							
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%	29.02%	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				47	47	47	47
Smart Meters - CCA Rate				8%	8%	8%	8%
Computer Equipment - CCA Class				52	52	52	52
Computer Equipment - CCA Rate				100%	100%	100%	100%
General Equipment - CCA Class				8	8	8	8
General Equipment - CCA Rate				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 striaght line basis and has the "half-year" rule applied.*



Ontario Energy Board
Smart Meter Model

Welland Hydro-Electric System Corp.

	2006	2007	2008	2009	2010	2011	2012 and later
Net Fixed Assets - Smart Meters							
Gross Book Value							
Opening Balance		$ -	$ -	$ -	$ 2,177,266	$ 2,248,451	$ 2,751,944
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ 2,177,266	$ 71,185	$ 503,493	$ -
Retirements/Removals (if applicable)							
Closing Balance	$ -	$ -	$ -	$ 2,177,266	$ 2,248,451	$ 2,751,944	$ 2,751,944
Accumulated Depreciation							
Opening Balance		$ -	$ -	$ -	-$ 72,576	-$ 220,099	-$ 386,779
Amortization expense during year	$ -	$ -	$ -	-$ 72,576	-$ 147,524	-$ 166,680	-$ 183,463
Retirements/Removals (if applicable)							
Closing Balance	$ -	$ -	$ -	-$ 72,576	-$ 220,099	-$ 386,779	-$ 570,242
Net Book Value							
Opening Balance	$ -	$ -	$ -	$ -	$ 2,104,690	$ 2,028,352	$ 2,365,165
Closing Balance	$ -	$ -	$ -	$ 2,104,690	$ 2,028,352	$ 2,365,165	$ 2,181,702
Average Net Book Value	$ -	$ -	$ -	$ 1,052,345	$ 2,066,521	$ 2,196,758	$ 2,273,433
Net Fixed Assets - Computer Hardware							
Gross Book Value							
Opening Balance		$ -	$ -	$ -	$ 27,297	$ 27,297	$ 57,633
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ 27,297	$ -	$ 30,336	$ -
Retirements/Removals (if applicable)							
Closing Balance	$ -	$ -	$ -	$ 27,297	$ 27,297	$ 57,633	$ 57,633
Accumulated Depreciation							
Opening Balance	$ -	$ -	$ -	$ -	-$ 2,730	-$ 8,189	-$ 16,682
Amortization expense during year	$ -	$ -	$ -	-$ 2,730	-$ 5,459	-$ 8,493	-$ 11,527
Retirements/Removals (if applicable)							
Closing Balance	$ -	$ -	$ -	-$ 2,730	-$ 8,189	-$ 16,682	-$ 28,209
Net Book Value							
Opening Balance	$ -	$ -	$ -	$ -	$ 24,567	$ 19,108	$ 40,951
Closing Balance	$ -	$ -	$ -	$ 24,567	$ 19,108	$ 40,951	$ 29,424
Average Net Book Value	$ -	$ -	$ -	$ 12,284	$ 21,838	$ 30,029	$ 35,188
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)	$ -	$ -	$ -	$ 4,560	$ 7,500	$ 15,800	$ -

Retirements/Removals (if applicable)							
Closing Balance	$ -	$ -	$ -	$ 4,560	$ 12,060	$ 27,860	$ 27,860
Accumulated Depreciation							
Opening Balance	$ -	$ -	$ -	$ -	-$ 456	-$ 2,118	-$ 6,110
Amortization expense during year	$ -	$ -	$ -	-$ 456	-$ 1,662	-$ 3,992	-$ 5,572
Retirements/Removals (if applicable)							
Closing Balance	$ -	$ -	$ -	-$ 456	-$ 2,118	-$ 6,110	-$ 11,682
Net Book Value							
Opening Balance	$ -	$ -	$ -	$ -	$ 4,104	$ 9,942	$ 21,750
Closing Balance	$ -	$ -	$ -	$ 4,104	$ 9,942	$ 21,750	$ 16,178
Average Net Book Value	$ -	$ -	$ -	$ 2,052	$ 7,023	$ 15,846	$ 18,964
Net Fixed Assets - Tools and Equipment							
Gross Book Value							
Opening Balance		$ -	$ -	$ -	$ 198,069	$ 198,069	$ 198,069
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ 198,069	$ -	$ -	$ -
Retirements/Removals (if applicable)							
Closing Balance	$ -	$ -	$ -	$ 198,069	$ 198,069	$ 198,069	$ 198,069
Accumulated Depreciation							
Opening Balance	$ -	$ -	$ -	$ -	-$ 9,903	-$ 29,710	-$ 49,517
Amortization expense during year	$ -	$ -	$ -	-$ 9,903	-$ 19,807	-$ 19,807	-$ 19,807
Retirements/Removals (if applicable)							
Closing Balance	$ -	$ -	$ -	-$ 9,903	-$ 29,710	-$ 49,517	-$ 69,324
Net Book Value							
Opening Balance	$ -	$ -	$ -	$ -	$ 188,166	$ 168,359	$ 148,552
Closing Balance	$ -	$ -	$ -	$ 188,166	$ 168,359	$ 148,552	$ 128,745
Average Net Book Value	$ -	$ -	$ -	$ 94,083	$ 178,262	$ 158,455	$ 138,648
Net Fixed Assets - Other Equipment							
Gross Book Value							
Opening Balance		$ -	$ -	$ -	$ 2,130	$ 2,130	$ 2,130
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ 2,130	$ -	$ -	$ -
Retirements/Removals (if applicable)							
Closing Balance	$ -	$ -	$ -	$ 2,130	$ 2,130	$ 2,130	$ 2,130
Accumulated Depreciation							
Opening Balance	$ -	$ -	$ -	$ -	-$ 43	-$ 128	-$ 213
Amortization expense during year	$ -	$ -	$ -	-$ 43	-$ 85	-$ 85	-$ 85
Retirements/Removals (if applicable)							
Closing Balance	$ -	$ -	$ -	-$ 43	-$ 128	-$ 213	-$ 298
Net Book Value							
Opening Balance	$ -	$ -	$ -	$ -	$ 2,087	$ 2,002	$ 1,917
Closing Balance	$ -	$ -	$ -	$ 2,087	$ 2,002	$ 1,917	$ 1,832
Average Net Book Value	$ -	$ -	$ -	$ 1,044	$ 2,045	$ 1,960	$ 1,874

Ontario Energy Board
Smart Meter Model

Welland Hydro-Electric System Corp.

	2006	2007	2008	2009	2010	2011	2012 and Later
Average Net Fixed Asset Values (from Sheet 4)							
Smart Meters	$ -	$ -	$ -	$ 1,052,345	$ 2,066,521	$ 2,196,758	$ 2,273,433
Computer Hardware	$ -	$ -	$ -	$ 12,284	$ 21,838	$ 30,029	$ 35,188
Computer Software	$ -	$ -	$ -	$ 2,052	$ 7,023	$ 15,846	$ 18,964
Tools & Equipment	$ -	$ -	$ -	$ 94,083	$ 178,262	$ 158,455	$ 138,648
Other Equipment	$ -	$ -	$ -	$ 1,044	$ 2,045	$ 1,960	$ 1,874
Total Net Fixed Assets	$ -	$ -	$ -	$ 1,161,807	$ 2,275,689	$ 2,403,048	$ 2,468,108
Working Capital							
Operating Expenses (from Sheet 2)	$ -	$ 14,070	$ 11,730	$ 95,383	$ 63,591	$ 159,268	$ 176,775
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	$ -	$ 2,111	$ 1,760	$ 14,307	$ 9,539	$ 23,890	$ 26,516
Incremental Smart Meter Rate Base	$ -	$ 2,111	$ 1,760	$ 1,176,115	$ 2,285,227	$ 2,426,939	$ 2,494,624
Return on Rate Base							
Capital Structure							
Deemed Short Term Debt	$ -	$ -	$ -	$ 47,045	$ 91,409	$ 97,078	$ 99,785
Deemed Long Term Debt	$ -	$ 1,055	$ 938	$ 619,813	$ 1,279,727	$ 1,359,086	$ 1,396,989
Equity	$ -	$ 1,055	$ 822	$ 509,258	$ 914,091	$ 970,775	$ 997,850
Preferred Shares	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Capitalization	$ -	$ 2,111	$ 1,760	$ 1,176,115	$ 2,285,227	$ 2,426,939	$ 2,494,624
Return on							
Deemed Short Term Debt	$ -	$ -	$ -	$ 626	$ 1,216	$ 1,291	$ 1,327
Deemed Long Term Debt	$ -	$ 66	$ 59	$ 47,230	$ 97,515	$ 103,562	$ 106,451
Equity	$ -	$ 95	$ 74	$ 40,792	$ 73,219	$ 77,759	$ 79,928
Preferred Shares	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Return on Capital	$ -	$ 161	$ 133	$ 88,647	$ 171,950	$ 182,613	$ 187,705
Operating Expenses	$ -	$ 14,070	$ 11,730	$ 95,383	$ 63,591	$ 159,268	$ 176,775
Amortization Expenses (from Sheet 4)							
Smart Meters	$ -	$ -	$ -	$ 72,576	$ 147,524	$ 166,680	$ 183,463
Computer Hardware	$ -	$ -	$ -	$ 2,730	$ 5,459	$ 8,493	$ 11,527
Computer Software	$ -	$ -	$ -	$ 456	$ 1,662	$ 3,992	$ 5,572
Tools & Equipment	$ -	$ -	$ -	$ 9,903	$ 19,807	$ 19,807	$ 19,807
Other Equipment	$ -	$ -	$ -	$ 43	$ 85	$ 85	$ 85
Total Amortization Expense in Year	$ -	$ -	$ -	$ 85,707	$ 174,537	$ 199,057	$ 220,454
Incremental Revenue Requirement before Taxes/PILs	$ -	$ 14,231	$ 11,863	$ 269,737	$ 410,078	$ 540,937	$ 584,934
Calculation of Taxable Income							
Incremental Operating Expenses	$ -	$ 14,070	$ 11,730	$ 95,383	$ 63,591	$ 159,268	$ 176,775
Amortization Expense	$ -	$ -	$ -	$ 85,707	$ 174,537	$ 199,057	$ 220,454
Interest Expense	$ -	$ 66	$ 59	$ 47,855	$ 98,731	$ 104,853	$ 107,778
Net Income for Taxes/PILs	$ -	$ 95	$ 74	$ 40,792	$ 73,219	$ 77,759	$ 79,928
Grossed-up Taxes/PILs (from Sheet 7)	$ -	$ 53.70	$ 37.25	$ 6,642.66	$ 10,008.19	$ 13,350.48	$ 20,292.36
Revenue Requirement, including Grossed-up Taxes/PILs	$ -	$ 14,285	$ 11,900	$ 276,380	$ 420,086	$ 554,288	$ 605,226

Ontario Energy Board
Smart Meter Model

Welland Hydro-Electric System Corp.

For PILs Calculation

UCC - Smart Meters

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Forecast	2012 and later Forecast
Opening UCC	$ -	$ -	$ -	$ -	$ 2,090,175.36	$ 1,991,298.93	$ 2,315,348.30
Capital Additions	$ -	$ -	$ -	$ 2,177,266.00	$ 71,185.00	$ 503,493.00	$ -
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	$ -	$ -	$ -	$ 2,177,266.00	$ 2,161,360.36	$ 2,494,791.93	$ 2,315,348.30
Half Year Rule (1/2 Additions - Disposals)	$ -	$ -	$ -	$ 1,088,633.00	$ 35,592.50	$ 251,746.50	$ -
Reduced UCC	$ -	$ -	$ -	$ 1,088,633.00	$ 2,125,767.86	$ 2,243,045.43	$ 2,315,348.30
CCA Rate Class	0	0	0	47	47	47	47
CCA Rate	0%	0%	0%	8%	8%	8%	8%
CCA	$ -	$ -	$ -	$ 87,090.64	$ 170,061.43	$ 179,443.63	$ 185,227.86
Closing UCC	$ -	$ -	$ -	$ 2,090,175.36	$ 1,991,298.93	$ 2,315,348.30	$ 2,130,120.43

UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Forecast	2012 and later Forecast
Opening UCC	$ -	$ -	$ -	$ -	$ 15,928.50	$ 3,750.00	$ 23,068.00
Capital Additions Computer Hardware	$ -	$ -	$ -	$ 27,297.00	$ -	$ 30,336.00	$ -
Capital Additions Computer Software	$ -	$ -	$ -	$ 4,560.00	$ 7,500.00	$ 15,800.00	$ -
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	$ -	$ -	$ -	$ 31,857.00	$ 23,428.50	$ 49,886.00	$ 23,068.00
Half Year Rule (1/2 Additions - Disposals)	$ -	$ -	$ -	$ 15,928.50	$ 3,750.00	$ 23,068.00	$ -
Reduced UCC	$ -	$ -	$ -	$ 15,928.50	$ 19,678.50	$ 26,818.00	$ 23,068.00
CCA Rate Class	0	0	0	52	52	52	52
CCA Rate	0%	0%	0%	100%	100%	100%	100%
CCA	$ -	$ -	$ -	$ 15,928.50	$ 19,678.50	$ 26,818.00	$ 23,068.00
Closing UCC	$ -	$ -	$ -	$ 15,928.50	$ 3,750.00	$ 23,068.00	$ -

UCC - General Equipment

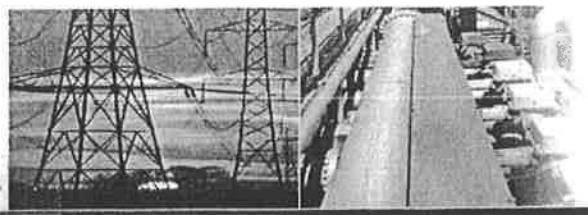
	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Forecast	2012 and later Forecast
Opening UCC	$ -	$ -	$ -	$ -	$ 180,179.10	$ 144,143.28	$ 115,314.62
Capital Additions Tools & Equipment	$ -	$ -	$ -	$ 198,069.00	$ -	$ -	$ -
Capital Additions Other Equipment	$ -	$ -	$ -	$ 2,130.00	$ -	$ -	$ -
Retirements/Removals (if applicable)							
UCC Before Half Year Rule	$ -	$ -	$ -	$ 200,199.00	$ 180,179.10	$ 144,143.28	$ 115,314.62
Half Year Rule (1/2 Additions - Disposals)	$ -	$ -	$ -	$ 100,099.50	$ -	$ -	$ -
Reduced UCC	$ -	$ -	$ -	$ 100,099.50	$ 180,179.10	$ 144,143.28	$ 115,314.62
CCA Rate Class	0	0	0	8	8	8	8
CCA Rate	0%	0%	0%	20%	20%	20%	20%
CCA	$ -	$ -	$ -	$ 20,019.90	$ 36,035.82	$ 28,828.66	$ 23,062.92
Closing UCC	$ -	$ -	$ -	$ 180,179.10	$ 144,143.28	$ 115,314.62	$ 92,251.70

Ontario Energy Board
Smart Meter Model

Welland Hydro-Electric System Corp.

PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Forecast	2012 and later Forecast
INCOME TAX							
Net Income	$ -	$ 94.97	$ 73.95	$ 40,791.54	$ 73,218.68	$ 77,759.11	$ 79,927.75
Amortization	$ -	$ -	$ -	$ 85,707.28	$ 174,537.40	$ 199,056.93	$ 220,453.63
CCA - Smart Meters	$ -	$ -	$ -	-$ 87,090.64	-$ 170,061.43	-$ 179,443.63	-$ 185,227.86
CCA - Computers	$ -	$ -	$ -	-$ 15,928.50	-$ 19,678.50	-$ 26,818.00	-$ 23,068.00
CCA - Applications Software	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CCA - Other Equipment	$ -	$ -	$ -	-$ 20,019.90	-$ 36,035.82	-$ 28,828.66	-$ 23,062.92
Change in taxable income	$ -	$ 94.97	$ 73.95	$ 3,459.79	$ 21,980.33	$ 41,725.75	$ 69,022.59
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	$ 10,114.32	$ 15,681.93
ONTARIO CAPITAL TAX							
Smart Meters	$ -	$ -	$ -	$ 2,104,690.47	$ 2,028,351.57	$ 2,365,164.73	$ 2,181,701.80
Computer Hardware	$ -	$ -	$ -	$ 24,567.30	$ 19,107.90	$ 40,950.90	$ 29,424.30
Computer Software (Including Application Software)	$ -	$ -	$ -	$ 4,104.00	$ 9,942.00	$ 21,750.00	$ 16,178.00
Tools & Equipment	$ -	$ -	$ -	$ 188,165.55	$ 168,358.65	$ 148,551.75	$ 128,744.85
Other Equipment	$ -	$ -	$ -	$ 2,087.40	$ 2,002.20	$ 1,917.00	$ 1,831.80
Rate Base	$ -	$ -	$ -	$ 2,323,614.72	$ 2,227,762.32	$ 2,578,334.38	$ 2,357,880.75
Less: Exemption							
Deemed Taxable Capital	$ -	$ -	$ -	$ 2,323,614.72	$ 2,227,762.32	$ 2,578,334.38	$ 2,357,880.75
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)	$ -	$ -	$ -	$ 5,228.13	$ 1,670.82	$ -	$ -
Change in Income Taxes Payable	$ -	$ 34.30	$ 24.77	$ 1,004.03	$ 6,044.59	$ 10,114.32	$ 15,681.93
Change in OCT	$ -	$ -	$ -	$ 5,228.13	$ 1,670.82	$ -	$ -
PILs	$ -	$ 34.30	$ 24.77	$ 6,232.16	$ 7,715.41	$ 10,114.32	$ 15,681.93
Gross Up PILs							
Tax Rate	36.12%	36.12%	33.50%	29.02%	27.50%	24.24%	22.72%
Change in Income Taxes Payable	$ -	$ 53.70	$ 37.25	$ 1,414.53	$ 8,337.37	$ 13,350.48	$ 20,292.36
Change in OCT	$ -	$ -	$ -	$ 5,228.13	$ 1,670.82	$ -	$ -
PILs	$ -	$ 53.70	$ 37.25	$ 6,642.66	$ 10,008.19	$ 13,350.48	$ 20,292.36



Ontario Energy Board
Smart Meter Model

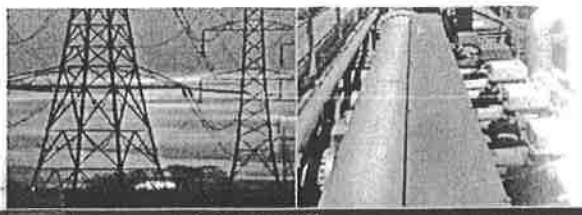
Welland Hydro-Electric System Corp.

This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP
2006 Q1		
2006 Q2	4.14%	4.68%
2006 Q3	4.59%	5.05%
2006 Q4	4.59%	4.72%
2007 Q1	4.59%	4.72%
2007 Q2	4.59%	4.72%
2007 Q3	4.59%	5.18%
2007 Q4	5.14%	5.18%
2008 Q1	5.14%	5.18%
2008 Q2	4.08%	5.18%
2008 Q3	3.35%	5.43%
2008 Q4	3.35%	5.43%
2009 Q1	2.45%	6.61%
2009 Q2	1.00%	6.61%
2009 Q3	0.55%	5.67%
2009 Q4	0.55%	4.66%
2010 Q1	0.55%	4.34%
2010 Q2	0.55%	4.34%
2010 Q3	0.89%	4.66%
2010 Q4	1.20%	4.01%
2011 Q1	1.47%	4.29%
2011 Q2	1.47%	4.29%
2011 Q3	1.47%	4.29%
2011 Q4	1.47%	4.29%
2012 Q1	1.47%	4.29%
2012 Q2	1.47%	4.29%
2012 Q3	1.47%	4.29%
2012 Q4	1.47%	4.29%

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-06	2006	Q1	$ -		0.00%	$ -	$ -		
Feb-06	2006	Q1	$ -		0.00%	$ -	$ -		
Mar-06	2006	Q1	$ -		0.00%	$ -	$ -		
Apr-06	2006	Q2	$ -		4.14%	$ -	$ -		
May-06	2006	Q2	$ -		4.14%	$ -	$ -		$ 0.27
Jun-06	2006	Q2	$ -	$ 5,703.00	4.14%	$ -	$ 5,703.00		$ 0.27
Jul-06	2006	Q3	$ 5,703.00	$ 6,199.00	4.59%	$ 21.81	$ 11,923.81		$ 0.27
Aug-06	2006	Q3	$ 11,902.00	$ 5,020.00	4.59%	$ 45.53	$ 16,967.53		$ 0.27
Sep-06	2006	Q3	$ 16,922.00	$ 6,621.00	4.59%	$ 64.73	$ 23,607.73		$ 0.27
Oct-06	2006	Q4	$ 23,543.00	$ 5,167.00	4.59%	$ 90.05	$ 28,800.05		$ 0.27
Nov-06	2006	Q4	$ 28,710.00	$ 6,648.00	4.59%	$ 109.82	$ 35,467.82		$ 0.27
Dec-06	2006	Q4	$ 35,358.00	$ 4,635.00	4.59%	$ 135.24	$ 40,028.24	$ 40,360.18	$ 0.27
Jan-07	2007	Q1	$ 39,893.00	$ 7,047.00	4.59%	$ 152.59	$ 47,092.59		$ 0.27
Feb-07	2007	Q1	$ 46,940.00	$ 4,914.00	4.59%	$ 179.55	$ 52,033.55		$ 0.27
Mar-07	2007	Q1	$ 51,854.00	$ 7,001.00	4.59%	$ 198.34	$ 59,053.34		$ 0.27
Apr-07	2007	Q2	$ 58,855.00	$ 4,653.00	4.59%	$ 225.12	$ 63,743.12		$ 0.27
May-07	2007	Q2	$ 63,518.00	$ 6,623.00	4.59%	$ 242.96	$ 70,383.96		$ 0.27
Jun-07	2007	Q2	$ 70,141.00	$ 5,562.00	4.59%	$ 268.29	$ 75,971.29		$ 0.27
Jul-07	2007	Q3	$ 75,703.00	$ 6,127.00	4.59%	$ 289.56	$ 82,119.56		$ 0.27
Aug-07	2007	Q3	$ 81,830.00	$ 4,753.00	4.59%	$ 313.00	$ 86,896.00		$ 0.27
Sep-07	2007	Q3	$ 86,583.00	$ 6,665.00	4.59%	$ 331.18	$ 93,579.18		$ 0.27
Oct-07	2007	Q4	$ 93,248.00	$ 5,038.00	5.14%	$ 399.41	$ 98,685.41		$ 0.27
Nov-07	2007	Q4	$ 98,286.00	$ 6,951.00	5.14%	$ 420.99	$ 105,657.99		$ 0.27
Dec-07	2007	Q4	$ 105,237.00	$ 4,755.00	5.14%	$ 450.77	$ 110,442.77	$ 73,570.76	$ 0.27
Jan-08	2008	Q1	$ 109,992.00	$ 7,167.00	5.14%	$ 471.13	$ 117,630.13		$ 0.27
Feb-08	2008	Q1	$ 117,159.00	$ 5,325.00	5.14%	$ 501.83	$ 122,985.83		$ 0.27
Mar-08	2008	Q1	$ 122,484.00	$ 6,053.00	5.14%	$ 524.64	$ 129,061.64		$ 0.27
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	$ 5,631.00	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	$ 5,085.00	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	$ 19,606.00	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	$ 521,656.00	$ 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	$ 719,488.00	$ 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	$ 45,762.00	1.47%	$ 1,207.93	$ 1,033,031.93		$ 2.11
Nov-11	2011	Q4	$ 1,031,824.00	$ 45,762.00	1.47%	$ 1,263.98	$ 1,078,849.98		$ 2.11
Dec-11	2011	Q4	$ 1,077,586.00	$ 45,762.00	1.47%	$ 1,320.04	$ 1,124,668.04	$ 534,797.77	$ 2.11



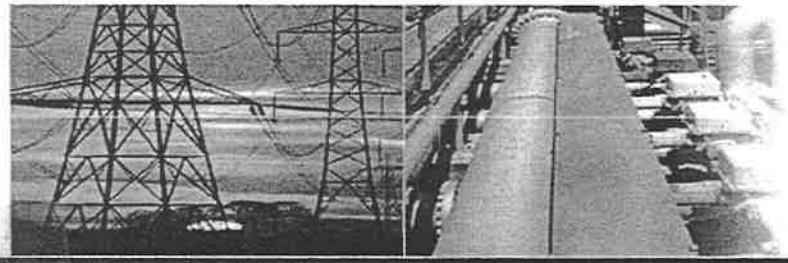
Ontario Energy Board
Smart Meter Model

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)
			Jan-12	2012	Q1	$ 1,123,348.00	$ 45,762.00	1.47%	$ 1,376.10	$ 1,170,486.10		$ 2.11
			Feb-12	2012	Q1	$ 1,169,110.00	$ 45,762.00	1.47%	$ 1,432.16	$ 1,216,304.16		$ 2.11
			Mar-12	2012	Q1	$ 1,214,872.00	$ 45,762.00	1.47%	$ 1,488.22	$ 1,262,122.22		$ 2.11
			Apr-12	2012	Q2	$ 1,260,634.00	$ 45,762.00	1.47%	$ 1,544.28	$ 1,307,940.28		$ 2.11
			May-12	2012	Q2	$ 1,306,396.00		1.47%	$ 1,600.34	$ 1,307,996.34		$ -
			Jun-12	2012	Q2	$ 1,306,396.00		1.47%	$ 1,600.34	$ 1,307,996.34		$ -
			Jul-12	2012	Q3	$ 1,306,396.00		1.47%	$ 1,600.34	$ 1,307,996.34		$ -
			Aug-12	2012	Q3	$ 1,306,396.00		1.47%	$ 1,600.34	$ 1,307,996.34		$ -
			Sep-12	2012	Q3	$ 1,306,396.00		1.47%	$ 1,600.34	$ 1,307,996.34		$ -
			Oct-12	2012	Q4	$ 1,306,396.00		1.47%	$ 1,600.34	$ 1,307,996.34		$ -
			Nov-12	2012	Q4	$ 1,306,396.00		1.47%	$ 1,600.34	$ 1,307,996.34		$ -
			Dec-12	2012	Q4	$ 1,306,396.00		1.47%	$ 1,600.34	$ 1,307,996.34	$ 201,691.48	$ -
			Total Funding Adder Revenues Collected				$ 1,306,396.00		$ 45,636.71	$ 1,352,032.71	$ 1,352,032.71	



Ontario Energy Board
Smart Meter Model

Welland Hydro-Electric System Corp.

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	$ 14,070.00	$ -	$ 14,070.00	$ 7,035.00	4.73%	$ 332.58
2008	$ 11,730.00	$ -	$ 25,800.00	$ 19,935.00	3.98%	$ 793.41
2009	$ 95,383.00	$ 85,707.28	$ 206,890.28	$ 116,345.14	1.14%	$ 1,323.43
2010	$ 63,591.00	$ 174,537.40	$ 445,018.68	$ 325,954.48	0.80%	$ 2,599.49
2011	$ 159,268.00	$ 199,056.93	$ 803,343.62	$ 624,181.15	1.47%	$ 9,175.46
2012	$ 176,775.00	$ 220,453.63	$ 1,200,572.25	$ 1,001,957.93	1.47%	$ 14,728.78
Cumulative Interest to 2011						$ 14,224.37
Cumulative Interest to 2012						$ 28,953.15

Ontario Energy Board
Smart Meter Model

Welland Hydro-Electric System Corp.

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)	
X	Smart Meter Disposition Rider (SMDR)	The SMDR is calculated based on costs to December 31, 2011
X	Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)	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.

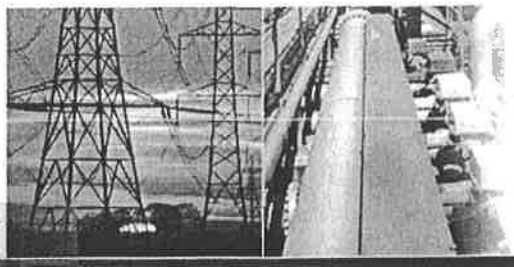
	2006	2007	2008	2009	2010	2011	2012 and later	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	$ -	$ 14,284.63	$ 11,899.82	$ 276,379.89	$ 420,086.22	$ 554,287.98	$ 605,226.46	$ 1,882,165.00
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B)	$ -	$ 332.58	$ 793.41	$ 1,323.43	$ 2,599.49	$ 9,175.46		$ 14,224.37
(Check one of the boxes below)								
	Sheet 8A (Interest calculated on monthly balances)							$ -
X	Sheet 8B (Interest calculated on average annual balances)	$ -	$ 332.58	$ 793.41	$ 1,323.43	$ 2,599.49	$ 9,175.46	$ 14,224.37
SMFA Revenues (from Sheet 8)	$ 39,893.00	$ 70,099.00	$ 70,693.00	$ 69,783.00	$ 350,296.00	$ 522,584.00	$ 183,048.00	$ 1,306,396.00
SMFA Interest (from Sheet 8)	$ 467.18	$ 3,471.76	$ 5,551.35	$ 2,290.90	$ 2,998.27	$ 12,213.77	$ 18,643.48	$ 45,636.71
Net Deferred Revenue Requirement	-$ 40,360.18	-$ 58,953.55	-$ 63,551.12	$ 205,629.42	$ 69,391.44	$ 28,665.67	$ 403,534.98	$ 544,356.66
Number of Metered Customers (average for 2012 test year)							21520	

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

Years for collection or refunding	1	
Deferred Incremental Revenue Requirement from 2006 to December 31, 2011 plus Interest on OM&A and Amortization	$ 1,291,162.90	
SMFA Revenues collected from 2006 to 2012 test year (inclusive) Plus Simple Interest on SMFA Revenues	$ 1,352,032.71	
Net Deferred Revenue Requirement	-$ 60,869.81	
SMDR May 1, 2012 to April 30, 2012	-$ 0.24	Match
Check: Forecasted SMDR Revenues	-$ 61,977.60	

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

Incremental Revenue Requirement for 2012	$ 605,226.46	
SMIRR	$ 2.34	Match
Check: Forecasted SMIRR Revenues	$ 604,281.60	



Ontario Energy Board
Smart Meter Model

Welland Hydro-Electric System Corp.

Funding and Cost Recovery Mechanisms

The following table provides a summary of the three mechanisms for smart meter funding and cost recovery that the Board has established and that can be calculated by this model. The Smart Meter Funding Adder ("SMFA") was described in Guideline G-2008-0002. The Smart Meter Disposition Rider ("SMDR") and Smart Meter Incremental Revenue Requirement Rate Rider ("SMIRR") were defined by the Board in the Decision for PowerStream Inc.'s application for Smart Meter disposition [EB-2010-0209], October 1, 2010.

Title	Acronym	Description
Smart Meter Funding Adder	SMFA	• Mechanism to provide funding before and during smart meter deployment and acts to smooth the rate increases due to smart meter implementation. • First implemented in rates for May 1, 2006. • Initially established at a level of about $0.26/month per metered customer for most distributors; some utilities have had unique SMFA rates due to initial Smart Meter Implementation Plans. Distributors could subsequently apply for a standard SMFA of $1.00 per metered customer per month or a utility-specific SMFA. • SMFA revenues are tracked in a sub-account of Account 1555. Upon disposition, the SMFA revenues and simple interest are used to offset the deferred historical revenue requirement of installed smart meters plus interest on the OM&A and amortization/depreciation expenses, with the variance recovered or refunded through the SMDR. • In many 2011 EDR applications, the Board capped the SMFA at $2.50/month per metered customer. Further, the Board indicated that the SMFA would cease by April 30, 2012.
Smart Meter Disposition Rider	SMDR	• The SMDR recovers, over a specified time period, the variance between: 1) the deferred revenue requirement for the installed smart meters up to the time of disposition and interest on OM&A and depreciation/amortization expenses; and 2) the SMFA revenues collected and associated interest. • The SMDR should be calculated as a fixed monthly charge. The capital (smart meter, AMI, systems hardware and software) and operating expenses are largely fixed costs and invariant to a customer's demand, and hence should be recovered largely through fixed charges. • In many cases the SMDR has been recovered on an equal basis from all metered customer classes, although more recent decisions have dealt with class-specific disposition riders. The distributor should determine and support its proposed allocation, based on principles of cost causality and practicality.
Smart Meter Incremental Revenue Requirement Rate Rider	SMIRR	• When smart meter disposition occurs in a stand-alone application, a SMIRR is calculated as the proxy for the incremental change in the distribution rates that would have occurred if the assets and operating expenses were incorporated into the rate base and the revenue requirement. • The SMIRR is calculated as the annualized revenue requirement for the test year for the capital and operating costs for smart meters. • The SMIRR should be calculated as a fixed monthly charge, similar to the SMDR. • The allocation for the SMIRR should generally be the same as for the SMDR. • The SMIRR ceases at the time of the utility's next cost of service application when smart meter capital and operating costs are explicitly incorporated into the rate base and revenue requirement.

Cost of Service Applications

The recovery of smart meter capital and operating costs is normally approved (or denied) following a review for prudence and disposition in a cost of service proceeding. A smart meter disposition rate rider (SMDR) is used to recover the residual revenue requirement that is made up of smart meter costs up to the time of disposition plus interest on OM&A and depreciation/amortization expenses, less amounts collected through the SMFA and associated interest. The approved gross book value and accumulated depreciation of installed smart meters are then added to rate base, and the test period operating expenses are added to OM&A. This ensures the recovery of the incremental revenue requirement on a going-forward basis through base rates. Further, smart meter capital and operating costs should be reflected in the cost allocation study to ensure an appropriate allocation of costs to the various customer classes.[1]

If a distributor seeks approval for costs related to 100% smart meter deployment, any capital and operating costs for smart meters that are installed beyond the (2012) test year (i.e. for new customers) should not be recorded in Accounts 1555 and 1556.

The Board considers that rates will be fully compensatory when smart meter costs are either incorporated into base rates or recovered by means of the SMIRR. When smart meters are installed for new customers, these customers will pay rates that reflect the recovery of smart meter costs. The costs of these additional smart meter costs should be reflected in normal capital and operating accounts, akin to other normal distribution assets and costs.

Stand-alone Applications

As per *Chapter 3 of the Filing Requirements for Transmission and Distribution Applications*, issued June 22, 2011, the Board expects those distributors that are scheduled to remain on IRM to file a stand-alone application with the Board seeking final approval for smart meter related costs. When rates are adjusted in a stand-alone application, there is no re-evaluation of rate base or of the revenue requirement for the purpose of setting distribution rates. Where the Board approves smart meter capital and operating costs outside of a cost of service proceeding, a SMDR is still required. In addition, a smart meter incremental revenue requirement rate rider (SMIRR) is established to recover the prospective annualized incremental revenue requirement for the approved smart meters, until the distributor's next cost of service application. The SMIRR continues until the effective date of the distributor's next cost of service rate order, at which time assets and costs are incorporated into the rate base and revenue requirement and recovered on a going-forward basis through base rates.

As in a cost of service application, when smart meter costs are approved for 100% deployment, capital and operating costs for smart meters on a going-forward basis are no longer recorded in Accounts 1555 and 1556; instead the costs are recorded in the applicable capital or operating expense account (e.g. Account 1860 – Meters for smart meter capital assets).

Evidence to be Filed in Support of Smart Meter Cost Recovery in a Cost of Service or Stand-Alone Application

The purpose of this model is to calculate a smart meter revenue requirement from a distributor's capital and OM&A costs, and to provide one methodology for the determination of associated riders and/or adders. In addition to filing this model, distributors must provide in any application for cost recovery detailed descriptions of all costs incurred. The onus is on the distributor to support its case, and the distributor should provide any additional information necessary to understand the distributor's costs in light of its circumstances. In considering the recovery of smart meter costs, the Board also expects that a distributor will provide evidence on any operational efficiencies and cost savings that result from smart meter implementation. As an example, meter reading expenses may be reduced with the activation of remote meter reading through the AMI network for residential and small general service customers.

When applying for the recovery of smart meter costs, a distributor should ensure that historical cost information has been audited including the smart meter-related deferral account balances up to the distributor's last Audited Financial Statements. A distributor may also include historical costs that are not audited and estimated costs, corresponding to a stub period or to a forecast for the test rate year. The Board expects that the majority (i.e. 90% or more) of costs for which the distributor is seeking recovery will be audited. In all cases, the Board expects that the distributor will document and explain any differences between unaudited or forecasted amounts and audited costs.

Costs Beyond Minimum Functionality

While authorized smart meter deployment must meet the requirements for minimum functionality, a distributor may incur costs that are beyond the "minimum functionality". To date, the Board has reviewed three types of costs that are "beyond minimum functionality":

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

B. Costs for deployment of smart meters to customers other than residential and small general service (i.e. Residential and GS < 50 kW customers); and

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

Costs beyond minimum functionality for which recovery is sought must be recorded in the Smart Meter Costs tab of the model in these three categories, and appropriate supporting evidence for each cost type must be provided in the application. Further comments on each of these cost types are provided below.

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

O.Reg. 425/06 specifies that costs that exceed minimum functionality may be approved by the Board for recovery. In deciding whether technical capabilities of installed smart meters or associated communications or other infrastructure that exceed minimum functionality are recoverable, the Board will consider the benefits of the added technical features and the prudence of these costs. Any distributor seeking recovery for these additional capabilities should provide documentation of the additional technical capabilities, the reasons for them and a detailed cost/benefit analysis.

Technical functionality beyond minimum functionality was dealt with by the Board with respect to Hydro One Networks' 2008 cost of service application, regarding the costs and benefits of super-capacitors in the smart meters and AMI collectors. In its Decision and Order on that application (EB-2007-0681), issued December 18, 2008, the Board approved the recovery of the incremental costs.

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

O.Reg. 425/06 defines smart meter deployment as pertaining to residential and small general service customers. The Functional Specification sets the required minimum level of functionality for the AMI to be "for residential and small general service consumers where the metering of demand is not required." As such, minimum functionality has been defined as customers in the residential and general service ("GS") < 50 kW classes.

While some customers in other metered customer classes (GS > 50 kW, Intermediate, Large Use) have interval meters that measure peak demand in a time interval, some distributors may have customers in these classes that have conventional meters and are not eligible for the regulated price plan ("RPP") and therefore are subject to the weighted average spot market price.

A distributor may, as part of its smart meter deployment program, decide to install smart meters for these customers. This could be on the basis that these customers will have higher demand than will typical residential and GS < 50 kW customers, and providing them with better information on how much and when they consume electricity may provide these customers with opportunities for more energy conservation and load shifting. While such meter conversions may generally appear to be logical, they are outside of the regulation and hence are beyond minimum functionality. In other instances, a distributor may convert the meters of interval-metered customers upon repair or re-sealing to "smart" meters that communicate using the AMI infrastructure that the distributor has installed, replacing the existing communications systems for these meters. Again, as these are for meters for customers other than residential and small general service, they are outside of the regulation and hence beyond minimum functionality.

The Board, as part of the Combined Proceeding (EB-2007-0063, December 13, 2007), approved cost recovery for meter conversions for GS > 50 kW customers for both Toronto Hydro Electric System Limited ("Toronto Hydro") and Hydro Ottawa Limited. However the Board stated:

"*The Board is explicitly not finding that the costs associated with these meters fall into the minimum functionality costs. The Board approval of these costs is ancillary to the smart meter decision.*"

With respect to Toronto Hydro, the Board subsequently approved the recovery of these costs for smart meter installation/conversion for GS > 50 kW customers in Toronto Hydro's 2008-2009 [EB-2007-0681] and 2011 [EB-2010-0142] cost of service rate applications.

Some distributors may be doing "smart meter" conversions for General Service > 50 kW customers upon repair or resealing to enable meter data collection through the AMI infrastructure. While it is recognized that these smart meter installations and conversions are "beyond minimum functionality", a distributor may apply for the recovery of such costs. The application should document the nature, the justification and the cost per meter separately from those for the residential and GS < 50 kW customers.

C. Costs for TOU rate implementation, CIS system upgrades, web presentation, etc.

Costs for CIS systems, TOU rate implementation, etc., are beyond minimum functionality as established by the Board in the Combined Proceeding. However, such costs may be recoverable. In its application, a distributor should show how these costs are required for its smart meter program. Further, a distributor should document how these costs are incremental. For example, if a distributor has a normal budget for maintenance of its billing and CIS systems, costs claimed for system maintenance and upgrades must be shown to be incremental to the normal budget that is already recovered in base rates.

All costs beyond minimum functionality should be clearly identified and supported. Costs that are for meter data functions that will be the responsibility of the Smart Metering Entity will not be recoverable, unless already allowed for as per O.Reg. 426/06. Costs for other matters such as CIS changes or TOU bill presentment may be recoverable, but the distributor will have to support these costs and will have to demonstrate how they are required for the smart meter deployment program and that they are incremental to the distributor's normal operating costs.

Cost recovery for ongoing costs of the Smart Metering Entity should not be included in any smart meter cost recovery application, until such time as the Board establishes a cost recovery mechanism. To date, the Board has disallowed requests for either cost recovery or the establishment of a deferral account to track these costs.

Cost Allocation

The model does not deal with allocations between customer rate classes. In calculating the SMDR and SMIRR, the Board has approved, in some applications, the recovery of amounts from certain applicable customer classes based on the availability of detailed data at the customer class level and on principles of cost causality.

If a distributor does not have sufficient information to support an allocation to the applicable classes, a distributor may choose to propose a recovery on the basis of all metered customers resulting in one uniform rate rider for all metered customer classes. The model calculates the SMFA, SMIRR and SMDR on this basis.

Whichever method is adopted, the Board is of the view that any cost allocation approach should be consistent between the SMDR and the SMIRR when disposition is sought in a stand-alone application. The Board will entertain proposals supported by analysis for SMDRs and SMIRRs based on principles of cost causality and where the distributor has the necessary historical and forecasted data. Distributors should refer to the PowerStream application considered under EB-2010-0209 for a practical approach. However, if a distributor decides to adopt this approach in its application, it will have to adjust it to its own circumstances.[2] Further, adoption of this approach will not predetermine its approval by the Board in an individual application.

Stranded Meters

The model does not address the recovery of stranded meter costs. Distributors filing Cost of Service applications should refer to *Chapter 2 of the Filing Requirements for Transmission and Distribution Applications*, issued June 22, 2011 (Section 2.5.1.5).

While it would be preferable, conceptually, to also deal with stranded meter costs in a non-cost of service application, the Board recognizes that practical difficulties would arise since there is no restatement of rate base and rates. The Board therefore expects that stranded meter costs will be left in rate base until the distributor's next cost of service application.

The Stranded Meter Rate Rider to recover the residual Net Book Value of stranded (i.e. replaced conventional) meters is separate from any SMDR or SMIRR. In other words, a distributor must calculate (and should show its derivation) the Stranded Meter Rate Rider on a stand-alone basis.

---

[1] See Section 2.10 – Cost Allocation of Chapter 2 of the Filing Requirements for Transmission and Distribution Applications, issued June 22, 2011.

[2] For example, if a distributor has deployed smart meters to classes other than Residential and GS < 50 kW, it will have to reflect the additional classes in any cost allocation proposal.

Appendix D

Welland Hydro Electric System
Smart Meter OMA Incremental Costs

	Full Year Actual 2010	YTD Sep Actual 2011	Ful Year Forecast 2011	2011 Versus 2010
5315 Customer Billing-Supplies	$29,751	$28,640	$38,187	
5315 Customer Billing-Office Supplies	4,893	15,484	20,645	
5315 Customer Billing-Postage	49,166	76,105	101,473	
5320 Collection-Postage	27,847	24,300	32,400	
Sub Total Billing Costs	111,657	144,529	192,705	81,048
TS Meter Reading	2,400	5,363	6,563	
Manual Meter Reading Costs	88,839	28,782	37,386	
Electronic Meter Reading Costs	0	7,441	10,741	
5310 Meters-Meter Reads	91,239	41,586	54,690	-36,549

Total Residential & GS<50	21,520
Less GS<50 Previous Mthly	1,692
Less Residential Previous Mthly	1,477
Bi Monthly Bills	18,351
Avg Bills Per Mth Bi-Monthly	9,176
Additional Bills Per Month	9,176

				2011	2012
Additional Invoice Cost					
Cost	Number	Cost/Inv	Add/Mth	Add/Year	Add/Year
3855	160000	0.024	$221	$2,653	$2,653
Aditional Envelope Cost					
Cost	Number	Cost/Inv	Add/Mth	Add/Year	Add/Year
3525	150000	0.024	$216	$2,587	$2,587
Additional Toner Bill Print					
Cost	Number	Cost/Inv	Add/Mth	Add/Year	Add/Year
$408	12345	0.033	$303	$3,639	$3,639
Additional Delivery Cost					
			Add/Mth	Add/Year	Add/Year
Hand	4152	0.35	$1,453	$17,438	$17,438
Mailed	5024	0.56	$2,813	33,761	33,761
Total Change In Delivery Cost				$51,200	$51,200
Sub-Total Billings Costs				$60,079	$60,079
Change in Meter Reading Cost					
Manually Read Meters-All Meters				-$51,453	-$88,839
Electronic Meter Reads-Residential Smart Meters				10,741	0
Read GS>50 Non-Interval Meters Included Above				0	4,800
Sub-Total Meter Reading Costs				-$40,712	-$84,039
Additional Billing Personnel (75% of Costs)					
Start Date December 1, 2011				$5,076	$60,921
Total Incremental Cost Change				$24,443	$36,961

Appendix E
Page 1

loud clear great ideas. delivered.

Estimate

Loud+Clear
20 Court Street
St. Catharines, Ontario L2R 4R4
Canada
Phone: 905-682-8933
Fax: 905-682-3951

Welland Hydro Electric Corp.
Perry Orosz
PO Box 280
950 East Main Street
Welland, Ontario L3B 5P6
Canada

Date:	10/12/2011
Delivery Date:	10/12/2011
Product Name:	
Project Name:	Time-of-Use Launch and Marketing
Project Number:	11-WELH-0061
Estimate Name:	Time-of-Use Launch and Marketing
Estimate Description:	Time of Use Launch Plan - Budget

Planning	**$360.00**
Schedule and Budget Development and Approval	$360.00
Customer Direct Mail Packages	**$2,490.00**
Letter/Envelope Design and Approval	$660.00
Cling design, approval print and delivery	$630.00
Finalize package spec and drop dates with mailhouse	$660.00
Data files verification and digital files delivery	$210.00
Package processing and delivery	$330.00
Media and Public Relations	**$3,645.00**
CSR Training Session and presentation	$960.00
Issues Notes Production and Fulfillment	$555.00
Public Open House - Coordination and Fullfilment	$930.00
Press Releases development and approval	$300.00
Media relations-issue releases, follow ups and interviews	$900.00
Advertising	**$1,200.00**
Media plan development, approval and booking	$300.00
TOU launch ads design and approval	$480.00
Open House notice ad design and approval	$420.00
Digital and Interactive	**$1,560.00**
Website updates and additions	$1,080.00
LCD display notices development and approval	$480.00

Expenses	**Qty**	**Unit Amount**	**Total**
Postage-Addressed Lettermail	23,000.00	0.616	$14,168.00 *
Printing - Envelopes(#10 Window)	23,000.00	0.091	$2,093.00 *
Mailing Services-Processing	23,000.00	0.052	$1,196.00 *
Printing-Letters from supplied PDF	23,000.00	0.312	$7,176.00 *
Printing-Appliance Cling/TOU Promo	23,000.00	0.234	$5,382.00 *

Print Media-TOU launch ads	3.00	705.900	$2,117.70 *
Print Media-Open House ads	2.00	780.000	$1,560.00 *
			$33,692.70
		Subtotal	$42,947.70
		HST	$5,583.20
		Total	$48,530.90

Approved By _____ _____

Welland Hydro Smart Meter - Revenue Requirement Rate Rider

A) Based on Estimated Capital Split - Smart Meters

	Total	Residential Class	%	GS<50 Class	%
Capital Expenditures	$3,037,636	$2,577,949	84.9%	$459,687	15.1%
Metered Customers	21,520	19,828	92.1%	1,692	7.9%
Short Term Interest	$1,327				
Long Term Interest	106,451				
Return on Equity	79,928				
Amortization	220,454				
	$408,160	$346,393	84.9%	$61,767	15.1%
OM & A Costs	$176,775	$162,876	92.1%	$13,899	7.9%
Revenue Before PILS	$584,935	$509,269	87.1%	$75,666	12.9%
Gross-Up PILS	$20,292	$17,667	87.1%	$2,625	12.9%
Revenue Requirement	$605,227	$526,936		$78,291	
Revenue Requirement Rate Rider		$2.21		$3.86	

B) Based on 2006 Cost Allocation Model

	Total	Residential Class	%	GS<50 Class	%
Allocators					
CWMC (Account 1860)	$1,721,315	$1,156,420	67.2%	$564,895	32.8%
Number of Metered Customers	21,520	19,828	92.1%	1,692	7.9%
Revenue Requirement before PILS	$4,739,762	$3,757,820	79.3%	$981,942	20.7%
Short Term Interest	$1,327				
Long Term Interest	106,451				
Return on Equity	79,928				
Amortization	220,454				
	$408,160	$274,212	67.2%	$133,948	32.8%
OM & A Costs	$176,775	$162,876	92.1%	$13,899	7.9%
Revenue Before PILS	$584,935	$437,088	74.7%	$147,847	25.3%
Gross-Up PILS	$20,292	$16,088	79.3%	$4,204	20.7%
Revenue Requirement	$605,227	$453,176		$152,051	
Revenue Requirement Rate Rider		$1.90		$7.49	

Welland Hydro - Capital Cost By Customer Class

	Total Units	Total Cost	Residential Units	Residential Cost	GS<50 Units	GS<50 Cost
1.1.1 Meters						
Non Three Phase	20,872	$1,950,512	19,920	$1,861,547	952	$88,965
Three Phase	1,020	414,256	256	103,970	764	310,286
1.1.2 Installation						
Non Three Phase Labour	20,872	173,850	19,920	165,920	952	7,930
Three Phase Labour	1,020	19,967	256	5,011	764	14,956
Adaptors-All Meters	21,892	64,035	20,176	59,016	1,716	5,019
Meter Rings-All Meters	21,892	98,040	20,176	90,355	1,716	7,685
Plastic Padlock-All Meters	21,892	3,873	20,176	3,569	1,716	304
1.1.3a Workforce Automation						
Hardware-All Meters	21,892	57,633	20,176	53,115	1,716	4,518
1.1.3b Workforce Automation						
Software-All Meters	21,892	20,360	20,176	18,764	1,716	1,596
1.2 AMRC						
Total Cost-All Meters	21,892	200,199	20,176	184,506	1,716	15,693
1.5 Other AMI Costs						
Total Cost-All Meters	21,892	34,911	20,176	32,175	1,716	2,736
Total Capital Costs	21,892	$3,037,636	20,176	$2,577,949	1,716	$459,687
Average Capital Cost/Meter		$138.76		$127.77		$267.88

Welland Hydro Smart Meter - Disposition Rate Rider

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	$2,311,772	96.0%	$97,550	4.0%
2010 Capital Spending	$78,685	$52,226	66.4%	$26,459	33.6%
2010 Cumulative	$2,488,007	$2,363,998	95.0%	$124,009	5.0%
2011 Capital Spending	$549,629	$213,951	38.9%	$335,678	61.1%
2011 Cumulative	$3,037,636	$2,577,949	84.9%	$459,687	15.1%
Metered Customers	21,520	19,828	92.1%	1,692	7.9%
Return & Amortization 2007-2009	$174,649	$167,578	96.0%	$7,071	4.0%
Return & Amortization 2010	$346,487	$329,217	95.0%	$17,270	5.0%
Return & Amortization 2011	$381,669	$323,911	84.9%	$57,758	15.1%
	$902,805	$820,706	90.9%	$82,099	9.1%
OM & A Costs & Interest 2007-2011	$358,266	$330,098	92.1%	$28,168	7.9%
Revenue Before PILS 2007-2011	$1,261,071	$1,150,803	91.3%	$110,268	8.7%
Gross-Up PILS 2007-2009	$6,734	$6,461	96.0%	$273	4.0%
Gross-Up PILS 2010	$10,008	$9,509	95.0%	$499	5.0%
Gross-Up PILS 2011	$13,350	$11,330	84.9%	$2,020	15.1%
	$30,092	$27,461	91.3%	$2,631	8.7%
Revenue Requirement 2007-2011	$1,291,163	$1,178,264	91.3%	$112,899	8.7%
Smart Meter Funding Adder Revenue & Carrying Costs 2006-2012	$1,352,033	$1,244,676	92.1%	$107,357	7.9%
Smart Meter True Up Amount	-$60,870	-$66,412		$5,542	
Disposition Rate Rider		-$0.28		$0.27	

Welland Hydro Smart Meter - Disposition Rate Rider

Based on 2006 Cost Allocation

	$	Residential Class	%	GS<50 Class	%
Allocators					
CWMC (Account 1860)	$1,721,315	$1,156,420	67.2%	$564,895	32.8%
Metered Customers	21,520	19,828	92.1%	1,692	7.9%
Revenue Requirement before PILS	$4,739,762	$3,757,820	79.3%	981,942	20.7%
Return & Amortization 2007-2009	$174,649	$117,333	67.2%	$57,316	32.8%
Return & Amortization 2010	$346,487	$232,778	67.2%	$113,709	32.8%
Return & Amortization 2011	$381,669	$256,414	67.2%	$125,255	32.8%
	$902,805	$606,526	67.2%	$296,279	32.8%
OM & A Costs & Interest 2007-2011	$358,266	$330,098	92.1%	$28,168	7.9%
Revenue Before PILS 2007-2011	$1,261,071	$936,623	74.3%	$324,448	25.7%
Gross-Up PILS 2007-2009	$6,734	$5,339	79.3%	$1,395	20.7%
Gross-Up PILS 2010	$10,008	$7,935	79.3%	$2,073	20.7%
Gross-Up PILS 2011	$13,350	$10,584	79.3%	$2,766	20.7%
	$30,092	$23,858	79.3%	$6,234	20.7%
Revenue Requirement 2007-2011	$1,291,163	$960,481	74.4%	$330,682	25.6%
Smart Meter Funding Adder Revenue & Carrying Costs 2006-2012	$1,352,033	$1,005,761	74.4%	$346,272	25.6%
Smart Meter True Up Amount	-$60,870	-$45,280		-$15,590	
Disposition Rate Rider		-$0.19		-$0.77	