March 1, 2013

BY EMAIL/COURIER/RESS

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

Dear Ms. Walli,

RE: Whitby Hydro Electric Corporation
Application for 2013 Smart Meter Cost Recovery
Board File Number EB-2012-0479
Interrogatory Response – Board Staff

As directed by the Board's Notice of Application and Hearing for the above proceeding, Whitby Hydro Electric Corporation has provided responses to Board Staff interrogatories dated February 12, 2013. Two paper copies will follow via courier. A copy has also been filed electronically along with an Excel version of the Smart Meter model (revised) through the Board's RESS system.

Respectfully submitted,

Original Signed by

Ramona Abi-Rashed
Treasurer

cc: Mr. Keith Ritchie (email)
Mr. Michael Janigan (email)
Ms. Shelley Grice (email)

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Whitby Hydro Electric Corporation

EB-2012-0479

Stand-alone Smart Meter Application

Whitby Hydro Response to Board staff Interrogatories

1. Responses to Letters of Comment

Following publication of the Notice of Application, the Board has received five letters of comment.

Please confirm whether a reply was sent from the applicant to the author of each letter. If confirmed, please file that reply with the Board. Please ensure that the author's contact information except for the name is redacted. If not confirmed, please explain why a response was not sent and confirm if the applicant intends to respond.

Response:

Whitby Hydro Electric Corporation (WHEC) confirms receipt of the five letters noted above. A reply was sent to four of the five authors via email. In addition, one of the individuals followed up with a phone call which was addressed by the Executive Vice President-Finance/Regulatory. WHEC was unable to respond to one letter because no contact information was provided (phone, email or mailing address). An attempt was made to identify contact information via our billing system, however the results were inconclusive. The Letters of Comment filed with the Board and the corresponding WHEC responses are included in Appendix A. All contact information, with the exception of the name, has been redacted.

2. Ref: Application, pages 5-6

On page 6 of the Application, Whitby Hydro Electric Corporation ("WHEC") states:

> WHEC has not included any 2012 installations of Smart Meters based on growth of Residential and GS<50 kW customers. Neither the capital cost nor the operating cost of these meters is included for recovery sought in this application. For 2012 and beyond, the capital and operating costs for growth related smart meters will be included in the 2015 Cost of Service Rate Application.

In Table 4 on page 5, WHEC documents 54 Residential and 21 GS < 50 kW smart meter installations in 2012.

a) Please confirm whether the 2012 installations are growth-related or are delayed smart meter installations for existing customers.

Response:

The 2012 installations noted in the application relate strictly to delayed smart meter installations for existing customers.

b) Why has WHEC not included capital and operating costs for smart meters installed for new Residential and GS < 50 kW customers in 2012? In particular, how is WHEC recovering, or proposing to recover the costs for the installation and operation of smart meters installed for new customers in 2012?

Response:

WHEC has revised its submission and has included 2012 growth related capital costs for meters. The change incorporates smart meter capital of $93,223 (and related depreciation expenses) for 550 Residential and 20 General Service <50kW customers due to growth in 2012. There were no changes made to the operating expenses to incorporate growth as the impact was not expected to be material. Updated meter and cost allocation breakdowns are included in the tables below:

Table 12 (Revised) - Number of Single and Three Phase Meters by Rate Class - updated for interrogatories

Allocation	Residential	GS<50	Total
Total Customers Installed	38,524	2,097	40,621
Single Phase	38,519	567	39,086
Three Phase	5	1,530	1,535
Total	**38,524**	**2,097**	**40,621**

Table 13 (Revised) - Allocation of 1.1 Single and Three Phase Meter Costs - updated for interrogatories

Single Phase	Total	Residential	GS<50	Total
Smart Meter Purchase	3,087,888	3,043,093	44,794	3,087,888
Installation Cost	748,871	738,008	10,863	748,871
Workforce Automation	87,675	86,403	1,272	87,675
Total	**3,924,434**	**3,867,504**	**56,930**	**3,924,434**

Three Phase	Total	Residential	GS<50	Total
Smart Meter Purchase	609,129	1,984	607,145	609,129
Installation Cost	208,058	678	207,380	208,058
Workforce Automation	3,443	11	3,432	3,443
Total	**820,630**	**2,673**	**817,957**	**820,630**

Total	Total	Residential	GS<50	Total
Smart Meter Purchase	3,697,017	3,045,077	651,939	3,697,017
Installation Cost	956,929	738,686	218,243	956,929
Workforce Automation	91,118	86,414	4,704	91,118
Total - 1.1 Capital Costs	**4,745,064**	**3,870,177**	**874,887**	**4,745,064**

c) What operating expenses are growth-related? Please confirm if any of the operating expenses are for WAN operation, CIS and billing systems operations, MDM/R-related operations and for the added analyst. Please confirm whether or not the levels of these expenses are invariant to customer growth. If so, please confirm why the operating expenses documented for 2012 and 2013 are not sufficient to recover the operating costs for smart meters for both pre-2012 and any added Residential and GS < 50 kW customers.

Response:
The operating expenses associated with monitoring and reading of the smart meters by the AMI vendor is a variable cost ($/meter). Apart from that, WHEC is not currently anticipating that other smart meter operating expenses will fluctuate significantly as a result of the current levels of growth experienced. However, as growth continues to build over time, there would likely be a point at which additional costs would be necessary to support the requirements of a larger customer base. WHEC will continue to gain an increased understanding of its on-going smart meter operating costs over the course of time and as technologies and system requirements evolve.

d) What does WHEC mean in stating that capital and operating costs for growth related smart meters for 2012 and beyond will be dealt with in the 2015 Cost of Service application?

Response:
Please see IRR 2(b). WHEC will be recovering the 2013 capital costs as part of the regular re-basing in the 2015 Cost of Service Application.

3. Ref: Application, page 6 – Settlement Analyst

On page 6 of the Application, WHEC states:

> Projected 2012 operating costs include monthly user fees for meter reading and communication costs, salary and expenses for an incremental Settlement Analyst staff position to administer the Smart Meter and TOU programs. WHEC notes that this staff position was created in September 2010 solely due to the installation of Smart Meters and implementation of TOU billing. The salary and expenses were not included in WHEC's approved 2011 COS filing, thus, these costs are not included in WHEC's current rates.

a) What are the functions and responsibilities of the Settlement Analyst?

Response:
In 2008, an incremental resource was engaged to look after special projects with the main focus being the Smart Meter project. This individual took on a variety of Smart Meter related roles/tasks and the position transitioned into a more analytical role in 2010 (defined as the Settlement Analyst position in the application). The System Analyst position and the Settlement

Analyst position represent the same resource and this is a case of different terminology being used within the application document. For clarity, this is one role, not two.

The related Smart Meter costs associated with this resource span several categories in the Smart Meter model in an attempt to align costs with the types of activities performed over the course of the project. These costs form all (2009/2010) or a portion (2008, 2011-2013) of the total costs in each of the following categories indicated below:

	2008	2009	2010	2011	2012	2013
Capital						
1.5.4 Integration		x	x			
1.5.5 Program Management	x					
1.6.3 MDM/R TOU implementation/integration etc.				x		
OM&A						
2.6.3 MDM/R TOU implementation/integration etc.					x	x

In 2008, this resource was a member of the Smart Meter Project team which was led by a Project Manager. The members of the team consisted of a group of cross functional employees (see IRR # 7).

In preparation for the 2010 deployment of smart meters, this resource was the key contact for the coordination with vendors to manage the CIS system upgrade and testing requirements for modules that were necessary for deployment of the smart meters. As an example, the mass meter exchange program was a requirement in order to process service orders in mass quantities for the replacement of every residential and GS<50 meter in the WHEC service territory. This interface created the need for internal testing and validation and the development of new processes to manage the meter change process for an unprecedented volume of meters. The resource also worked closely with other departments to manage meter inventory requirements, ancillary supplies, installation vendor coordination and requirements, etc

Once metering assets were deployed in the field, the focus shifted from that of a preparation role to a data analysis role (Settlement/System Analyst). The implementation of smart meters created an unprecedented volume of meter data to be managed.

With the AMI network stabilized, the Settlement/System Analyst role then focused on business process development that was necessary for the MDMR enrollment process. The MDMR enrollment process consisted of months of formal testing with the IESO to meet the certification requirements to enroll the WHEC meter population with the centralized MDMR. In addition to completing the enrollment testing requirements, the Settlement/System Analyst also completed the required testing and business process redevelopment to move to the MDMR version 7.2. The resource costs were classified as 1.5.4 (Integration) for 2009-2010.

Once the MDMR registration process was successfully completed, the Settlement/System Analyst then focused on the business process development and education for the implementation of TOU billing. This would require CIS system module upgrades, CIS testing, development of the schedule to switch customers from RPP tiered to TOU billing, bill print modifications and MDMR testing. Coordination with vendors for file transfer activity was also required with the new interfaces. Finally, with a change of this magnitude, there was the need to ensure that change management and education of utility employees was facilitated to ensure that WHEC staff understood the integration and reliance of the multiple systems now intertwined in the billing process.

The Settlement/System Analyst was also a key player in the selection, implementation and testing process for the Web Presentment solution that would be implemented to support the ability for WHEC customers to view their TOU consumption data online. The resource costs were allocated to 1.6.3 (MDMR/TOU implementation) for 2011.

The System/Settlement Analyst remains the utility lead for the business processes that include the IESO MDMR, the ODS and CIS/TOU Billing. The role also includes the daily review/maintenance of MDMR reporting and metering communications. For the upcoming year MDMR 7.2+ testing and implementation will also be included in the duties.

WHEC recognized early on that the integration between WHEC systems and the IESO MDMR included a tremendous degree of complexity, and that to create a "single point of failure" within the utility by having only one resource with the critical knowledge regarding the new billing processes for residential and GS<50 customers would place the LDC in a position of risk. However, the new processes did not require that 2 FTEs be put in place to implement the redundancy. A more cost effective model was presented through the Sync Operator role which Util-Assist provides. By utilizing the Sync Operator service, WHEC acquires redundancy for the new TOU billing processes, but at a cost of much less than an additional FTE. The resource costs have been allocated to 2.6.3 (MDMR/TOU implementation) in 2012 and 2013.

b) What role did the Settlement Analyst have in the administration of the Smart Meter program?

Response:
See above response to (a).

4. Ref: Application, page 8, Table 8 – OM&A Costs Beyond Minimum Functionality

On page 6 of the Application, WHEC states that OM&A costs include the costs for a Settlement Analyst position added in 2010.

In Table 8 on page 8 of the Application, WHEC documents OM&A expenses for "beyond minimum functionality" features of the smart meter program including TOU implementation and operation. Amongst these expenses are $40,000 in 2012 and $45,000 in 2013 for a "Sync Operator" and $38,000 in 2012 and $57,000 in 2013 for a "System Analyst".

a) Are these new positions separate from the Settlement Analyst documented on page 6? Are these positions and the associated costs incremental?

Response:
The System Analyst position is the Settlement Analyst position and this is a case of different terminology being used within the application document. For clarity, this is one role, not two. The System Analyst position has been filled and is incremental. WHEC has contracted Util-Assist to perform the Sync Operator function and the cost is incremental.

b) Have these positions been filled? If not, when does WHEC expect to fill them?

Response:
See response (a) above.

c) Please provide a brief description of the roles and responsibilities for each of the Sync Operator and the System Analyst in relation to the Smart Meter and TOU operations.

Response:
The Sync Operator has an assortment of responsibilities and acts as an intermediary between the different departments that are now dependant on one another through the TOU billing process (i.e., managing AMI, MDM, IT functions), including management and resolution of the following billing related tasks:

- MDMR billing report monitoring and exception management
- AMI meter data report monitoring and exception management
- AMI/MDMR synchronization functions and sync report monitoring and exception management
- AMI/MDMR education and change management within the utility

The System Analyst role is clarified and further described in IRR#3.

The System Analyst role in 2013 will continue to revolve around the TOU billing process and the AMI network. Change Management will continue to be required with AMI system and MDMR upgrades.

There is some crossover between the System Analyst and the Sync Operator functions. It has become critical to manage redundancy (back-up resources) within the structure because the new billing environment is so complex; it is not sufficient for only one staff member to hold all the knowledge regarding these critical systems. By utilizing the Sync Operator service, WHEC acquires redundancy for the new TOU billing processes, but at a cost of much less than an additional FTE. The Change Management functions cited above are another example of a new skill set that has become a requirement based on the rate at which these new technology systems are evolving – as changes are made, the business processes change and significant testing is required to ensure billing accuracy is retained.

5. Ref: Application, page 3 –Stranded Meters

On page 3 of its Application, WHEC states that no costs for stranded meters are proposed for recovery in this Application, and that WHEC proposes to address these in its next Cost of Service application, expected for 2015 rates.

a) Please confirm that WHEC continues to record depreciation expense against the remaining value of the conventional meters stranded through replacement by smart meters. In the alternative, please explain.

Response:
Confirmed. WHEC continues to record depreciation expenses related to the stranded meters.

b) Please provide WHEC's estimate of the net book value of stranded meters, for each of the Residential and GS < 50 kW customer classes, as of December 31, 2014.

Response:
WHEC is currently undergoing the year end process and will be reviewing depreciation expenses for stranded meters. Once that analysis is completed, the information will be provided to ensure the Board has the most updated estimate.

6. Ref: Application, page 8 – Operational Efficiencies

On page 8 of the Application, WHEC states that "[a]ll costs claimed in this application are incremental, and have been incurred for the purpose of implementing the Smart Meter and TOU programs (they would not otherwise have been incurred)."

WHEC notes that it implemented TOU billing in 2012. Further, WHEC's next Cost of Service application is scheduled for rates to be effective January 1, 2015. This is nearly two years hence.

What, if any efficiencies and costs savings, such as from reduction or elimination of manual meter reading, has WHEC identified and how are these taken into account in this Application?

Response:
WHEC has not included the impact of any efficiencies and cost savings that may occur as a result of shifting from conventional meters to smart meters in this application. At this time, the primary savings is expected to be gained from the elimination of manual meter reading, however, as completion of the smart meter rollout and time-of-use billing changes are still relatively recent, it is expected that WHEC will be in a better position to assess any costs eliminated or saved in its next cost of service application. WHEC believes that it is reasonable to review these savings at a time when there is a greater understanding of the on-going costs and benefits associated with operations in a smart meter environment.

7. Ref: Smart Meter Model, Version 3.01WH – Sheet 2 – Capital Costs

WHEC has documented $216,455 for capital-related costs under "1.5.3 Professional Fees" as part of "Other AMI Capital Costs Related to Minimum Functionality" on Sheet 3 of the Smart Meter Model. Over 50% of the costs are documented as being incurred in 2008. Please provide further description of the capital costs and the assets procured and put into service under this category.

Response:

Since WHEC did not have sufficient availability of resources or expertise in-house to address the implementation of the Smart Meter Program, the services of Util-Assist were enlisted in 2007. At this time, WHEC staff was operating at full capacity to manage the tasks that were required to manage the utility. To fulfill the smart meter mandate would be an enormous undertaking and Util-Assist provided the technical expertise and education to the WHEC team required to address the complicated Smart Meter infrastructure as well as the evolving requirements. A Smart Meter Project team was developed leveraging existing staff and after reviewing the project requirements, it was determined that an in-house project manager was required (this resource was hired on contract in 2007).

The costs for both of these services was $75K in 2007, however, these costs were grouped in 2008 since the assets were considered work-in-progress. Please see the table below:

1.5.3 Professional Fees							
2007	2008	2009	2010	2011	2012	2013	Total
75,028	44,461	33,275	49,588	14,103	-	-	216,455

In 2008, the project manager became a full time employee and the Smart Meter costs for this resource were then classified under 1.5.5 – Program Management. (see IRR#8)

8. Ref: Smart Meter Model, Version 3.01WH – Sheet 2 – Capital Costs

WHEC has documented $265,135 for capital-related costs under "1.5.5 Program Management" as part of "Other AMI Capital Costs Related to Minimum Functionality" on Sheet 3 of the Smart Meter Model. These costs were incurred from 2008 to 2010, with over 50% of the costs are documented as being incurred in 2008. Please provide further description of the capital costs and the assets procured and put into service under this category.

Response:

Please see response for #7 above.

The Smart Meter Program team was led by the Project Manager who was hired as a full time employee in 2008. The team was a cross functional group of existing employees with the exception of the Special Project resource who was added in 2008 (this role is defined in IRR# 3(a)). The majority of the project was planned and developed in 2007-2008 with the roll out

commencing from 2009 -2011. As a result, the majority of program management costs are more heavily weighted towards the earlier years of the project.

The Smart Meter Project Manager was responsible for the end to end implementation of the Smart Meter and TOU programs. The Project Manager was not only responsible for the day-to-day management of the program but also responsible for the overall budget formulation/management, staff recruitment, technology selection, vendor selection and customer communication.

At the onset of the smart meter initiative, this project manager was the lead for the planning of the mass deployment of smart meters. In 2007-2008, much of the activity centered around education as the Smart Meter Mandate represented new technology in the utility industry and presented a one-time opportunity for WHEC to replace metering assets in the field. Utility service territory details would need to be gathered and provided for the London Hydro RFP process and this information would be utilized in the award of the winning proponent for WHEC. Deployment of the AMI infrastructure would require careful planning with the AMI vendor to ensure that the AMRC locations were strategic and would support the data collection requirements to meet the performance requirements of the functional specification.

With the AMI vendor selection process complete, the project manager was then the lead for the procurement process to select the meter installation vendor. With the requirement to change every residential and GS<50 meter in the WHEC service territory in a short amount of time came the requirement to select a vendor partner to complete this field activity as WHEC did not have the staffing levels to support this one-time mass deployment requirement. The resource also led the Operational Data Storage System RFP procurement process; the ODS would be a critical component in managing the health of the metering assets as they were deployed and would be utilized to store and analyze the quality of the data provided by the AMI. This tool provided a mechanism to ensure that the AMI network was meeting the required service level agreements.

The project manager oversaw the MDMR registration process as well as the business process development and education for the implementation of TOU billing. With the mass deployment of residential metering assets complete, stabilization of the AMI network was a primary focus to ensure that the AMI data was considered billing quality and that the assets in the field, were performing as required. The project manager also managed the replacement project for small commercial smart meters during this timeframe to satisfy the mandate. Preparation for the move to TOU billing required management of multiple vendors to integrate multiple platforms of software. The resource costs were allocated to 1.6.3 (MDMR/TOU implementation) for 2011.

The related Smart Meter costs associated with the Project Manager span several categories in the Smart Meter model in an attempt to align costs with the types of activities performed over the course of the project. The categorization of costs by year is summarized below:

		2007	2008	2009	2010	2011
Capital						
1.5.3	Professional Fees	x				
1.5.5	Program Management		x	x	x	
1.6.3	MDM/R TOU implementation/integration etc.					x

9. Ref: Smart Meter Model, Version 3.01WH – Sheet 2 – OM&A Expenses

WHEC has documented $247,646 under "2.1.2 Other" with respect to OM&A expenses for the Advanced Metering Communications Device ("AMCD"). This includes a forecasted amount of $80,000 for 2013.

a) Please provide further description of these OM&A expenses.

Response:
These expenses relate to the Operational Data Storage (ODS) system. The ODS system is necessary as it is utilized in collection, cataloging and presentment of power system parameters (voltage, power fail, tamper, identifying loss and restoration of power) and assessing overall meter health. The information provided by the ODS is relied on to track the overall system performance to ensure adequate service level performance is attained. The AMCC only stores data for 60 days as per the Ministry of Energy's Functional Specification and the provincial centralized MDMR does not store operational data at this time. WHEC has implemented business processes that include the use of the ODS intelligence to manage the metering assets in the field. This strategy enables WHEC to leverage the infrastructure deployed to satisfy the smart meter mandate.

b) Please identify if the 2013 forecasted expenses are recurring or one-time costs. If a combination, please disaggregate the costs between one-time and recurring.

Response:
These are recurring costs.

10. Ref: Smart Meter Model, Version 3.01WH – Sheet 2 – OM&A Expenses

WHEC has documented $27,216 for 2011 and $44,613 for 2012, for a total of $71,829, under "2.3.2 Other" with respect to OM&A expenses for Advanced Metering Control Computer ("AMCC"). Please provide further description of these OM&A expenses.

Response:
These expenses relate to payments to the AMI vendor for the management of the AMI network. The AMI vendor is responsible for the collection of the meter read data and is held to service level agreements for AMI network performance to ensure that the data is collected in accordance with the requirements of the Ministry of Energy Functional Specification. In the management of the AMI network role, the AMI vendor is responsible for all tasks related to the

monitoring and maintenance of the AMCC hardware to ensure that the system is optimized. To clarify, WHEC has split the AMI vendor costs between 2.3.2 Other (monitoring and collection of meter read data) and 2.2.1 (maintenance of the AMI system).

11. Ref: Application, page 13, and Smart Meter Model, Version 3.01WH – Sheet 3 – Taxes/PILs Rates

On page 13 of its Application, WHEC has documented the Weighted Average Cost of Capital (`WACC`) and tax rates in Table 14:

Table 14 - WACC and Tax Rate Inputs

Year	2006 COS	2007 IRM	2008 IRM	2009 IRM	2010 IRM	2011 COS	2012 & On IRM
WACC	8.13%	8.13%	8.07%	8.01%	8.01%	7.03%	7.03%
Tax Rates	36.12%	36.12%	36.12%	36.12%	36.12%	28.25%	26.50%

WHEC has also input the following rates for the aggregate Federal and Ontario tax rates into Sheet 3 of the Smart Meter Model.

	2006	2007	2008	2009	2010	2011	2012	2013
Taxes/PILs								
Aggregate Corporate Income Tax Rate	36.12%	36.12%	36.12%	36.12%	36.12%	28.25%	26.50%	26.50%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%	0.00%

For 2008, 2009 and 2010, the input rate of 36.12% exceeds the maximum Federal and Ontario corporate income tax rate in each of those years.

The taxes/PILs rates should correspond to the effective tax rate in each year, and should correspond with the rate from the PILs model in years with Cost of Service applications, or with the effective tax rate from the tax-sharing module in IRM applications in other years.

a) Please explain the tax rates input into the Smart Meter Model and confirm that these correspond with the tax rates from the Cost of Service or IRM application in each year. In the alternative please explain.

Response:

The tax rates for the years identified were incorrectly entered into the model. The correct rates should be:

2008 - 33.50%
2009 - 33.00%
2010 - 31.00%

b) If necessary, please update the Smart Meter Model for corrected tax rates.

Response:
The tax rates have been updated in the Smart Meter Model provided in IRR#14.

12. Ref: Smart Meter Model, Sheet 8 – OM&A Costs

On Sheet 8 of the Smart Meter Model, WHEC has made an entry of ($39,962.13) for OM&A expenses for August 2012. Please provide an explanation for that entry.

Response:
The entry of ($39,962.13) represents the net impact of smart meter OM&A costs posted in August 2012. The net credit amount is a result of an adjustment to reallocate $72,720 of costs that were posted in error to a smart meter OM&A account during the earlier months of the year.

13. Ref: Application, page 10/Table 11 and Smart Meter Model, Sheet 10A – SMFA Revenues

On sheet 10A, in cells V48 and X48 show that 100% of SMFA revenues and interest are allocated to the Residential and GS < 50 kW classes, although the SMFA would also have been collected from GS > 50 kW customers.

On Table 11 of its Application, WHEC documents how it equally re-allocated the SMFA revenues, including interest from the GS > 50 kW class to the Residential and GS < 50 kW customer classes. However, the total SMFA revenues and interest shown in Table 11 of $3,030,202 differs from that shown in the Smart Meter Model, of $3,030,989.

a) Please confirm the allocation of the GS > 50 kW SMFA revenues from the GS > 50 kW class to the Residential and GS < 50 kW classes;

Response:
The SMFA of $3,030,989 is correct. Table 11 was missing $787 of carrying charges related to the Jan-Apr 2013 time period for the GS<50 kW class. An adjusted version of Table is provided below:

Table 11 - Actual and Forecasted Smart Meter Funding Adder Revenue by Rate Class - Including Interest and Re-Allocation of GS>50kW Class - REVISED for Board Staff IR#13

Rate Class	SMRA $	Reallocation of GS>50 kW (50/50)*	Total SMRA Recovery After Re-Allocation	Total Carrying Charge per SM Model**	Total SMRA Recovery After Re-Allocation
Residential	2,749,314	14,522	2,763,836	100,659	2,864,496
GS<50 kW	146,171	14,522	160,693	5,801	166,494
GS>50 kW	29,044	(29,044)	0	0	0
Cumulative Total	2,924,529	0	2,924,530	106,460	3,030,989

b) Please explain the differences between the SMFA revenues and associated interest between Table 11 and the Smart Meter Model.

Response:
Please see response to (a) above. While this adjustment does not impact the SMDR calculation for Residential customers, there is a minor impact to the GS<50 kW class of customers. This revision is incorporated into the updates to the Smart Meter model requested in Board Staff's IR#14.

14. Ref: Smart Meter Model

a) If WHEC has made any changes to the evidence and the inputs to the Smart Meter Meter model as a result of responses to interrogatories from either Board staff or intervenors, and WHEC concurs with the corrections or updates, please file a revised version of the Smart Meter Model in working Microsoft Excel format.

Response:
A revised model has been submitted and included as Appendix B.

b) Please provide a summary of updates to the class-specific SMDRs and SMIRRs that result of responses to interrogatories from either Board staff or intervenors, and with which WHEC concurs.

Response:
The revised model includes the following updates:

1. Inclusion of 2012 meters related to growth (updated # meters and related capital and depreciation expenses) as per Board Staff IRR#2.
2. Updates to tax rates 2008-2010 (per Board Staff IRR#11).
3. Revision to incorporate the allocation of $787 of SMFA interest charges between Residential and GS<50kW customers classes (per Board Staff IRR#13).
4. Revised classification of AMI maintenance expenses in 2013 to align with prior year costs (per VECC IRR#7(h)).
5. Revised classification of customer communication expenses to more appropriately match the nature of the costs incurred (per VECC IRR#7(k)).

The following tables have been updated to summarize the recalculated SMDR and SMIRR:

Table 15 (Revised) - Calculation of Forgone Revenue - updated for Interrogatories

	Component	Allocator		Return	Amortization	OM&A	PILs	Total	Residential	GS < 50	Total
A	Return	Capital costs of the meters installed	%						81.6%	18.4%	100.0%
	Amortization	of each class	$	$317,560	$549,315			$866,875	$707,042	$159,833	$866,875
B	OM&A	# Meters installed for each class	%						94.8%	5.2%	100.0%
			$			$311,000		$311,000	$294,945	$16,055	$311,000
	Revenue Requirment Before PILs Allocation								**$1,001,987**	**$175,888**	**$1,177,875**
C	PILs	Revenue Requirement allocated to	$						$1,001,987	$175,888	$1,177,875
		each class before PILs (A+B)	%						85.1%	14.9%	100.0%
			$				$20,152	$20,152	$17,143	$3,009	$20,152
	Total Revenue Requirement		**$**	**$317,560**	**$549,315**	**$311,000**	**$20,152**	**$1,198,027**	**$1,019,130**	**$178,897**	**$1,198,027**
			%						85.1%	14.9%	100.0%
D	**Forgone Revenue - Added to SMDR (Represents 4 months of SMIRR)**								**$339,710**	**$59,632**	**$399,342**

Table 16 (Revised) - Smart Meter Disposition Rate Rider (SMDR) Updated for Interrogatories

SMDR - Summary Calculations

	Component of Revenue Requirement	Allocate between classes based on	Residential	GS < 50	Total
A	Return, Amortization and Related Interest	Capital costs of the meters installed for each class	$2,022,539	$457,212	$2,479,752
B	OM&A	# Meters installed for each class	$619,635	$33,729	$653,364
C	PILs	Revenue Requirement allocacted to each class before PILs	($373,140)	($69,333)	($442,473)
	Total Revenue Requirement		**$2,269,034**	**$421,608**	**$2,690,642**
	SMFA Revenue including Carrying Charges		**($2,864,495)**	**($166,494)**	**($3,030,989)**
	Net Deferred Revenue Requirement Before Foregone Revenue		**($595,461)**	**$255,114**	**($340,347)**
	Number of Metered Customers		**38,524**	**2,097**	**40,621**
	Calcualation of Smart Meter Disposition Rider	**Per metered customer per month**	**($1.29)**	**$10.14**	**($0.70)**
	Foregone Revenue for 4 months	**One-third of 2013 Revenue Requirement**	**$339,710**	**$59,632**	**$399,342**
	Net Deferred Revenue Requirement including Foregone Revenue		**($255,751)**	**$314,747**	**$58,995**
	Number of Metered Customers		**38,524**	**2,097**	**40,621**
	Calculation of Smart Meter Disposition Rider	**Per metered customer per month**	**($0.55)**	**$12.51**	**$0.12**

SMDR Backup - Detailed Calculations

	Component	Allocator		Return	Amortization	Interest	OM&A	PILs	Total	Residential	GS < 50	Total
A	Return	Capital costs of the meters installed	%							81.6%	18.4%	100.0%
	Amortization	of each class	$	$995,098	$1,456,151	$28,503			$2,479,752	$2,022,539	$457,212	$2,479,752
	Interest											
B	OM&A	# Meters installed for each class	%							94.8%	5.2%	100.0%
	Interest		$			$13,169	$640,194		$653,364	$619,635	$33,729	$653,364
	Revenue Requirment Before PILs Allocation									**2,642,174**	**490,941**	**3,133,115**
C	PILs	Revenue Requirement allocated to	$							$2,642,174	$490,941	$3,133,115
		each class before PILs (A+B)	%							84.3%	15.7%	100.0%
			$					($442,473)	($442,473)	($373,140)	($69,333)	($442,473)
	Total Revenue Requirement		**$**	**$995,098**	**$1,456,151**	**$41,672**	**$640,194**	**($442,473)**	**$2,690,642**	**2,269,034**	**421,608**	**$2,690,642**
			%							84.3%	15.7%	100.0%

SMDR Backup - Allocation Costs

	Allocator		Residential	GS < 50	Total
A	Capital costs of Meters Installed - AMCD 1.1	$	$3,870,177	$874,887	$4,745,064
		%	**81.6%**	**18.4%**	**100.0%**
B	# Meters installed	#	38,524	2,097	40,621
		%	**94.8%**	**5.2%**	**100.0%**
	Total Revenue Requirement (before PILS)	$	$2,642,174	$490,941	$3,133,115
		%	**84.3%**	**15.7%**	**100.0%**

Table 17 (Revised) - Smart Meter Incremental Revenue Requirement Rate (SMIRR) updated for Interrogatories
SMIRR - Summary Calculations

	Component of Revenue Requirement	Allocate between classes based on	Residential	GS < 50	Total
A	Return (Deemed interest plus return on equity) & Amortization	Capital costs of the meters installed for each class	$707,042	$159,833	$866,875
B	OM&A	# Meters installed for each class	$294,945	$16,055	$311,000
C	PILs	Revenue Requirement allocacted to each class before PILs	$17,143	$3,009	$20,152
	Revenue Requirement, including Grossed-up Taxes/PILs		**$1,019,130**	**$178,897**	**$1,198,027**
	Average Number of Metered Customers (2013)		**38,524**	**2,097**	**40,621**
	Calculation of SMIRR	**Per metered customer per month**	**$2.20**	**$7.11**	**$2.46**

SMIRR Backup - Detailed Calculations

	Component	Allocator		Return	Amortization	OM&A	PILs	Total	Residential	GS < 50	Total
A	Return	Capital costs of the meters installed	%						81.6%	18.4%	100.0%
	Amortization	of each class	$	$317,560	$549,315			$866,875	$707,042	$159,833	$866,875
B	OM&A	# Meters installed for each class	%						94.8%	5.2%	100.0%
			$			$311,000		$311,000	$294,945	$16,055	$311,000
	Revenue Requirment Before PILs Allocation								**$1,001,987**	**$175,888**	**$1,177,875**
C	PILs	Revenue Requirement allocated to	$						$1,001,987	$175,888	$1,177,875
		each class before PILs (A+B)	%						85.1%	14.9%	100.0%
			$				$20,152	$20,152	$17,143	$3,009	$20,152
	Total Revenue Requirement		**$**	**$317,560**	**$549,315**	**$311,000**	**$20,152**	**$1,198,027**	**$1,019,130**	**$178,897**	**$1,198,027**
			%						85.1%	14.9%	100.0%

SMIRR Backup - Allocation Costs

	Allocator		Residential	GS < 50	Total
A	Capital costs of Meters Installed - AMCD 1.1	$	$3,870,177	$874,887	$4,745,064
		%	**81.6%**	**18.4%**	**100.0%**
B	# Meters installed	#	38,524	2,097	40,621
		%	**94.8%**	**5.2%**	**100.0%**
	Total Revenue Requirement (before PILs)	$	$1,001,987	$175,888	$1,177,875
		%	**85.1%**	**14.9%**	**100.0%**

A comparison of impact to the SMDR and SMIRR is provided below:

Rate Rider	Residential		GS < 50 kW	
	Original Proposed May 1, 2013	Revised Proposed May 1, 2013	Original Proposed May 1, 2013	Revised Proposed May 1, 2013
Smart Meter Funding Adder (SMFA)	$0.00	$0.00	$0.00	$0.00
Smart Meter Disposition Rate Rider (SMDR)	($0.67)	($0.55)	$12.60	$12.51
Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)	$2.21	$2.20	$7.21	$7.11
Total Smart Meter Rate Change	**$1.54**	**$1.65**	**$19.81**	**$19.62**
Average impact over 20 months recovery period (May 1, 2013 - December 31, 2014)	$1.81	$1.87	$14.77	$14.61
HST	$0.24	$0.24	$1.92	$1.90
Subtotal	$2.05	$2.11	$16.69	$16.51
less OCEB	($0.21)	($0.21)	($1.67)	($1.65)
Total average bill impact	$1.85	$1.90	$15.02	$14.86

c) Please provide updated estimated bill impacts for a typical Residential customer consuming 800 kWh in a month and for a typical GS < 50 kW customer consuming 2000 kWh in a month.

Response:

Updated bill impact schedules are as follows:

Customer Class: **Residential**

Consumption 800 kWh

	Charge Unit	Current Board-Approved*			Proposed			Impact	
		Rate ($)	Volume	Charge ($)	Rate ($)	Volume	Charge ($)	$ Change	% Change
Monthly Service Charge	monthly	17.43	1	17.43	17.43	1	17.43	0.00	0.00%
Smart Meter Funding Adder	monthly		1	0.00		1	0.00	0.00	
Smart Meter - SMDR	monthly		1	0.00	(0.55)	1	(0.55)	(0.55)	
Smart Meter - SMIRR	monthly		1	0.00	2.20	1	2.20	2.20	
Distibution Volumetric Rate	per kWh	0.0144	800	11.52	0.0144	800	11.52	0.00	0.00%
Rate Rider for Dispostion of Global Adjustment	per kWh	0.0013	800	1.04	0.0013	800	1.04	0.00	0.00%
Deferral/Variance Account Dispostion Rate Rider (2010)	per kWh	(0.0017)	800	(1.36)	(0.0017)	800	(1.36)	0.00	0.00%
Deferral/Variance Account Dispostion Rate Rider (2012)	per kWh	(0.0032)	800	(2.56)	(0.0032)	800	(2.56)	0.00	0.00%
Sub-Total A - Distribution				26.07			27.72	1.65	6.33%
RTSR - Network	per kWh	0.0075	836.32	6.27	0.0075	836.32	6.27	0.00	0.00%
RTSR - Line and Transformation Connection	per kWh	0.0059	836.32	4.93	0.0059	836.32	4.93	0.00	0.00%
Sub-Total B - Delivery (including Sub-Total A)				37.28			38.93	1.65	4.43%
Wholesale Market Service Charge (WMSC)	per kWh	0.0052	836.32	4.35	0.0052	836.32	4.35	0.00	0.00%
Rural and Remote Rate Protection (RRRP)	per kWh	0.0011	836.32	0.92	0.0011	836.32	0.92	0.00	0.00%
Standard Supply Service Charge	monthly	0.25	1	0.25	0.25	1	0.25	0.00	0.00%
Debt Retirement Charge (DRC)	per kWh	0.0070	800	5.60	0.01	800	5.60	0.00	0.00%
Energy Average TOU Pricing	per kWh	0.0800	836.32	66.91	0.0800	836.32	66.91	0.00	0.00%
Total Bill (before Taxes)				115.30			116.95	1.65	1.43%
HST		13%		14.99	13%		15.20	0.21	1.43%
Total Bill (including Sub-Total B)				130.29			132.16	1.87	1.43%
Ontario Clean Energy Benefit (OCEB)		-10%		(13.03)	-10%		(13.22)	(0.19)	1.43%
Total Bill (less OCEB)				117.26			118.94	1.68	1.43%
Loss Factor (%)		4.54%			4.54%				

*Note: Current Board-Approved rates for 2013

Customer Class: **General Service < 50 kW**

Consumption 2,000 kWh

	Charge Unit	Current Board-Approved *			Proposed			Impact	
		Rate ($)	Volume	Charge ($)	Rate ($)	Volume	Charge ($)	$ Change	% Change
Monthly Service Charge	monthly	20.13	1	20.13	20.13	1	20.13	0.00	0.00%
Smart Meter Funding Adder	monthly		1	0.00	0.00	1	0.00	0.00	
Smart Meter - SMDR	monthly		1	0.00	12.51	1	12.51	12.51	
Smart Meter - SMIRR	monthly		1	0.00	7.11	1	7.11	7.11	
Distibution Volumetric Rate	per kWh	0.0197	2000	39.40	0.0197	2000	39.40	0.00	0.00%
Rate Rider for Dispostion of Global Adjustment	per kWh	0.0013	2000	2.60	0.0013	2000	2.60	0.00	0.00%
Deferral/Variance Account Dispostion Rate Rider (2010)	per kWh	(0.0018)	2000	(3.60)	(0.0018)	2000	(3.60)	0.00	0.00%
Deferral/Variance Account Dispostion Rate Rider (2012)	per kWh	(0.0027)	2000	(5.40)	(0.0027)	2000	(5.40)	0.00	0.00%
Sub-Total A - Distribution				53.13			72.75	19.62	36.92%
RTSR - Network	per kWh	0.0068	2090.8	14.22	0.0068	2090.8	14.22	0.00	0.00%
RTSR - Line and Transformation Connection	per kWh	0.0054	2090.8	11.29	0.0054	2090.8	11.29	0.00	0.00%
Sub-Total B - Delivery (including Sub-Total A)				78.64			98.25	19.62	24.95%
Wholesale Market Service Charge (WMSC)	per kWh	0.0052	2090.8	10.87	0.0052	2090.8	10.87	0.00	0.00%
Rural and Remote Rate Protection (RRRP)	per kWh	0.0011	2090.8	2.30	0.0011	2090.8	2.30	0.00	0.00%
Standard Supply Service Charge	monthly	0.25	1	0.25	0.25	1	0.25	0.00	0.00%
Debt Retirement Charge (DRC)	per kWh	0.0070	2,000	14.00	0.007	2,000	14.00	0.00	0.00%
Energy Average TOU Pricing	per kWh	0.0800	2,091	167.26	0.0800	2090.8	167.26	0.00	0.00%
Total Bill (before Taxes)				273.32			292.94	19.62	7.18%
HST		13%		35.53	13%		38.08	2.55	7.18%
Total Bill (including Sub-Total B)				308.86			331.02	22.17	7.18%
Ontario Clean Energy Benefit (OCEB)		-10%		(30.89)	-10%		(33.10)	(2.22)	7.18%
Total Bill (less OCEB)				277.97			297.92	19.95	7.18%
Loss Factor (%)		4.54%			4.54%				

*Note: Current Board-Approved rates for 2013

APPENDIX A

Letters of Comment & Responses

Susan Reffle

From: Susan Reffle
Sent: Tuesday, January 29, 2013 6:15 PM
To:
Subject: RE: EB-2012-0479 - Whitby Hydro - Smart meter disposition

Dear Mr. Fitchett,

Your comment to the Ontario Energy Board regarding Whitby Hydro's Smart Meter application has been forwarded to my attention. Our customers' concerns are important to Whitby Hydro and I have outlined some information that you may find useful with regards to the application.

I understand that you have some concerns with respect to the Smart Meter program. Similar to other businesses and regulated companies, Whitby Hydro must comply with government directives, Acts, Regulations and laws and furthermore with license conditions, codes, and guidelines of the regulator. The regulator helps to ensure that electricity consumers' interests are protected and that there is a process for consultation and review which allows interested parties to participate. The Ontario government made a decision to proceed with smart meters and electricity distributors (including Whitby Hydro) complied with the government and regulator's requirements for this initiative.

The Ontario government introduced smart meters and time-of-use pricing to help customers better manage and understand their electricity costs. Smart meters electronically track how much electricity is used and when it is used. As electricity prices vary at different times of the day, tracking of this information encourages individuals and businesses to think more about how and when electricity is used. The information provided by the smart meter, along with other available conservation information as well as local provincially sponsored conservation and demand management programs provide customers with tools that can help to reduce electricity demand and usage and the related costs. If you have further questions regarding the benefits and rationale for the government's decision on smart meters, you may be best served by directing them to the appropriate provincial government department (Ministry of Energy) either directly or through the regulator (the Ontario Energy Board).

Whitby Hydro is sensitive to costs and rate impacts for customers and has made efforts to manage costs for this initiative so as to limit rate impacts. As highlighted in the application, a sector review was undertaken in 2009 which provided average smart meter cost per meter results, and Whitby Hydro's came in much lower than the sector average (78.5% of the average per meter costs). The Ontario Energy Board has set up a process to address the smart meter costs, review their reasonability and set up a recovery process until such time as they can be included the regular rate process. In essence, these smart meter costs are treated no differently than the other costs we incur to operate our business, and the Ontario Energy Board, with the input of interested parties determine the reasonability of allowing these costs to be recovered in our rates. Without the recovery of costs necessary to run the business, Whitby Hydro would not be able to maintain financial stability, which would compromise its ability to serve its customers with a safe, reliable supply of electricity

I hope that this information has been of assistance. If you would like to participate in the application review process, information to do so has been provided in the published Notice of Application (Whitby This Week – January 23, 2013) and can also be found on our website along with a copy of the application http://www.whitbyhydro.on.ca/main.php?sec=electricCorp&tgt=02&sub=00 .

Regards,

Susan Reffle
Vice-President
Whitby Hydro Electric Corporation
Email: sreffle@whitbyhydro.on.ca
Phone: (905) 444-1983

From: Linda Carvalho [mailto:Linda.Carvalho@ontarioenergyboard.ca]
Sent: Monday, January 28, 2013 2:50 PM

To: Ramona Abi-Rashed; Susan Reffle
Subject: EB-2012-0479 - Whitby Hydro - Smart meter disposition

Good Afternoon,

Please see comment received regarding the above File EB-2012-0479.

Thanks!

Linda Carvalho
Case Administrator
Phone: 416-544-5188

From: Michelle Fitchett [redacted]
Sent: January-28-13 1:11 PM
To: BoardSec
Subject:

To;
Ontario Energy Board
Reference: EB-201200479

I do not feel that Whitby Hydro's request for cost recovery for smart meters is warranted. I did not ask for one and the meter has not helped me save energy or cost on my hydro bill. I have an economically efficient dishwasher, washing machine, fridge, air conditioner, and a tank less hot water heater. All my other appliances are natural gas and brand new. Now they want me to pay for a meter that i don't want or need. I had no choice and do not feel this is fair.

Sincerely,
John Fitchett

Susan Reffle

From: Susan Reffle
Sent: Wednesday, February 06, 2013 4:55 PM
To:
Subject: RE: GGMcKenzie_Comment_20130201

Dear Mr. and Mrs. Mckenzie,

Your comment to the Ontario Energy Board regarding Whitby Hydro's Smart Meter application has been forwarded to my attention. Our customers' concerns are important to Whitby Hydro and I have outlined some information that you may find useful with regards to the application.

I understand that you have some concerns with respect to the Smart Meter program. Similar to other businesses and regulated companies, Whitby Hydro must comply with government directives, Acts, Regulations and laws and furthermore with license conditions, codes, and guidelines of the regulator. The regulator helps to ensure that electricity consumers' interests are protected and that there is a process for consultation and review which allows interested parties to participate. The Ontario government made a decision to proceed with smart meters and electricity distributors (including Whitby Hydro) complied with the government and regulator's requirements for this initiative.

The Ontario government introduced smart meters and time-of-use pricing to help customers better manage and understand their electricity costs. Smart meters electronically track how much electricity is used and when it is used. As electricity prices vary at different times of the day, tracking of this information encourages individuals and businesses to think more about how and when electricity is used. The information provided by the smart meter, along with other available conservation information as well as local provincially sponsored conservation and demand management programs provide customers with tools that can help to reduce electricity demand and usage and the related costs. If you have further questions regarding the benefits and rationale for the government's decision on smart meters, you may be best served by directing them to the appropriate provincial government department (Ministry of Energy).

Whitby Hydro is sensitive to costs and rate impacts for customers and has made efforts to manage costs for this initiative so as to limit rate impacts. As highlighted in the application, a sector review was undertaken in 2009 which provided average smart meter cost per meter results, and Whitby Hydro's came in much lower than the sector average (78.5% of the average per meter costs). The Ontario Energy Board has set up a process to address the smart meter costs, review their reasonability and set up a recovery process until such time as they can be included the regular rate process. In essence, these smart meter costs are treated no differently than the other costs we incur to operate our business, and the Ontario Energy Board, with the input of interested parties determine the reasonability of allowing these costs to be recovered in our rates. Without the recovery of costs necessary to run the business, Whitby Hydro would not be able to maintain financial stability, which would compromise its ability to serve its customers with a safe, reliable supply of electricity

I hope that this information has been of assistance. If you would like to participate more actively in the application review process, information to do so has been provided in the published Notice of Application (Whitby This Week – January 23, 2013) and can also be found on our website along with a copy of the application
http://www.whitbyhydro.on.ca/main.php?sec=electricCorp&tgt=02&sub=00

Susan Reffle
Vice-President
Whitby Hydro Electric Corporation
Email: sreffle@whitbyhydro.on.ca
Phone: (905) 444-1983

From: Linda Carvalho [mailto:Linda.Carvalho@ontarioenergyboard.ca]
Sent: Friday, February 01, 2013 2:25 PM
To: Ramona Abi-Rashed; Susan Reffle
Subject: GGMcKenzie_Comment_20130201

Greta and Gary Mckenzie

Email: _____

EB-2012-0479

2/1/13

Board Secretary
Ontario Energy board
P.O. Box 2319
27th Floor Yonge Street
Toronto On
M4P 1E4

File Number EB-2012-0479

Dear Board Secretary:

Re: Whitby Hydro Electric Corporation (Whitby Hydro) application to change its delivery charges beginning May 1 2013.

Please take note we are **opposed** to such delivery charge changes being implemented at this time and in the foreseeable future.

It is our opinion that the concept of the "smart meters" has been in error from the beginning. The implementation of these meters is likely negatively affecting those who do not work outside the home.

For example, stay at home parents, retired people, seniors and shift workers must now co ordinate their chores such as running the dishwasher, vacuuming, baking, cooking, and using the dryer to be done during the hours of 7pm to 7am and on weekends/holidays If they wish to be prudent and keep their energy costs down.

In essence Whitby Hydro by way of the "Smart Meter" is now dictating when one should do the above chores! It would appear there are many more people working outside of the home then one would think, as this is the only group we can think of who would not be adversely affected by the Smart Meters as it's likely they are already on a "evening/weekend" chore schedule?

It is our understanding that the implementation of the smart meters was to assist with saving energy during peek hours, but I fail to see

why the general population should be targeted when big business is likely the biggest user (and potentially creates the biggest amount of energy waste/misuse).

The general population is still paying down the huge debt left by Ontario Hydro; I see no reason why we should now be paying for a system that has been implemented against our wishes?

The projected and total cost of the Smart Meters, including all installations and incidentals should have been on paper and presented to the necessary parties involved before the go ahead was given for the project. It is not the fault of the residents that the cost is more then anticipated and therefore it is not the responsibility of the residence to pay the added cost. You can't put a price on a product or service and then ask for more money after the product has been purchased or the service performed.

If the increase is approved, then what is to stop other costs being passed onto the consumer simply because of bad management in the finance department? This does not encourage those in the position of making such decisions to be accountable for the decisions they make.

The constant digging into the pocket of the consumer for errors in Judgement made by others should be illegal as should the implementation of HSTon services/products needed for our survival.

We therefore do not approve the reason behind the proposed increase to our Hydro Bill.

Sincerely;

Greta Mckenzie

Gary Mckenzie

Susan Reffle

From: Susan Reffle
Sent: Wednesday, February 06, 2013 5:32 PM
To:
Subject: RE: Whitby Hydro rate change application

Dear Mr. Meadwell,

The Ontario Energy Board has passed your comments along to Whitby Hydro and we appreciate this feedback.

The smart meter initiative was mandated by the provincial government and Whitby Hydro (as a regulated electricity distributor) was required to comply with legislation and regulations which required the installation of smart meters in all residential and small business customers. Whitby Hydro is sensitive to costs and rate impacts for customers and has made efforts to manage costs for this initiative so as to limit rate impacts. As highlighted in the application, a sector review was undertaken in 2009 which provided average smart meter cost per meter results, and Whitby Hydro's came in much lower than the sector average (78.5% of the average per meter costs). The Ontario Energy Board has set up a process to address the smart meter costs, review their reasonability and set up a recovery process until such time as they can be included the regular rate process. In essence, these smart meter costs are treated no differently than the other costs we incur to operate our business, and the Ontario Energy Board, with the input of interested parties determine the reasonability of allowing these costs to be recovered in our rates. Without the recovery of costs necessary to run the business, Whitby Hydro would not be able to maintain financial stability, which would compromise its ability to serve its customers with a safe, reliable supply of electricity.

I understand that you are making efforts to shift the use of electrical devices to off-peak times and this is beneficial to help reduce the need for new generation (which is costly). The time-of-use pricing structure is designed to incent customers to introduce (or in your case continue) conservation measures in order to keep costs lower than what they would otherwise be, if those efforts were not undertaken.

I hope that this information has been of assistance. If you would like to participate more actively in the application review process, information to do so has been provided in the published Notice of Application (Whitby This Week – January 23, 2013) and can also be found on our website along with a copy of the application http://www.whitbyhydro.on.ca/main.php?sec=electricCorp&tgt=02&sub=00 .

Regards,

Susan Reffle
Vice-President
Whitby Hydro Electric Corporation
Email: sreffle@whitbyhydro.on.ca
Phone: (905) 444-1983

From: Scott Meadwell [mailto:[redacted]]
Sent: Friday, February 01, 2013 4:14 PM
To: 'boardsec@ontarioenergyboard.ca'; Ramona Abi-Rashed
Cc: Scott Meadwell
Subject: Whitby Hydro rate change application

Dear Kirsten,

I'm sure the issue is beyond my lone voice meaning much but I have to comment just in case.

I find this application to be a second kick to the consumer on the same issue. Initially we were told that smart meters would permit the consumer to use electrical devices during off-peak hours and save money. I can tell you that my wife and I make every effort to delay the dishwasher and laundry until off-peak hours and have made extra efforts to make sure all lights are off etc.. It seems futile. There is no noticeable change. It's similar to when I replaced all my incandescent bulbs at great cost as I was assured that the savings would pay for the switch inside a year. Again, no savings were noticeable on my bill.

Now, the program that was supposed to save you money but didn't, wants to charge you yet even more for the cost of the meter!! How is this possible that the "free" meters can now suddenly require the consumer to pay more given that we are already paying more? I could maybe understand it if the utility had expected to make money with them but didn't. That would throw their accounting out of whack. But to tell us that we will save money AND get the meters for free, begs the question of "so why do we now have to pay for them when you made more than forecasted?"

I guess to be fair, Whitby Hydro said that we, the consumers, would be able to "take action to manage our electricity bills" with the new smart meters. I guess that was a clever way of saying nothing while implying that our actions and choices could save us money when in fact they can't. At least not in any meaningful way or without a complete disruption to our lives. That wasn't in the pamphlet.

In their pamphlet they said this charge wouldn't happen: Cut and pasted from http://www.whitbyhydro.on.ca/pdf/WHSmartMeterAnswerBookr3.pdf

Will I see a SMART METER charge on my bill?
The cost of the SMART METER initiative will be recovered through the electricity rates paid by all customers in the same way that costs for existing meters and services are recovered today.

What did that mean? It sounded an awful lot like "NO, it won't cost you money", but if you read it a few hundred times it didn't really say that did it? Who writes this stuff and how much did you pay them to stop working for Stephen Harper?

Will I see lower electricity bills?
With Time-of-Use rates, you'll see the results of your conservation efforts – and **you'll save money if** you shift your heaviest electricity use to off-peak hours. Equipment like air conditioners, electrical heating, space and water heating, as well as ovens, dryers and lighting, for example, can use a great deal of energy.

They do neglect to tell you that this is all but impossible. The increased rate during the day makes the slightly decreased rate at night unable to offset the price change.

So, as you see, this is a second kick to the consumer. For the record, the price increase is for 20 months. If and when it is approved, the ink won't be dry on your acceptance letter before they file to extend those 20 months to forever citing some unforeseen need. You heard it here first.

Regards,

Scott Meadwell,

Susan Reffle

From: Susan Reffle
Sent: Tuesday, January 29, 2013 6:20 PM
To:
Subject: RE: Regarding Whitby Hydro Application for Rate Increase

Dear Mr. Rusonik,

Your comment to the Ontario Energy Board regarding Whitby Hydro's Smart Meter application has been forwarded to my attention. Our customers' concerns are important to Whitby Hydro and I have outlined some information that you may find useful with regards to the application.

I understand that you have some concerns with respect to the Smart Meter program. Similar to other businesses and regulated companies, Whitby Hydro must comply with government directives, Acts, Regulations and laws and furthermore with license conditions, codes, and guidelines of the regulator. The regulator helps to ensure that electricity consumers' interests are protected and that there is a process for consultation and review which allows interested parties to participate. The Ontario government made a decision to proceed with smart meters and electricity distributors (including Whitby Hydro) complied with the government and regulator's requirements for this initiative.

The Ontario government introduced smart meters and time-of-use pricing to help customers better manage and understand their electricity costs. Smart meters electronically track how much electricity is used and when it is used. As electricity prices vary at different times of the day, tracking of this information encourages individuals and businesses to think more about how and when electricity is used. The information provided by the smart meter, along with other available conservation information as well as local provincially sponsored conservation and demand management programs provide customers with tools that can help to reduce electricity demand and usage and the related costs. If you have further questions regarding the benefits and rationale for the government's decision on smart meters, you may be best served by directing them to the appropriate provincial government department (Ministry of Energy) either directly or through the regulator (the Ontario Energy Board).

Whitby Hydro is sensitive to costs and rate impacts for customers and has made efforts to manage costs for this initiative so as to limit rate impacts. As highlighted in the application, a sector review was undertaken in 2009 which provided average smart meter cost per meter results, and Whitby Hydro's came in much lower than the sector average (78.5% of the average per meter costs). The Ontario Energy Board has set up a process to address the smart meter costs, review their reasonability and set up a recovery process until such time as they can be included the regular rate process. In essence, these smart meter costs are treated no differently than the other costs we incur to operate our business, and the Ontario Energy Board, with the input of interested parties determine the reasonability of allowing these costs to be recovered in our rates. Without the recovery of costs necessary to run the business, Whitby Hydro would not be able to maintain financial stability, which would compromise its ability to serve its customers with a safe, reliable supply of electricity

I hope that this information has been of assistance. If you would like to participate in the application review process, information to do so has been provided in the published Notice of Application (Whitby This Week – January 23, 2013) and can also be found on our website along with a copy of the application http://www.whitbyhydro.on.ca/main.php?sec=electricCorp&tgt=02&sub=00 .

Regards,

Susan Reffle
Vice-President
Whitby Hydro Electric Corporation
Email: sreffle@whitbyhydro.on.ca
Phone: (905) 444-1983

From: Anthony Rusonik
Sent: Wednesday, January 23, 2013 10:15 PM
To: Ramona Abi-Rashed; BOARDSEC@ONTARIOENERGYBOARD.CA
Subject: Regarding Whitby Hydro Application for Rate Increase

To Whom it May Concern,

It is difficult to miss a one-page newspaper advertisement where Whitby Hydro applies for a rate increase. Yet, at the same time, it is impossible to find in the same the rationale or justification for the increase.

All we have is one page of process and legal documentation.

So, even though you have a monopoly, and even though you will just do as you please regardless, I will be silly enough to lend credibility to this exercise and take the time to ask:

Has the cost of energy to Whitby Hydro increased ? Has the volume of energy demand increased ? Or has the cost of wages and operations increased ? I very much doubt the latter, since nobody I know has received a wage or salary increase the last couple of years.

Either way, I guess it doesn't matter as Hydro is the only corporation in the Western world that has ever levied a "debt retirement charge" to the Customer, as though we had any option but to pay it in the absence of a competitor.

Hydro is the only organization in the Western world not bound by any service SLA: if the power goes out, the meter stops. That's all . There is no service definition, guarantee of up-time, or compensation for an outage.

No accountability whatsoever.

But , go ahead, do as you like. Even if a 100 people write in, you will just do as you please.

Anthony Rusonik

30/1/13

ONTARIO ENERGY BOARD

PO Box 2319

27th floor

2300 Yonge Street

Toronto, Ontario.

M4P 1E4

Attention Board Secretary re: file number EB-2012-0479

We do not agree with another increase in the hydro in the Whitby area. We were forced to have the " Smart Meter" installed and are forced to use energy at " low use" times. As pensioners this is not only inconvenient but do we have to pay for these meters too?

Yours truly,

Dennis and Penney Stevens

[redacted]

APPENDIX B

REVISED SMART METER MODEL (BOARD STAFF IRR #14)

Smart Meter Model for Electricity Distributors (2013 Filers)

Version **3.01WH**

Utility Name	Whitby Hydro Electric Corporation
Assigned EB Number	EB-2012-0479
Name and Title	Ramona Abi-Rashed
Phone Number	905 668-5878
Email Address	rabirashed@whitbyhydro.on.ca
Date	1-Mar-13
Last COS Re-based Year	**2011**

Note: Drop-down lists are shaded blue; Input cells are shaded green.

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.

Smart Meter Model for Electricity Distributors (2013 Filers)

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

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

Smart Meter Capital Cost and Operational Expense Data	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast	Total
Smart Meter Installation Plan									
Actual/Planned number of Smart Meters installed during the Calendar Year									
Residential				2,269	33,891	1,760	604		38524
General Service < 50 kW				79	271	1,706	41		2097
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	2348	34162	3466	645	0	40621
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	5.78%	89.88%	98.41%	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	2348	34162	3466	645	0	40621

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 Forecast	2013 Forecast		Total
1.1.1 Smart Meters *(may include new meters and modules, etc.)*	Smart Meter	0	0	0	255,115	2,767,449	627,136	47,317	0	$	3,697,017
1.1.2 Installation Costs *(may include socket kits, labour, vehicle, benefits, etc.)*	Smart Meter	0	0	0	117,989	441,273	340,109	57,559	0	$	956,929
1.1.3a Workforce Automation Hardware *(may include fieldwork handhelds, barcode hardware, etc.)*	Computer Hardware	0	0	0	11,811	7,548	0	0	0	$	19,359
1.1.3b Workforce Automation Software *(may include fieldwork handhelds, barcode hardware, etc.)*	Computer Software	0	0	24,030	19,431	28,297	0	0	0	$	71,759
Total Advanced Metering Communications Devices (AMCD)		$ -	$ -	$ 24,030	$ 404,346	$ 3,244,566	$ 967,245	$ 104,876	$ -	$	4,745,064

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 Forecast	2013 Forecast		Total
1.2.1 Collectors	Other Equipment	0	0	302,400	0	0	0	0	0	$	302,400
1.2.2 Repeaters *(may include radio licence, etc.)*										$	-
1.2.3 Installation *(may include meter seals and rings, collector computer hardware, etc.)*	Other Equipment	0	0	9,765	0	0	0	0	0	$	9,765
Total Advanced Metering Regional Collector (AMRC) (Includes LAN)		$ -	$ -	$ 312,165	$ -	$ -	$ -	$ -	$ -	$	312,165

Smart Meter Capital Cost and Operational Expense Data

		2006	2007	2008	2009	2010	2011	2012	2013	Total
		Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)	**Asset Type**	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
1.3.1 Computer Hardware	Computer Hardware	0	0	0	0	136,799	0	0	0	$ 136,799
1.3.2 Computer Software	Computer Software	0	0	0	0	0	0	0	0	$ -
1.3.3 Computer Software Licences & Installation (includes hardware and software) *(may include AS/400 disk space, backup and recovery computer, UPS, etc.)*	Computer Software	0	0	0	0	0	0	0	0	$ -
Total Advanced Metering Control Computer (AMCC)		$ -	$ -	$ -	$ -	$ 136,799	$ -	$ -	$ -	$ 136,799
1.4 WIDE AREA NETWORK (WAN)	**Asset Type**	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
1.4.1 Activiation Fees	Other Equipment	0	0	0	0	0	0	0	0	$ -
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	Forecast	
1.5.1 Customer Equipment *(including repair of damaged equipment)*	Other Equipment	0	0	0	74,776	58,871	63,265	11,619	0	$ 208,531
1.5.2 AMI Interface to CIS	Computer Software	0	0	0	0	0	0	0	0	$ -
1.5.3 Professional Fees	Computer Software	0	0	119,489	33,275	49,588	14,103	0	0	$ 216,455
1.5.4 Integration	Computer Software	0	0	0	34,136	38,384	0	0	0	$ 72,520
1.5.5 Program Management	Computer Software	0	0	150,816	70,445	43,934	0	0	0	$ 265,195
1.5.6 Other AMI Capital	Other Equipment	0	0	0	0	7,555	0	0	0	$ 7,555
Total Other AMI Capital Costs Related to Minimum Functionality		$ -	$ -	$ 270,305	$ 212,632	$ 198,332	$ 77,368	$ 11,619	$ -	$ 770,256
Total Capital Costs Related to Minimum Functionality		$ -	$ -	$ 606,500	$ 616,978	$ 3,579,697	$ 1,044,613	$ 116,495	$ -	$ 5,964,283
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	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	0	0	0	0	0	0	0	0	$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service	Applications Software	0	0	0	0	0	0	0	0	$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.	Applications Software	0	0	0	0	9,378	189,840	37,870	0	$ 237,087
Total Capital Costs Beyond Minimum Functionality		$ -	$ -	$ -	$ -	$ 9,378	$ 189,840	$ 37,870	$ -	$ 237,087
Total Smart Meter Capital Costs		$ -	$ -	$ 606,500	$ 616,978	$ 3,589,075	$ 1,234,453	$ 154,365	$ -	$ 6,201,371

Smart Meter Capital Cost and Operational Expense Data
2 OM&A Expenses

	2006	2007	2008	2009	2010	2011	2012	2013	Total
	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
2.1.1 Maintenance *(may include meter reverification costs, etc.)*	0	0	0	0	0	0	0	0	$ -
2.1.2 Other *(please specifiy)*	0	0	0	0	24,634	73,049	69,963	80,000	$ 247,646
Total Incremental AMCD OM&A Costs	$ -	$ -	$ -	$ -	$ 24,634	$ 73,049	$ 69,963	$ 80,000	$ 247,646
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)									
2.2.1 Maintenance	0	0	0	48,582	50,011	36,077	59,138	51,000	$ 244,808
2.2.2 Other *(please specifiy)*	0	0	0	0	0	0	0	0	$ -
Total Incremental AMRC OM&A Costs	$ -	$ -	$ -	$ 48,582	$ 50,011	$ 36,077	$ 59,138	$ 51,000	$ 244,808
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)									
2.3.1 Hardware Maintenance *(may include server support, etc.)*	0	0	0	0	0	0	0	0	$ -
2.3.2 Software Maintenance *(may include maintenance support, etc.)*	0	0	0	0	0	0	0	0	$ -
2.3.2 Other *(please specifiy)*	0	0	0	0	0	27,216	44,613	42,000	$ 113,829
Total Incremental AMCC OM&A Costs	$ -	$ -	$ -	$ -	$ -	$ 27,216	$ 44,613	$ 42,000	$ 113,829
2.4 WIDE AREA NETWORK (WAN)									
2.4.1 WAN Maintenance	0	0	0	0	0	0	0	0	$ -
2.4.2 Other *(please specifiy)*	0	0	0	0	0	0	0	0	$ -
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	0	0	$ -
2.5.2 Customer Communication (may include project communication, etc.)	0	0	0	0	11,066	0	0	0	$ 11,066
2.5.3 Program Management	0	0	0	0	0	0	0	0	$ -
2.5.4 Change Management (may include training, etc.)	0	0	0	0	0	0	0	0	$ -
2.5.5 Administration Costs	0	0	0	0	0	0	0	0	$ -
2.5.6 Other AMI Expenses *(please specify)*	0	0	0	2,260	12,274	12,759	6,575	16,000	$ 49,868
Total Other AMI OM&A Costs Related to Minimum Functionality	$ -	$ -	$ -	$ 2,260	$ 23,340	$ 12,759	$ 6,575	$ 16,000	$ 60,934
TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	$ -	$ -	$ -	$ 50,842	$ 97,985	$ 149,101	$ 180,289	$ 189,000	$ 667,217
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	0	0	0	0	0	0	0	0	$ -
2.6.2 Costs for deployment of smart meters to customers other than residential and small general service	0	0	0	0	0	0	0	0	$ -
2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.	0	0	0	0	0	73,169	88,808	122,000	$ 283,977
Total OM&A Costs Beyond Minimum Functionality	$ -	$ -	$ -	$ -	$ -	$ 73,169	$ 88,808	$ 122,000	$ 283,977
Total Smart Meter OM&A Costs	$ -	$ -	$ -	$ 50,842	$ 97,985	$ 222,270	$ 269,097	$ 311,000	$ 951,194

Smart Meter Capital Cost and Operational Expense Data		2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast	Total
3 Aggregate Smart Meter Costs by Category										
3.1	**Capital**									
3.1.1	Smart Meter	$ -	$ -	$ -	$ 373,104	$ 3,208,721	$ 967,245	$ 104,876	$ -	$ 4,653,946
3.1.2	Computer Hardware	$ -	$ -	$ -	$ 11,811	$ 144,347	$ -	$ -	$ -	$ 156,158
3.1.3	Computer Software	$ -	$ -	$ 294,335	$ 157,287	$ 160,203	$ 14,104	$ -	$ -	$ 625,929
3.1.4	Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3.1.5	Other Equipment	$ -	$ -	$ 312,165	$ 74,776	$ 66,426	$ 63,265	$ 11,619	$ -	$ 528,251
3.1.6	Applications Software	$ -	$ -	$ -	$ -	$ 9,378	$ 189,840	$ 37,870	$ -	$ 237,087
3.1.7	**Total Capital Costs**	**$ -**	**$ -**	**$ 606,500**	**$ 616,978**	**$ 3,589,075**	**$ 1,234,453**	**$ 154,365**	**$ -**	**$ 6,201,371**
3.2	**OM&A Costs**									
3.2.1	**Total OM&A Costs**	**$ -**	**$ -**	**$ -**	**$ 50,842**	**$ 97,985**	**$ 222,270**	**$ 269,097**	**$ 311,000**	**$ 951,194**

Smart Meter Model for Electricity Distributors (2013 Filers)

	2006	2007	2008	2009	2010	2011	2012	2013
Cost of Capital								
Capital Structure[1]								
Deemed Short-term Debt Capitalization						4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	56.7%	56.0%	56.0%	56.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	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%	100.0%
Cost of Capital Parameters								
Deemed Short-term Debt Rate						2.43%	2.43%	2.43%
Long-term Debt Rate (actual/embedded/deemed)[2]	7.25%	7.25%	7.25%	7.25%	7.25%	5.48%	5.48%	5.48%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.00%	9.66%	9.66%	9.66%
Return on Preferred Shares								
WACC	8.13%	8.13%	8.07%	8.01%	8.01%	7.03%	7.03%	7.03%
Working Capital Allowance								
Working Capital Allowance Rate	15.0%	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%	33.00%	31.00%	28.25%	26.50%	26.50%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%	0.00%

	2006	2007	2008	2009	2010	2011	2012	2013
Depreciation Rates								
(expressed as expected useful life in years)								
Smart Meters - years	15	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years	5	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years	5	5	5	5	5	5	5	5
- rate (%)	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Tools & Equipment - years	10	10	10	10	10	10	10	10
- rate (%)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years	15	15	15	15	15	15	15	15
- rate (%)	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
CCA Rates								
Smart Meters - CCA Class	8	8	8	8	8	8	8	8
Smart Meters - CCA Rate	20%	20%	20%	20%	20%	20%	20%	20%
Computer Equipment - CCA Class	50	50	50	50	50	50	50	50
Computer Equipment - CCA Rate	55%	55%	55%	55%	55%	55%	55%	55%
General Equipment - CCA Class	8	8	8	8	8	8	8	8
General Equipment - CCA Rate	20%	20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class	12	12	12	12	12	12	12	12
Applications Software - CCA Rate	100%	100%	100%	100%	100%	100%	100%	100%

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.*

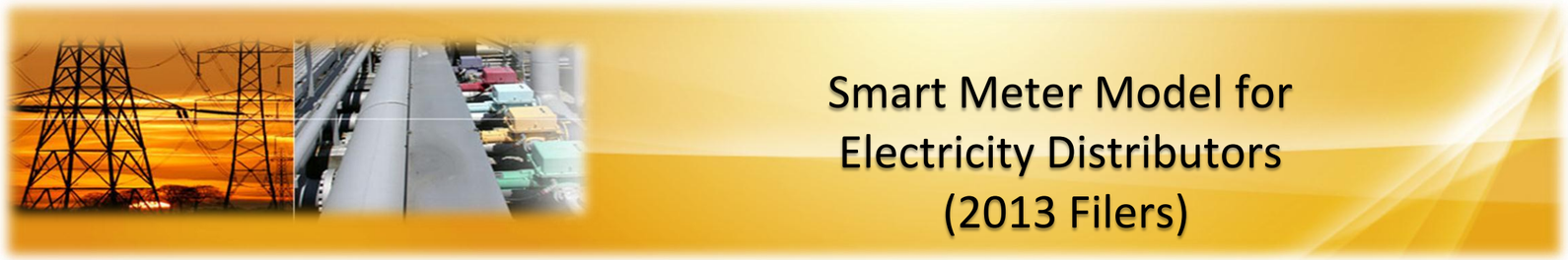
Smart Meter Model for Electricity Distributors (2013 Filers)

	2006	2007	2008	2009	2010	2011	2012	2013
Net Fixed Assets - Smart Meters								
Gross Book Value								
Opening Balance		$ -	$ -	$ -	$ 373,104	$ 3,581,825	$ 4,549,070	$ 4,653,946
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ 373,104	$ 3,208,721	$ 967,245	$ 104,876	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ 373,104	$ 3,581,825	$ 4,549,070	$ 4,653,946	$ 4,653,946
Accumulated Depreciation								
Opening Balance		$ -	$ -	$ -	-$ 12,437	-$ 144,268	-$ 415,298	-$ 722,065
Amortization expense during year	$ -	$ -	$ -	-$ 12,437	-$ 131,831	-$ 271,030	-$ 306,767	-$ 310,263
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	-$ 12,437	-$ 144,268	-$ 415,298	-$ 722,065	-$ 1,032,328
Net Book Value								
Opening Balance	$ -	$ -	$ -	$ -	$ 360,667	$ 3,437,557	$ 4,133,772	$ 3,931,881
Closing Balance	$ -	$ -	$ -	$ 360,667	$ 3,437,557	$ 4,133,772	$ 3,931,881	$ 3,621,618
Average Net Book Value	$ -	$ -	$ -	$ 180,334	$ 1,899,112	$ 3,785,665	$ 4,032,827	$ 3,776,750
Net Fixed Assets - Computer Hardware								
Gross Book Value								
Opening Balance		$ -	$ -	$ -	$ 11,811	$ 156,158	$ 156,158	$ 156,158
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ 11,811	$ 144,347	$ -	$ -	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ 11,811	$ 156,158	$ 156,158	$ 156,158	$ 156,158
Accumulated Depreciation								
Opening Balance	$ -	$ -	$ -	$ -	-$ 1,181	-$ 17,978	-$ 49,210	-$ 80,441
Amortization expense during year	$ -	$ -	$ -	-$ 1,181	-$ 16,797	-$ 31,232	-$ 31,232	-$ 31,232
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	-$ 1,181	-$ 17,978	-$ 49,210	-$ 80,441	-$ 111,673
Net Book Value								
Opening Balance	$ -	$ -	$ -	$ -	$ 10,630	$ 138,180	$ 106,948	$ 75,717
Closing Balance	$ -	$ -	$ -	$ 10,630	$ 138,180	$ 106,948	$ 75,717	$ 44,485
Average Net Book Value	$ -	$ -	$ -	$ 5,315	$ 74,405	$ 122,564	$ 91,332	$ 60,101

	2006	2007	2008	2009	2010	2011	2012	2013
Net Fixed Assets - Computer Software (including Applications Software)								
Gross Book Value								
Opening Balance		$ -	$ -	$ 294,335	$ 451,622	$ 621,203	$ 825,146	$ 863,016
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ 294,335	$ 157,287	$ 169,581	$ 203,943	$ 37,870	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ 294,335	$ 451,622	$ 621,203	$ 825,146	$ 863,016	$ 863,016
Accumulated Depreciation								
Opening Balance	$ -	$ -	$ -	-$ 29,434	-$ 104,029	-$ 211,312	-$ 355,947	-$ 524,763
Amortization expense during year	$ -	$ -	-$ 29,434	-$ 74,596	-$ 107,283	-$ 144,635	-$ 168,816	-$ 172,603
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	-$ 29,434	-$ 104,029	-$ 211,312	-$ 355,947	-$ 524,763	-$ 697,366
Net Book Value								
Opening Balance	$ -	$ -	$ -	$ 264,902	$ 347,593	$ 409,891	$ 469,200	$ 338,253
Closing Balance	$ -	$ -	$ 264,902	$ 347,593	$ 409,891	$ 469,200	$ 338,253	$ 165,650
Average Net Book Value	$ -	$ -	$ 132,451	$ 306,247	$ 378,742	$ 439,546	$ 403,727	$ 251,952
Net Fixed Assets - Tools and Equipment								
Gross Book Value								
Opening Balance		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Accumulated Depreciation								
Opening Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Amortization expense during year	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Book Value								
Opening Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Average Net Book Value	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Fixed Assets - Other Equipment								
Gross Book Value								
Opening Balance		$ -	$ -	$ 312,165	$ 386,941	$ 453,367	$ 516,632	$ 528,251
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ 312,165	$ 74,776	$ 66,426	$ 63,265	$ 11,619	$ -
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ 312,165	$ 386,941	$ 453,367	$ 516,632	$ 528,251	$ 528,251
Accumulated Depreciation								
Opening Balance	$ -	$ -	$ -	-$ 10,406	-$ 33,709	-$ 61,719	-$ 94,053	-$ 128,882
Amortization expense during year	$ -	$ -	-$ 10,406	-$ 23,304	-$ 28,010	-$ 32,333	-$ 34,829	-$ 35,217
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	-$ 10,406	-$ 33,709	-$ 61,719	-$ 94,053	-$ 128,882	-$ 164,099
Net Book Value								
Opening Balance	$ -	$ -	$ -	$ 301,760	$ 353,232	$ 391,648	$ 422,579	$ 399,369
Closing Balance	$ -	$ -	$ 301,760	$ 353,232	$ 391,648	$ 422,579	$ 399,369	$ 364,152
Average Net Book Value	$ -	$ -	$ 150,880	$ 327,496	$ 372,440	$ 407,113	$ 410,974	$ 381,760

Smart Meter Model for Electricity Distributors (2013 Filers)

	2006	2007	2008	2009	2010	2011	2012	2013
Average Net Fixed Asset Values (from Sheet 4)								
Smart Meters	$ -	$ -	$ -	$ 180,334	$ 1,899,112	$ 3,785,665	$ 4,032,827	$ 3,776,750
Computer Hardware	$ -	$ -	$ -	$ 5,315	$ 74,405	$ 122,564	$ 91,332	$ 60,101
Computer Software	$ -	$ -	$ 132,451	$ 306,247	$ 378,742	$ 439,546	$ 403,727	$ 251,952
Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Equipment	$ -	$ -	$ 150,880	$ 327,496	$ 372,440	$ 407,113	$ 410,974	$ 381,760
Total Net Fixed Assets	**$ -**	**$ -**	**$ 283,331**	**$ 819,391**	**$ 2,724,699**	**$ 4,754,888**	**$ 4,938,860**	**$ 4,470,563**
Working Capital								
Operating Expenses (from Sheet 2)	$ -	$ -	$ -	$ 50,842	$ 97,985	$ 222,270	$ 269,097	$ 311,000
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	$ -	$ -	$ -	$ 7,626	$ 14,698	$ 33,341	$ 40,365	$ 46,650
Incremental Smart Meter Rate Base	**$ -**	**$ -**	**$ 283,331**	**$ 827,018**	**$ 2,739,397**	**$ 4,788,228**	**$ 4,979,224**	**$ 4,517,213**
Return on Rate Base								
Capital Structure								
Deemed Short Term Debt	$ -	$ -	$ -	$ -	$ -	$ 191,529	$ 199,169	$ 180,689
Deemed Long Term Debt	$ -	$ -	$ 151,015	$ 468,919	$ 1,553,238	$ 2,681,408	$ 2,788,366	$ 2,529,639
Equity	$ -	$ -	$ 132,315	$ 358,099	$ 1,186,159	$ 1,915,291	$ 1,991,690	$ 1,806,885
Preferred Shares	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Capitalization	$ -	$ -	$ 283,331	$ 827,018	$ 2,739,397	$ 4,788,228	$ 4,979,224	$ 4,517,213
Return on								
Deemed Short Term Debt	$ -	$ -	$ -	$ -	$ -	$ 4,654	$ 4,840	$ 4,391
Deemed Long Term Debt	$ -	$ -	$ 10,949	$ 33,997	$ 112,610	$ 146,941	$ 152,802	$ 138,624
Equity	$ -	$ -	$ 11,908	$ 32,229	$ 106,754	$ 185,017	$ 192,397	$ 174,545
Preferred Shares	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Return on Capital	$ -	$ -	$ 22,857	$ 66,226	$ 219,364	$ 336,612	$ 350,039	$ 317,560
Operating Expenses	$ -	$ -	$ -	$ 50,842	$ 97,985	$ 222,270	$ 269,097	$ 311,000
Amortization Expenses (from Sheet 4)								
Smart Meters	$ -	$ -	$ -	$ 12,437	$ 131,831	$ 271,030	$ 306,767	$ 310,263
Computer Hardware	$ -	$ -	$ -	$ 1,181	$ 16,797	$ 31,232	$ 31,232	$ 31,232
Computer Software	$ -	$ -	$ 29,434	$ 74,596	$ 107,283	$ 144,635	$ 168,816	$ 172,603
Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Equipment	$ -	$ -	$ 10,406	$ 23,304	$ 28,010	$ 32,333	$ 34,829	$ 35,217
Total Amortization Expense in Year	$ -	$ -	$ 39,839	$ 111,517	$ 283,921	$ 479,230	$ 541,644	$ 549,315
Incremental Revenue Requirement before Taxes/PILs	$ -	$ -	$ 62,696	$ 228,585	$ 601,270	$ 1,038,112	$ 1,160,781	$ 1,177,875
Calculation of Taxable Income								
Incremental Operating Expenses	$ -	$ -	$ -	$ 50,842	$ 97,985	$ 222,270	$ 269,097	$ 311,000
Amortization Expense	$ -	$ -	$ 39,839	$ 111,517	$ 283,921	$ 479,230	$ 541,644	$ 549,315
Interest Expense	$ -	$ -	$ 10,949	$ 33,997	$ 112,610	$ 151,595	$ 157,642	$ 143,015
Net Income for Taxes/PILs	$ -	$ -	$ 11,908	$ 32,229	$ 106,754	$ 185,017	$ 192,397	$ 174,545
Grossed-up Taxes/PILs (from Sheet 7)	$ -	$ -	-$ 29,157.74	-$ 57,233.85	-$ 118,512.28	-$ 160,571.23	-$ 76,998.23	$ 20,152.29
Revenue Requirement, including Grossed-up Taxes/PILs	$ -	$ -	$ 33,538	$ 171,351	$ 482,757	$ 877,541	$ 1,083,783	$ 1,198,027



For PILs Calculation

UCC - Smart Meters

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast
Opening UCC	$ -	$ -	$ -	$ -	$ 335,793.60	$ 3,156,483.78	$ 3,395,707.52	$ 2,810,954.33
Capital Additions	$ -	$ -	$ -	$ 373,104.00	$ 3,208,721.00	$ 967,245.00	$ 104,875.91	$ -
Retirements/Removals (if applicable)								
UCC Before Half Year Rule	$ -	$ -	$ -	$ 373,104.00	$ 3,544,514.60	$ 4,123,728.78	$ 3,500,583.43	$ 2,810,954.33
Half Year Rule (1/2 Additions - Disposals)	$ -	$ -	$ -	$ 186,552.00	$ 1,604,360.50	$ 483,622.50	$ 52,437.95	$ -
Reduced UCC	$ -	$ -	$ -	$ 186,552.00	$ 1,940,154.10	$ 3,640,106.28	$ 3,448,145.48	$ 2,810,954.33
CCA Rate Class	8	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%	20%
CCA	$ -	$ -	$ -	$ 37,310.40	$ 388,030.82	$ 728,021.26	$ 689,629.10	$ 562,190.87
Closing UCC	$ -	$ -	$ -	$ 335,793.60	$ 3,156,483.78	$ 3,395,707.52	$ 2,810,954.33	$ 2,248,763.47

UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast
Opening UCC	$ -	$ -	$ -	$ 213,392.88	$ 218,622.84	$ 319,179.06	$ 153,855.63	$ 69,235.04
Capital Additions Computer Hardware	$ -	$ -	$ -	$ 11,811.00	$ 144,346.70	$ -	$ -	$ -
Capital Additions Computer Software	$ -	$ -	$ 294,335.00	$ 157,287.00	$ 160,203.34	$ 14,103.53	$ -	$ -
Retirements/Removals (if applicable)								
UCC Before Half Year Rule	$ -	$ -	$ 294,335.00	$ 382,490.88	$ 523,172.88	$ 333,282.59	$ 153,855.63	$ 69,235.04
Half Year Rule (1/2 Additions - Disposals)	$ -	$ -	$ 147,167.50	$ 84,549.00	$ 152,275.02	$ 7,051.76	$ -	$ -
Reduced UCC	$ -	$ -	$ 147,167.50	$ 297,941.88	$ 370,897.86	$ 326,230.82	$ 153,855.63	$ 69,235.04
CCA Rate Class	50	50	50	50	50	50	50	50
CCA Rate	55%	55%	55%	55%	55%	55%	55%	55%
CCA	$ -	$ -	$ 80,942.13	$ 163,868.03	$ 203,993.83	$ 179,426.95	$ 84,620.60	$ 38,079.27
Closing UCC	$ -	$ -	$ 213,392.88	$ 218,622.84	$ 319,179.06	$ 153,855.63	$ 69,235.04	$ 31,155.77

UCC - General Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast
Opening UCC	$ -	$ -	$ -	$ 280,948.50	$ 292,057.20	$ 293,429.16	$ 291,681.50	$ 243,802.45
Capital Additions Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Capital Additions Other Equipment	$ -	$ -	$ 312,165.00	$ 74,776.00	$ 66,426.00	$ 63,264.64	$ 11,619.16	$ -
Retirements/Removals (if applicable)								
UCC Before Half Year Rule	$ -	$ -	$ 312,165.00	$ 355,724.50	$ 358,483.20	$ 356,693.80	$ 303,300.66	$ 243,802.45
Half Year Rule (1/2 Additions - Disposals)	$ -	$ -	$ 156,082.50	$ 37,388.00	$ 33,213.00	$ 31,632.32	$ 5,809.58	$ -
Reduced UCC	$ -	$ -	$ 156,082.50	$ 318,336.50	$ 325,270.20	$ 325,061.48	$ 297,491.08	$ 243,802.45
CCA Rate Class	8	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%	20%
CCA	$ -	$ -	$ 31,216.50	$ 63,667.30	$ 65,054.04	$ 65,012.30	$ 59,498.22	$ 48,760.49
Closing UCC	$ -	$ -	$ 280,948.50	$ 292,057.20	$ 293,429.16	$ 291,681.50	$ 243,802.45	$ 195,041.96

UCC - Applications Software

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast
Opening UCC	$ -	$ -	$ -	$ -	$ -	$ 4,688.83	$ 94,919.92	$ 18,934.95
Capital Additions Applications Software	$ -	$ -	$ -	$ -	$ 9,377.66	$ 189,839.83	$ 37,869.90	$ -
Retirements/Removals (if applicable)								
UCC Before Half Year Rule	$ -	$ -	$ -	$ -	$ 9,377.66	$ 194,528.66	$ 132,789.82	$ 18,934.95
Half Year Rule (1/2 Additions - Disposals)	$ -	$ -	$ -	$ -	$ 4,688.83	$ 94,919.92	$ 18,934.95	$ -
Reduced UCC	$ -	$ -	$ -	$ -	$ 4,688.83	$ 99,608.75	$ 113,854.87	$ 18,934.95
CCA Rate Class	12	12	12	12	12	12	12	12
CCA Rate	100%	100%	100%	100%	100%	100%	100%	100%
CCA	$ -	$ -	$ -	$ -	$ 4,688.83	$ 99,608.75	$ 113,854.87	$ 18,934.95
Closing UCC	$ -	$ -	$ -	$ -	$ 4,688.83	$ 94,919.92	$ 18,934.95	$ -

Smart Meter Model for Electricity Distributors (2013 Filers)

PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast
INCOME TAX								
Net Income	$ -	$ -	$ 11,908.38	$ 32,228.88	$ 106,754.29	$ 185,017.14	$ 192,397.22	$ 174,545.10
Amortization	$ -	$ -	$ 39,839.00	$ 111,517.13	$ 283,920.60	$ 479,229.60	$ 541,644.41	$ 549,314.57
CCA - Smart Meters	$ -	$ -	$ -	-$ 37,310.40	-$ 388,030.82	-$ 728,021.26	-$ 689,629.10	-$ 562,190.87
CCA - Computers	$ -	$ -	-$ 80,942.13	-$ 163,868.03	-$ 203,993.83	-$ 179,426.95	-$ 84,620.60	-$ 38,079.27
CCA - Applications Software	$ -	$ -	$ -	$ -	-$ 4,688.83	-$ 99,608.75	-$ 113,854.87	-$ 18,934.95
CCA - Other Equipment	$ -	$ -	-$ 31,216.50	-$ 63,667.30	-$ 65,054.04	-$ 65,012.30	-$ 59,498.22	-$ 48,760.49
Change in taxable income	$ -	$ -	-$ 60,411.24	-$ 121,099.72	-$ 271,092.62	-$ 407,822.52	-$ 213,561.14	$ 55,894.09
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.50%	26.50%
Income Taxes Payable	$ -	$ -	-$ 20,237.77	-$ 39,962.91	-$ 84,038.71	-$ 115,209.86	-$ 56,593.70	$ 14,811.93
ONTARIO CAPITAL TAX								
Smart Meters	$ -	$ -	$ -	$ 360,667.20	$ 3,437,557.23	$ 4,133,772.40	$ 3,931,881.11	$ 3,621,618.05
Computer Hardware	$ -	$ -	$ -	$ 10,629.90	$ 138,179.73	$ 106,948.19	$ 75,716.65	$ 44,485.11
Computer Software (Including Application Software)	$ -	$ -	$ 264,901.50	$ 347,592.80	$ 409,891.30	$ 469,199.72	$ 338,253.36	$ 165,650.11
Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Equipment	$ -	$ -	$ 301,759.50	$ 353,231.97	$ 391,647.70	$ 422,579.05	$ 399,368.80	$ 364,152.08
Rate Base	$ -	$ -	$ 566,661.00	$ 1,072,121.87	$ 4,377,275.96	$ 5,132,499.37	$ 4,745,219.92	$ 4,195,905.35
Less: Exemption								
Deemed Taxable Capital	$ -	$ -	$ 566,661.00	$ 1,072,121.87	$ 4,377,275.96	$ 5,132,499.37	$ 4,745,219.92	$ 4,195,905.35
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	$ -	$ -	$ 1,274.99	$ 2,412.27	$ 3,282.96	$ -	$ -	$ -
Change in Income Taxes Payable	$ -	$ -	-$ 20,237.77	-$ 39,962.91	-$ 84,038.71	-$ 115,209.86	-$ 56,593.70	$ 14,811.93
Change in OCT	$ -	$ -	$ 1,274.99	$ 2,412.27	$ 3,282.96	$ -	$ -	$ -
PILs	$ -	$ -	-$ 18,962.78	-$ 37,550.63	-$ 80,755.76	-$ 115,209.86	-$ 56,593.70	$ 14,811.93

Gross Up PILs

Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.50%	26.50%
Change in Income Taxes Payable	$ -	$ -	-$ 30,432.73	-$ 59,646.13	-$ 121,795.24	-$ 160,571.23	-$ 76,998.23	$ 20,152.29
Change in OCT	$ -	$ -	$ 1,274.99	$ 2,412.27	$ 3,282.96	$ -	$ -	$ -
PILs	**$ -**	**$ -**	**-$ 29,157.74**	**-$ 57,233.85**	**-$ 118,512.28**	**-$ 160,571.23**	**-$ 76,998.23**	**$ 20,152.29**

Smart Meter Model for Electricity Distributors (2013 Filers)

This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	Funding Adder Revenues	Interest Rate	Interest	Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder (from Tariff)
2006 Q1			Jan-06	2006	Q1	$ -	$ -	0.00%	$ -	$ -		
2006 Q2	4.14%	4.68%	Feb-06	2006	Q1	$ -	$ -	0.00%	$ -	$ -		
2006 Q3	4.59%	5.05%	Mar-06	2006	Q1	$ -	$ -	0.00%	$ -	$ -		
2006 Q4	4.59%	4.72%	Apr-06	2006	Q2	$ -	$ -	4.14%	$ -	$ -		
2007 Q1	4.59%	4.72%	May-06	2006	Q2	$ -	$ 9,726.00	4.14%	$ -	$ 9,726.00		$ 0.28
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	$ 9,726.00	$ 4,899.00	4.14%	$ 33.55	$ 14,658.55		$ 0.28
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	$ 14,625.00	$ 18,871.00	4.59%	$ 55.94	$ 33,551.94		$ 0.28
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	$ 33,496.00	$ 10,795.00	4.59%	$ 128.12	$ 44,419.12		$ 0.28
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	$ 44,291.00	$ 8,929.00	4.59%	$ 169.41	$ 53,389.41		$ 0.28
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	$ 53,220.00	$ 8,204.00	4.59%	$ 203.57	$ 61,627.57		$ 0.28
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	$ 61,424.00	$ 9,791.00	4.59%	$ 234.95	$ 71,449.95		$ 0.28
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	$ 71,215.00	$ 11,001.00	4.59%	$ 272.40	$ 82,488.40	$ 83,313.94	$ 0.28
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	$ 82,216.00	$ 12,101.00	4.59%	$ 314.48	$ 94,631.48		$ 0.28
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	$ 94,317.00	$ 10,972.00	4.59%	$ 360.76	$ 105,649.76		$ 0.28
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	$ 105,289.00	$ 11,130.00	4.59%	$ 402.73	$ 116,821.73		$ 0.28
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	$ 116,419.00	$ 8,399.00	4.59%	$ 445.30	$ 125,263.30		$ 0.28
2010 Q1	0.55%	4.34%	May-07	2007	Q2	$ 124,818.00	$ 9,126.00	4.59%	$ 477.43	$ 134,421.43		$ 0.28
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	$ 133,944.00	$ 9,624.00	4.59%	$ 512.34	$ 144,080.34		$ 0.28
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	$ 143,568.00	$ 12,060.00	4.59%	$ 549.15	$ 156,177.15		$ 0.28
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	$ 155,628.00	$ 12,051.00	4.59%	$ 595.28	$ 168,274.28		$ 0.28
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	$ 167,679.00	$ 11,204.00	4.59%	$ 641.37	$ 179,524.37		$ 0.28
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	$ 178,883.00	$ 7,406.00	5.14%	$ 766.22	$ 187,055.22		$ 0.28
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	$ 186,289.00	$ 9,979.00	5.14%	$ 797.94	$ 197,065.94		$ 0.28
2011 Q4	1.47%	3.92%	Dec-07	2007	Q4	$ 196,268.00	$ 11,596.00	5.14%	$ 840.68	$ 208,704.68	$ 132,351.68	$ 0.28
2012 Q1	1.47%	3.92%	Jan-08	2008	Q1	$ 207,864.00	$ 13,947.00	5.14%	$ 890.35	$ 222,701.35		$ 0.28
2012 Q2	1.47%	3.51%	Feb-08	2008	Q1	$ 221,811.00	$ 8,475.00	5.14%	$ 950.09	$ 231,236.09		$ 0.28
2012 Q3	1.47%	3.51%	Mar-08	2008	Q1	$ 230,286.00	$ 9,415.00	5.14%	$ 986.39	$ 240,687.39		$ 0.28
2012 Q4	1.47%	3.51%	Apr-08	2008	Q2	$ 239,701.00	$ 13,742.00	4.08%	$ 814.98	$ 254,257.98		$ 0.28
2013 Q1	1.47%	3.51%	May-08	2008	Q2	$ 253,443.00	$ 5,120.00	4.08%	$ 861.71	$ 259,424.71		$ 0.28
2013 Q2	1.47%	3.51%	Jun-08	2008	Q2	$ 258,563.00	$ 15,878.00	4.08%	$ 879.11	$ 275,320.11		$ 0.28

Smart Meter Model for Electricity Distributors (2013 Filers)

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)
2013 Q3	1.47%	3.51%	Jul-08	2008	Q3	$ 274,441.00	$ 13,551.00	3.35%	$ 766.15	$ 288,758.15		$ 0.28
2013 Q4	1.47%	3.51%	Aug-08	2008	Q3	$ 287,992.00	$ 9,889.00	3.35%	$ 803.98	$ 298,684.98		$ 0.28
			Sep-08	2008	Q3	$ 297,881.00	$ 9,948.00	3.35%	$ 831.58	$ 308,660.58		$ 0.28
			Oct-08	2008	Q4	$ 307,829.00	$ 11,354.00	3.35%	$ 859.36	$ 320,042.36		$ 0.28
			Nov-08	2008	Q4	$ 319,183.00	$ 9,579.00	3.35%	$ 891.05	$ 329,653.05		$ 0.28
			Dec-08	2008	Q4	$ 328,762.00	$ 10,399.00	3.35%	$ 917.79	$ 340,078.79	$ 141,749.54	$ 0.28
			Jan-09	2009	Q1	$ 339,161.00	$ 12,501.00	2.45%	$ 692.45	$ 352,354.45		$ 0.28
			Feb-09	2009	Q1	$ 351,662.00	$ 9,485.00	2.45%	$ 717.98	$ 361,864.98		$ 0.28
			Mar-09	2009	Q1	$ 361,147.00	$ 12,119.00	2.45%	$ 737.34	$ 374,003.34		$ 0.28
			Apr-09	2009	Q2	$ 373,266.00	$ 9,336.00	1.00%	$ 311.06	$ 382,913.06		$ 0.28
			May-09	2009	Q2	$ 382,602.00	$ 44,948.00	1.00%	$ 318.84	$ 427,868.84		$ 1.00
			Jun-09	2009	Q2	$ 427,550.00	$ 42,335.00	1.00%	$ 356.29	$ 470,241.29		$ 1.00
			Jul-09	2009	Q3	$ 469,885.00	$ 41,092.00	0.55%	$ 215.36	$ 511,192.36		$ 1.00
			Aug-09	2009	Q3	$ 510,977.00	$ 31,149.00	0.55%	$ 234.20	$ 542,360.20		$ 1.00
			Sep-09	2009	Q3	$ 542,126.00	$ 41,966.00	0.55%	$ 248.47	$ 584,340.47		$ 1.00
			Oct-09	2009	Q4	$ 584,092.00	$ 36,023.00	0.55%	$ 267.71	$ 620,382.71		$ 1.00
			Nov-09	2009	Q4	$ 620,115.00	$ 46,787.00	0.55%	$ 284.22	$ 667,186.22		$ 1.00
			Dec-09	2009	Q4	$ 666,902.00	$ 32,820.00	0.55%	$ 305.66	$ 700,027.66	$ 365,250.58	$ 1.00
			Jan-10	2010	Q1	$ 699,722.00	$ 49,349.00	0.55%	$ 320.71	$ 749,391.71		$ 1.00
			Feb-10	2010	Q1	$ 749,071.00	$ 31,529.00	0.55%	$ 343.32	$ 780,943.32		$ 1.00
			Mar-10	2010	Q1	$ 780,600.00	$ 51,350.00	0.55%	$ 357.78	$ 832,307.78		$ 1.00
			Apr-10	2010	Q2	$ 831,950.00	$ 35,917.00	0.55%	$ 381.31	$ 868,248.31		$ 1.00
			May-10	2010	Q2	$ 867,867.00	$ 39,735.00	0.55%	$ 397.77	$ 907,999.77		$ 1.00
			Jun-10	2010	Q2	$ 907,602.00	$ 38,728.00	0.55%	$ 415.98	$ 946,745.98		$ 1.00
			Jul-10	2010	Q3	$ 946,330.00	$ 45,137.00	0.89%	$ 701.86	$ 992,168.86		$ 1.00
			Aug-10	2010	Q3	$ 991,467.00	$ 33,691.00	0.89%	$ 735.34	$ 1,025,893.34		$ 1.00
			Sep-10	2010	Q3	$ 1,025,158.00	$ 44,833.00	0.89%	$ 760.33	$ 1,070,751.33		$ 1.00
			Oct-10	2010	Q4	$ 1,069,991.00	$ 32,732.00	1.20%	$ 1,069.99	$ 1,103,792.99		$ 1.00
			Nov-10	2010	Q4	$ 1,102,723.00	$ 45,168.00	1.20%	$ 1,102.72	$ 1,148,993.72		$ 1.00
			Dec-10	2010	Q4	$ 1,147,891.00	$ 26,506.00	1.20%	$ 1,147.89	$ 1,175,544.89	$ 482,410.00	$ 1.00
			Jan-11	2011	Q1	$ 1,174,397.00	$ 40,418.43	1.47%	$ 1,438.64	$ 1,216,254.07		$ 2.13

Smart Meter Model for Electricity Distributors (2013 Filers)

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)
			Feb-11	2011	Q1	$ 1,214,815.43	$ 54,797.48	1.47%	$ 1,488.15	$ 1,271,101.06		$ 2.13
			Mar-11	2011	Q1	$ 1,269,612.91	$ 191,840.37	1.47%	$ 1,555.28	$ 1,463,008.56		$ 2.13
			Apr-11	2011	Q2	$ 1,461,453.28	$ 67,672.33	1.47%	$ 1,790.28	$ 1,530,915.89		$ 2.13
			May-11	2011	Q2	$ 1,529,125.61	$ 90,292.30	1.47%	$ 1,873.18	$ 1,621,291.09		$ 2.13
			Jun-11	2011	Q2	$ 1,619,417.91	$ 79,049.76	1.47%	$ 1,983.79	$ 1,700,451.46		$ 2.13
			Jul-11	2011	Q3	$ 1,698,467.67	$ 90,732.23	1.47%	$ 2,080.62	$ 1,791,280.52		$ 2.13
			Aug-11	2011	Q3	$ 1,789,199.90	$ 84,804.57	1.47%	$ 2,191.77	$ 1,876,196.24		$ 2.13
			Sep-11	2011	Q3	$ 1,874,004.47	$ 86,746.89	1.47%	$ 2,295.66	$ 1,963,047.02		$ 2.13
			Oct-11	2011	Q4	$ 1,960,751.36	$ 79,884.14	1.47%	$ 2,401.92	$ 2,043,037.42		$ 2.13
			Nov-11	2011	Q4	$ 2,040,635.50	$ 102,532.05	1.47%	$ 2,499.78	$ 2,145,667.33		$ 2.13
			Dec-11	2011	Q4	$ 2,143,167.55	$ 48,711.25	1.47%	$ 2,625.38	$ 2,194,504.18	$ 1,041,706.25	$ 2.13
			Jan-12	2012	Q1	$ 2,191,878.80	$ 112,261.18	1.47%	$ 2,685.05	$ 2,306,825.03		$ 1.50
			Feb-12	2012	Q1	$ 2,304,139.98	$ 59,883.33	1.47%	$ 2,822.57	$ 2,366,845.88		$ 1.50
			Mar-12	2012	Q1	$ 2,364,023.31	$ 14,370.52	1.47%	$ 2,895.93	$ 2,381,289.76		$ 1.50
			Apr-12	2012	Q2	$ 2,378,393.83	$ 47,606.78	1.47%	$ 2,913.53	$ 2,428,914.14		$ 1.50
			May-12	2012	Q2	$ 2,426,000.61	$ 57,561.23	1.47%	$ 2,971.85	$ 2,486,533.69		$ 1.50
			Jun-12	2012	Q2	$ 2,483,561.84	$ 66,559.70	1.47%	$ 3,042.36	$ 2,553,163.90		$ 1.50
			Jul-12	2012	Q3	$ 2,550,121.54	$ 52,656.55	1.47%	$ 3,123.90	$ 2,605,901.99		$ 1.50
			Aug-12	2012	Q3	$ 2,602,778.09	$ 79,341.45	1.47%	$ 3,188.40	$ 2,685,307.94		$ 1.50
			Sep-12	2012	Q3	$ 2,682,119.54	$ 58,835.80	1.47%	$ 3,285.60	$ 2,744,240.94		$ 1.50
			Oct-12	2012	Q4	$ 2,740,955.34	$ 60,818.45	1.47%	$ 3,357.67	$ 2,805,131.46		$ 1.50
			Nov-12	2012	Q4	$ 2,801,773.79	$ 61,341.00	1.47%	$ 3,432.17	$ 2,866,546.96		$ 1.50
			Dec-12	2012	Q4	$ 2,863,114.79	$ 61,414.50	1.47%	$ 3,507.32	$ 2,928,036.61	$ 769,876.84	$ 1.50
			Jan-13	2013	Q1	$ 2,924,529.29	$ -	1.47%	$ 3,582.55	$ 2,928,111.84		$ -
			Feb-13	2013	Q1	$ 2,924,529.29	$ -	1.47%	$ 3,582.55	$ 2,928,111.84		$ -
			Mar-13	2013	Q1	$ 2,924,529.29	$ -	1.47%	$ 3,582.55	$ 2,928,111.84		$ -
			Apr-13	2013	Q2	$ 2,924,529.29	$ -	1.47%	$ 3,582.55	$ 2,928,111.84		$ -
			May-13	2013	Q2	$ 2,924,529.29	$ -		$ -	$ 2,924,529.29		$ -
			Jun-13	2013	Q2	$ 2,924,529.29	$ -		$ -	$ 2,924,529.29		$ -
			Jul-13	2013	Q3	$ 2,924,529.29	$ -		$ -	$ 2,924,529.29		$ -
			Aug-13	2013	Q3	$ 2,924,529.29	$ -		$ -	$ 2,924,529.29		$ -

Smart Meter Model for Electricity Distributors (2013 Filers)

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)
			Sep-13	*2013*	*Q3*	$ 2,924,529.29	$ -		$ -	$ 2,924,529.29		$ -
			Oct-13	*2013*	*Q4*	$ 2,924,529.29	$ -		$ -	$ 2,924,529.29		$ -
			Nov-13	*2013*	*Q4*	$ 2,924,529.29	$ -		$ -	$ 2,924,529.29		$ -
			Dec-13	*2013*	*Q4*	$ 2,924,529.29	$ -		$ -	$ 2,924,529.29	$ 14,330.20	$ -
Total Funding Adder Revenues Collected							**$ 2,924,529.29**		**$ 92,129.54**	**$ 3,016,658.83**	**$ 3,016,658.83**	

Smart Meter Model for Electricity Distributors (2013 Filers)

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

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

Prescribed Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	OM&A Expenses	Amortization / Depreciation Expense	Closing Balance (Principal)	(Annual) Interest Rate	Interest (on opening balance)	Cumulative Interest
2006 Q1	0.00%	0.00%	Jan-06	2006	Q1	$ -			-	0.00%	-	-
2006 Q2	4.14%	4.68%	Feb-06	2006	Q1	-			-	0.00%	-	-
2006 Q3	4.59%	5.05%	Mar-06	2006	Q1	-			-	0.00%	-	-
2006 Q4	4.59%	4.72%	Apr-06	2006	Q2	-			-	4.14%	-	-
2007 Q1	4.59%	4.72%	May-06	2006	Q2	-			-	4.14%	-	-
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	-			-	4.14%	-	-
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	-			-	4.59%	-	-
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	-			-	4.59%	-	-
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	-			-	4.59%	-	-
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	-			-	4.59%	-	-
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	-			-	4.59%	-	-
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	-			-	4.59%	-	-
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	-			-	4.59%	-	-
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	-			-	4.59%	-	-
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	-			-	4.59%	-	-
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	-			-	4.59%	-	-
2010 Q1	0.55%	4.34%	May-07	2007	Q2	-			-	4.59%	-	-
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	-			-	4.59%	-	-
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	-			-	4.59%	-	-
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	-			-	4.59%	-	-
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	-			-	4.59%	-	-
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	-			-	5.14%	-	-
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	-			-	5.14%	-	-
2011 Q4	1.47%	3.92%	Dec-07	2007	Q4	-			-	5.14%	-	-
2012 Q1	1.47%	3.92%	Jan-08	2008	Q1	-		$ 3,319.92	3,319.92	5.14%	-	-
2012 Q2	1.47%	3.51%	Feb-08	2008	Q1	3,319.92		$ 3,319.92	6,639.83	5.14%	14.22	14.22
2012 Q3	1.47%	3.51%	Mar-08	2008	Q1	6,639.83		$ 3,319.92	9,959.75	5.14%	28.44	42.66
2012 Q4	1.47%	3.51%	Apr-08	2008	Q2	9,959.75		$ 3,319.92	13,279.67	4.08%	33.86	76.52
2013 Q1	1.47%	3.51%	May-08	2008	Q2	13,279.67		$ 3,319.92	16,599.58	4.08%	45.15	121.67
2013 Q2	1.47%	3.51%	Jun-08	2008	Q2	16,599.58		$ 3,319.92	19,919.50	4.08%	56.44	178.11
2013 Q3	1.47%	3.51%	Jul-08	2008	Q3	19,919.50		$ 3,319.92	23,239.42	3.35%	55.61	233.72
2013 Q4	1.47%	3.51%	Aug-08	2008	Q3	23,239.42		$ 3,319.92	26,559.33	3.35%	64.88	298.60
			Sep-08	2008	Q3	26,559.33		$ 3,319.92	29,879.25	3.35%	74.14	372.74

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

Prescribed Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	OM&A Expenses	Amortization / Depreciation Expense	Closing Balance (Principal)	(Annual) Interest Rate	Interest (on opening balance)	Cumulative Interest
			Oct-08	2008	Q4	29,879.25		$ 3,319.92	33,199.17	3.35%	83.41	456.16
			Nov-08	2008	Q4	33,199.17		$ 3,319.92	36,519.08	3.35%	92.68	548.84
			Dec-08	2008	Q4	36,519.08		$ 3,319.92	39,839.00	3.35%	101.95	650.79
			Jan-09	2009	Q1	39,839.00		$ 9,293.09	49,132.09	2.45%	81.34	732.12
			Feb-09	2009	Q1	49,132.09		$ 9,293.09	58,425.19	2.45%	100.31	832.44
			Mar-09	2009	Q1	58,425.19		$ 9,293.09	67,718.28	2.45%	119.28	951.72
			Apr-09	2009	Q2	67,718.28		$ 9,293.09	77,011.38	1.00%	56.43	1,008.15
			May-09	2009	Q2	77,011.38		$ 9,293.09	86,304.47	1.00%	64.18	1,072.33
			Jun-09	2009	Q2	86,304.47		$ 9,293.09	95,597.57	1.00%	71.92	1,144.25
			Jul-09	2009	Q3	95,597.57		$ 9,293.09	104,890.66	0.55%	43.82	1,188.06
			Aug-09	2009	Q3	104,890.66		$ 9,293.09	114,183.76	0.55%	48.07	1,236.14
			Sep-09	2009	Q3	114,183.76		$ 9,293.09	123,476.85	0.55%	52.33	1,288.47
			Oct-09	2009	Q4	123,476.85		$ 9,293.09	132,769.94	0.55%	56.59	1,345.07
			Nov-09	2009	Q4	132,769.94		$ 9,293.09	142,063.04	0.55%	60.85	1,405.92
			Dec-09	2009	Q4	142,063.04	50,841.58	$ 9,293.09	202,197.71	0.55%	65.11	1,471.03
			Jan-10	2010	Q1	202,197.71	687.40	$ 23,660.05	226,545.16	0.55%	92.67	1,563.71
			Feb-10	2010	Q1	226,545.16	4,187.24	$ 23,660.05	254,392.45	0.55%	103.83	1,667.54
			Mar-10	2010	Q1	254,392.45	3,697.92	$ 23,660.05	281,750.42	0.55%	116.60	1,784.14
			Apr-10	2010	Q2	281,750.42	4,752.03	$ 23,660.05	310,162.50	0.55%	129.14	1,913.27
			May-10	2010	Q2	310,162.50	3,896.00	$ 23,660.05	337,718.55	0.55%	142.16	2,055.43
			Jun-10	2010	Q2	337,718.55	21,588.96	$ 23,660.05	382,967.57	0.55%	154.79	2,210.22
			Jul-10	2010	Q3	382,967.57	1,689.21	$ 23,660.05	408,316.83	0.89%	284.03	2,494.25
			Aug-10	2010	Q3	408,316.83	6,089.46	$ 23,660.05	438,066.34	0.89%	302.83	2,797.09
			Sep-10	2010	Q3	438,066.34	14,381.07	$ 23,660.05	476,107.46	0.89%	324.90	3,121.99
			Oct-10	2010	Q4	476,107.46	4,108.48	$ 23,660.05	503,875.99	1.20%	476.11	3,598.09
			Nov-10	2010	Q4	503,875.99	8,928.42	$ 23,660.05	536,464.46	1.20%	503.88	4,101.97
			Dec-10	2010	Q4	536,464.46	23,978.82	$ 23,660.05	584,103.33	1.20%	536.46	4,638.43
			Jan-11	2011	Q1	584,103.33	6,311.39	$ 39,935.80	630,350.52	1.47%	715.53	5,353.96
			Feb-11	2011	Q1	630,350.52	5,950.69	$ 39,935.80	676,237.01	1.47%	772.18	6,126.14
			Mar-11	2011	Q1	676,237.01	5,909.04	$ 39,935.80	722,081.85	1.47%	828.39	6,954.53
			Apr-11	2011	Q2	722,081.85	5,921.78	$ 39,935.80	767,939.43	1.47%	884.55	7,839.08
			May-11	2011	Q2	767,939.43	34,393.94	$ 39,935.80	842,269.17	1.47%	940.73	8,779.81
			Jun-11	2011	Q2	842,269.17	6,102.45	$ 39,935.80	888,307.42	1.47%	1,031.78	9,811.59
			Jul-11	2011	Q3	888,307.42	13,118.52	$ 39,935.80	941,361.74	1.47%	1,088.18	10,899.76
			Aug-11	2011	Q3	941,361.74	20,285.41	$ 39,935.80	1,001,582.94	1.47%	1,153.17	12,052.93
			Sep-11	2011	Q3	1,001,582.94	13,537.01	$ 39,935.80	1,055,055.75	1.47%	1,226.94	13,279.87
			Oct-11	2011	Q4	1,055,055.75	29,808.90	$ 39,935.80	1,124,800.45	1.47%	1,292.44	14,572.31
			Nov-11	2011	Q4	1,124,800.45	9,875.93	$ 39,935.80	1,174,612.18	1.47%	1,377.88	15,950.19
			Dec-11	2011	Q4	1,174,612.18	71,055.38	$ 39,935.80	1,285,603.36	1.47%	1,438.90	17,389.09
			Jan-12	2012	Q1	1,285,603.36	15,293.27	$ 45,137.03	1,346,033.67	1.47%	1,574.86	18,963.96
			Feb-12	2012	Q1	1,346,033.67	9,813.00	$ 45,137.03	1,400,983.70	1.47%	1,648.89	20,612.85
			Mar-12	2012	Q1	1,400,983.70	60,957.03	$ 45,137.03	1,507,077.77	1.47%	1,716.21	22,329.05
			Apr-12	2012	Q2	1,507,077.77	17,456.70	$ 45,137.03	1,569,671.50	1.47%	1,846.17	24,175.22
			May-12	2012	Q2	1,569,671.50	18,119.00	$ 45,137.03	1,632,927.54	1.47%	1,922.85	26,098.07
			Jun-12	2012	Q2	1,632,927.54	40,650.38	$ 45,137.03	1,718,714.95	1.47%	2,000.34	28,098.41
			Jul-12	2012	Q3	1,718,714.95	23,844.31	$ 45,137.03	1,787,696.30	1.47%	2,105.43	30,203.83
			Aug-12	2012	Q3	1,787,696.30	(39,962.13)	$ 45,137.03	1,792,871.20	1.47%	2,189.93	32,393.76
			Sep-12	2012	Q3	1,792,871.20	33,632.79	$ 45,137.03	1,871,641.02	1.47%	2,196.27	34,590.03
			Oct-12	2012	Q4	1,871,641.02	10,418.42	$ 45,137.03	1,927,196.48	1.47%	2,292.76	36,882.79
			Nov-12	2012	Q4	1,927,196.48	10,000.00	$ 45,137.03	1,982,333.51	1.47%	2,360.82	39,243.60
			Dec-12	2012	Q4	1,982,333.51	25,109.00	$ 45,137.03	2,052,579.55	1.47%	2,428.36	41,671.96
			Jan-13	2013	Q1	2,052,579.55	$ 25,916.67	$ 45,776.21	2,124,272.43	1.47%	2,514.41	44,186.37
			Feb-13	2013	Q1	2,124,272.43	$ 25,916.67	$ 45,776.21	2,195,965.31	1.47%	2,602.23	46,788.61

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

Prescribed Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	OM&A Expenses	Amortization / Depreciation Expense	Closing Balance (Principal)	(Annual) Interest Rate	Interest (on opening balance)	Cumulative Interest
			Mar-13	2013	Q1	2,195,965.31	$ 25,916.67	$ 45,776.21	2,267,658.19	1.47%	2,690.06	49,478.66
			Apr-13	2013	Q2	2,267,658.19	$ 25,916.67	$ 45,776.21	2,339,351.07	1.47%	2,777.88	52,256.55
			May-13	2013	Q2	2,339,351.07	$ 25,916.67	$ 45,776.21	2,411,043.95	0.00%	-	52,256.55
			Jun-13	2013	Q2	2,411,043.95	$ 25,916.67	$ 45,776.21	2,482,736.83	0.00%	-	52,256.55
			Jul-13	2013	Q3	2,482,736.83	$ 25,916.67	$ 45,776.21	2,554,429.71	0.00%	-	52,256.55
			Aug-13	2013	Q3	2,554,429.71	$ 25,916.67	$ 45,776.21	2,626,122.60	0.00%	-	52,256.55
			Sep-13	2013	Q3	2,626,122.60	$ 25,916.67	$ 45,776.21	2,697,815.48	0.00%	-	52,256.55
			Oct-13	2013	Q4	2,697,815.48	$ 25,916.67	$ 45,776.21	2,769,508.36	0.00%	-	52,256.55
			Nov-13	2013	Q4	2,769,508.36	$ 25,916.67	$ 45,776.21	2,841,201.24	0.00%	-	52,256.55
			Dec-13	2013	Q4	2,841,201.24	$ 25,916.67	$ 45,776.21	2,912,894.12	0.00%	-	52,256.55
							$ 596,428.80	$ 1,456,150.75	$ 2,052,579.55			

Smart Meter Model for Electricity Distributors (2013 Filers)

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	$ -	$ -	$ -	$ -	4.73%	$ -
2008	$ -	$ 39,839.00	$ 39,839.00	$ 19,919.50	3.98%	$ 792.80
2009	$ 50,842.00	$ 111,517.13	$ 202,198.13	$ 121,018.57	1.14%	$ 1,376.59
2010	$ 97,985.00	$ 283,920.60	$ 584,103.74	$ 393,150.94	0.80%	$ 3,135.38
2011	$ 222,270.00	$ 479,229.60	$ 1,285,603.33	$ 934,853.54	1.47%	$ 13,742.35
2012	$ 269,097.22	$ 541,644.41	$ 2,096,344.97	$ 1,690,974.15	1.47%	$ 24,857.32
2013	$ 311,000.00	$ 549,314.57	$ 2,956,659.54	$ 2,526,502.25	0.49%	$ 12,379.86

Cumulative Interest to 2011	$ 19,047.11
Cumulative Interest to 2012	$ 43,904.43
Cumulative Interest to 2013	$ 56,284.29

Smart Meter Model for Electricity Distributors (2013 Filers)

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	2013	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	$ -	$ -	$ 33,538.24	$ 171,350.79	$ 482,757.36	$ 877,540.80	$ 1,083,782.86	$ 1,198,026.91	$ 2,648,970.05
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B)	$ -	$ -	$ 650.79	$ 820.25	$ 3,167.40	$ 12,750.66	$ 24,282.87		$ 41,671.96
(Check **one** of the boxes below)									
X Sheet 8A (Interest calculated on monthly balances)	$ -	$ -	$ 650.79	$ 820.25	$ 3,167.40	$ 12,750.66	$ 24,282.87	$ 10,584.58	$ 41,671.96
Sheet 8B (Interest calculated on average annual balances)									
SMFA Revenues (from Sheet 8)	$ 82,216.00	$ 125,648.00	$ 131,297.00	$ 360,561.00	$ 474,675.00	$ 1,017,481.80	$ 732,650.49	$ -	$ 2,924,529.29
SMFA Interest (from Sheet 8)	$ 1,097.94	$ 6,703.68	$ 10,452.54	$ 4,689.58	$ 7,735.00	$ 24,224.45	$ 37,226.35	$ 14,330.20	$ 106,459.74
Net Deferred Revenue Requirement	-$ 83,313.94	-$ 132,351.68	-$ 107,560.52	-$ 193,079.54	$ 3,514.76	-$ 151,414.79	$ 338,188.89	$ 1,183,696.71	-$ 340,347.02
Number of Metered Customers (average for 2013 test year)								40,809	
- Number of metered customers for which smart meter were deployed as part of program). Residential and GS < 50 kW customer classes and any other metered classes involved (e.g. GS 50 to 4999 kW for which interval meters were upgraded to utilize AMI and ODS assets)									

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, 2012 plus Interest on OM&A and Amortization		$	2,690,642.01
SMFA Revenues collected from 2006 to 2013 test year (inclusive) Plus Simple Interest on SMFA Revenues		$	3,030,989.03
Net Deferred Revenue Requirement		-$	340,347.02
SMDR	May 1, 2013 to April 30, 2014	-$	0.69
Check: Forecasted SMDR Revenues		-$	337,898.52

Match

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

Incremental Revenue Requirement for 2013	$	1,198,026.91
SMIRR	$	2.45
Check: Forecasted SMIRR Revenues	$	1,199,784.60

Match

This worksheet calculates the class-specific SMDRs according to accepted practice. A distributor may choose to use its own methodology, but should provide analogous support for its allocation and derivation of class-specific SMDRs and SMIRRs.

Class-specific SMDRs

Revenue Requirement for Historical Years	2006	2007	2008	2009	2010	2011	2012	Total 2006 to 2012	**Explanation / Allocator**	Residential	GS < 50 kW	GS 50 to 4999 kW	Other (please specify)	Total
									Check Row if SMDR/SMIRR apply to class	X	X			2
										%	%	%	%	
									Weighted Meter Cost - Capital	81.56%	18.44%	0.00%	0.00%	100%
Return on Capital	$ -	$ -	$ 22,856.98	$ 66,225.51	$ 219,364.04	$ 336,612.44	$ 350,039.46	$ 995,098.43	Allocated per class	$ 811,623.92	$ 183,474.52	$ -	$ -	
Depreciation/Amortization expense and related interest	$ -	$ -	$ 39,839.00	$ 111,517.13	$ 283,920.60	$ 479,229.60	$ 541,644.41							
	$ -	$ -	$ 650.79	$ 563.39	$ 2,354.75	$ 8,710.62	$ 16,223.02		Weighted Meter Cost - Capital	82%	18%	0%	0%	100%
	$ -	$ -	$ 40,489.79	$ 112,080.52	$ 286,275.35	$ 487,940.21	$ 557,867.44	$ 1,484,653.31	Allocated per class	$ 1,210,915.52	$ 273,737.79	$ -	$ -	
Operating Expenses and related interest	$ -	$ -	$ -	$ 50,842.00	$ 97,985.00	$ 222,270.00	$ 269,097.22							
	$ -	$ -	$ -	$ 256.86	$ 812.66	$ 4,040.04	$ 8,059.85		Number of Smart Meters installed by Class	# 38,524	# 2,097	# -	# -	
	$ -	$ -	$ -	$ 51,098.86	$ 98,797.66	$ 226,310.04	$ 277,157.07	$ 653,363.62	Allocated per class	$ 619,634.68	$ 33,728.95	0	0	
Revenue Requirement before Taxes/PILs								$ 3,133,115.36		$ 2,642,174.11	$ 490,941.25	$ -	$ -	$ -
									Revenue Requirement before PILs	84.33%	15.67%	0.00%	0.00%	100%
Grossed-up Taxes/PILs	$ -	$ -	-$ 29,157.74	-$ 57,233.85	-$ 118,512.28	-$ 160,571.23	-$ 76,998.23	-$ 442,473.35		-$ 373,140.31	-$ 69,333.04	$ -	$ -	
Total Revenue Requirement plus interest on OM&A and depreciation expense								$ 2,690,642.01		$ 2,269,033.80	$ 421,608.21	$ -	$ -	
								$ -	Percentage of costs allocated to each clas	84.33%	15.67%	0.00%	0.00%	
									Percentage of costs for classes with SMDR/SMIRR	84.33%	15.67%	0.00%	0.00%	
										%	%	%	%	
									SMFA Revenues directly attributable to class	94.51%	5.49%			100%
										94.51%	5.49%	0.00%	0.00%	100.00%
									Residual SMFA Revenues (from other metered classes) attributed evenly	0.00%	0.00%	0.00%	0.00%	
									Total	94.51%	5.49%	0.00%	0.00%	
SMFA Revenues plus interest expense								$ 3,030,989.03		$ 2,864,495.16	$ 166,493.87	$ -	$ -	
Net Deferred Revenue Requirement to be recovered via SMDR								-$ 340,347.02		-$ 595,461.36	$ 255,114.34	$ -	$ -	
Average number of metered customers by class (2013)								Average number of customers (2013)		38,524	2,097	0	0	
Number of Years for SMDR recovery								1 years		1	1	1	1	
Smart Meter Disposition Rider ($/month per metered customer in the customer class)										-$ 1.29	$ 10.14			
Estimated SMDR Revenues								-$ 341,188.56		-$ 596,351.52	$ 255,162.96	$ -	$ -	

Smart Meter Model for Electricity Distributors (2013 Filers)

This worksheet calculates the class-specific SMIRRs according to accepted practice. A distributor may choose to use its own methodology, but should provide analogous support for its allocation and derivation of class-specific SMDRs and SMIRRs.

Class-specific SMDRs

Revenue Requirement for 2013

		2013	**Explanation / Allocator**	Residential	GS < 50 kW	GS 50 to 4999 kW	Other (please specify)	Total
			Check Row if SMDR/SMIRR apply to class	X	X			2
				%	%	%	%	
			Weighted Meter Cost - Capital	81.56%	18.44%	0.00%	0.00%	100%
Return on Capital	$	317,560.05	Allocated per class	$ 259,008.88	$ 58,551.17	$ -	$ -	
Depreciation/Amortization expense			Weighted Meter Cost - Capital	81.56%	18.44%	0.00%	0.00%	100%
	$	549,314.57	Allocated per class	$ 448,032.91	$ 101,281.66	$ -	$ -	
Operating Expenses	$	311,000.00						
			Number of Smart Meters installed by Class	# 38,524	# 2,097	# -	# -	
	$	311,000.00	Allocated per class	$ 294,945.08	$ 16,054.92	$ -	$ -	
Revenue Requirement before Taxes/PILs	$	1,177,874.62		$ 1,001,986.87	$ 175,887.75	$ -	$ -	$ -
			Revenue Requirement before PILs	85.07%	14.93%	0.00%	0.00%	100%
Grossed-up Taxes/PILs	$	20,152.29		$ 17,143.02	$ 3,009.27	$ -	$ -	
Total Revenue Requirement for 2013	$	1,198,026.91		$ 1,019,129.89	$ 178,897.02	$ -	$ -	
			Percentage of costs allocated to each clas	85.07%	14.93%	0.00%	0.00%	
	$	-	Percentage of costs for classes with SMDR/SMIRR	85.07%	14.93%	0.00%	0.00%	
				85.07%	14.93%	0.00%	0.00%	
Average number of metered customers by class (2013)				38,524	2,097	-	-	
The SMIRR is recovered as an annualized rate until the effective date of the distributor's next rebased rates resulting from a cost of service application		1 year		1	1	1	1	
Smart Meter Incremental Revenue Requirement Rate Rider ($/month per metered customer in the customer class)				$ 2.20	$ 7.11			
Estimated SMIRR Revenues	$	1,195,949.64		$ 1,017,033.60	$ 178,916.04	$ -	$ -	
	-$	2,077.27						