Kingston Hydro

October 29, 2012

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

Dear Ms. Walli,

Re: 2012 Smart Meter Cost Recovery Application EB-2012-0310
Kingston Hydro Responses to Board Staff Interrogatories

Attached please find Kingston Hydro's Responses to Board Staff interrogatories relating to Kingston Hydro's Smart Meter Application EB-2012-0310.

A complete copy of the Interrogatory Responses and a Smart Meter Model Update (in working Microsoft Excel format) have been filed through the Board's RESS filing system, and two hard copies along with a CD of materials have been sent to the Board via courier.

Yours truly,

Sherry Gibson, MBA
Senior Advisor, Rates and Regulatory Affairs

Copy by email: Kelli Benincasa, Kelli.Benincasa@ontarioenergyboard.ca
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Kingston Hydro Corporation
2012 Smart Meter Cost Recovery
EB-2012-0310

Responses to Board Staff Interrogatories

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1. Ref: Application, section 2.1.14 – Meter Base Repairs

On page 9 of the Application, Kingston states that it repaired about 80 customer meter bases, representing 0.003% of the smart meter population. On page 10, Kingston states that labour and associated costs were tracked in Account 1555 and materials were tracked in Account 1556 and expensed.

a) Please confirm that 80 meter bases represents about 0.3% of the smart meter deployment of 26,385 to residential and GS < 50 kW customers.

Response #1a)

The correct percentage is 0.3%.

b) Please identify where the capitalized and expensed costs are documented on sheet 2 of the Smart Meter Model, version 3.00. If these are not shown separately from other costs, please provide a table that documents each of capitalized and expensed costs related to meter base repairs, by year and in total.

Response #1b)

The Capitalized costs related to meter base replacement costs are all shown on line 1.5.1 Customer Equipment of Sheet 2 of the Smart Meter Model.

The expensed costs related to meter base replacement are shown on line 2.1.1 Maintenance of Sheet 2 of the Smart Meter Model.

Costs related to meter base replacement are the only amounts shown on these two lines.

2. Ref: Sheet 2 "Smart_Meter_Costs" (1.1.1 Smart Meters)

On sheet 2 of the Smart Meter Model (1.1.1. Smart Meters), Kingston does not document any smart meter capital costs for the year 2011, despite installing 477 residential and GS < 50 kW smart meters in that year and showing $229,779 for installation charges in that year.

a) Please explain the reason for $0 documented.

Response #2a)

The 477 smart meters that were installed in 2011 were part of the bulk purchases that were made during 2009 and 2010, and hence the reason for smart meter installation costs incurred in 2011 however no smart meter capital costs in 2011.

b) If the costs for the procurement of smart meters installed in 2011 is documented elsewhere, please explain where.

Response #2b)

Please see response to Board staff #2 a).

c) If these costs are included in the procurement costs in earlier years, please explain the rationale for factoring these costs in the determination of the rate base and deferred revenue requirement prior to the smart meters being deployed and coming into service.

Response #2c)

There is no double counting of costs.

d) If necessary, please update the Smart Meter Model.

Response #2d)

No update to the Smart Meter Model is necessary as a result of responses to Board Staff #2 a), b), and c) interrogatories.

3. Ref: Application, Page 14 and Smart Meter Model, Sheet 2 – 2013 Capital Costs

In Table 4.1 and in row 42, "1.1.1 Smart Meters", Kingston forecasts $153,000 for smart meters in 2013. However, Kingston states that it has completed the smart meter deployment, and no forecasted installations are shown in row 42.

a) Please provide detailed explanation of the $153,000 of forecasted smart meter capital costs for 2013.

Response #3a)

Please see response to VECC question #5 a).

b) If the $153,000 is forecasted as smart meter expenditures for 600 new meters, as described on page 12 of the Application, this works out to $255 per meter.

1. Please confirm or correct this forecasted cost per meter.

Response #3b) 1

The forecast cost per meter is confirmed.

2. Please explain the derivation of this forecasted cost per meter, and explain any variation in the installed cost per meter for smart meters deployed from 2009 to 2012.in rows 42 and 44 of sheet 2.

Response #3b) 2

The 2009 – 2012 deployment benefited from the scale economies available from procuring and installing the total number of meters at one time. These economies are not available going forward.

4. Ref: Smart Meter Model, Sheet 2 – Smart Meter Costs

a) Kingston documents $1,276,224 for smart meter costs (i.e. procurement costs) and $89,563 for installation costs, both for the year 2009, on rows 42 and 44 of sheet 2. However, rows 25 and 27 show no smart meters actually deployed in 2009. Please explain the costs documented in 2009.

Response #4a)

Please see response to VECC Question #12 a).

b) Kingston documents 477 meter installations in 2011, and capital installation costs of $229,779, but shows no capital costs for smart meter capital (i.e. procurement costs for smart meters) in that year. Please explain the absence of smart meter costs in 2011.

Response #4b)

Please see response to VECC Question #12 b).

5. Ref: Application, page 12 – 2013 Costs

On page 12 of the Application states:

> ***It is anticipated that approximately 600 meters per year will be required for new services and as replacements for malfunctioning meters. Our AMI provider has advised us that a hardware upgrade of the Advanced Metering Control Computer (AMCC) known as a Regional Network Interface will be required in 2013.***

a) Please provide Kingston's estimate of the number of new residential and GS < 50 kW services (i.e., due to customer growth) that are forecasted for 2013.

Response # 5a)

Please see response to VECC Question #5 a).

b) Please confirm that the forecasted upgrade for the AMCC for 2013 corresponds with the $120,000 capital cost documented in cell U64 of Sheet 2 of the Smart Meter Model. In the alternative, please identify the costs.

Response #5b)

Yes confirmed.

c) The initial hardware capital costs for the AMCC were $120,584 in 2010, with additional costs of $6,000 in 2011 and $10,000 in 2012. The $120,000 forecasted for 2013 is almost equal to the initial costs in 2010. Please provide further details in support of the forecasted $120,000 for AMCC hardware capital investments in 2013.

Response #5 c)

Please see response to VECC Question #5 b).

6. Ref: Sheet 2 "Smart_Meter_Costs" (1.6.3 Costs for TOU rate implantation, CIS system upgrades, web presentation, integration with the MDM/R, etc.)

On sheet 2 of the Smart Meter Model, Kingston documents capital costs beyond minimum functionality in row 105 "1.6.3. Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc." of $47,257.

Please provide a further description of these capital costs.

Response #6

Please see response to VECC Question #9 a).

7. Ref: Smart Meter Model, Sheet 2 – Professional Fees

Kingston documents $86,195 under "1.5.3 Professional Fees" on row 86 of Sheet 2 of the Smart Meter Model. These fees were incurred from 2009 to 2011. Please provide a further explanation of the nature of these costs, including identification of the providers of the services for which these costs were incurred.

Response #7

The nature of the costs incurred from 2009 to 2011 under 1.5.3 Professional Fees in Sheet 2 of the Smart Meter Model, was related to business process review and legal fees. Providers of the services for which these costs were incurred were SPI Group, Osler, Hoskin & Harcourt LLP, London Hydro, Jomar, Util-Assist, Bell-Conference Call.

8. Ref: Smart Meter Model, Sheet 2 "Smart_Meter_Costs" (2.1.2 Other Labour and Security/2.2.1 Maintenance)

On Sheet 2 of the Smart Meter Model, Kingston has forecasted for 2013 a total of $169,830 for 2.1.2 other labour and has increasing expenses for 2.2.1 maintenance.

a) Please explain the OM&A expenses documented under "2.1.2 other labour" for year 2013. Also explain whether this is a one-time expense or recurring cost.

Response #8a)

Please see response to VECC Question #12 f).

The incremental labour is a recurring cost and phase 2 of the security audit is a one-time expense.

b) Please explain the increasing OM&A expenses under "2.2.1 Maintenance" for the period from 2010 to 2013 inclusive. Also explain whether these costs are one-time or recurring.

Response #8b)

Please see response to VECC Question #12 g).

These costs are recurring.

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

Kingston has input the following rates for taxes/PILS rates on Sheet 3 row 40, for the years 2006, 2007, 2008, 2009, 2010, 2011, 2012, and beyond. These are summarized in the following table:

Taxes/PILS								
Year	2006	2007	2008	2009	2010	2011	2012	2013
Aggregate Corporate Tax Rate	36.12%	36.12%	33.50%	33.00%	27.38%	21.00%	26.25%	25.50%
Capital Tax (until July 1st, 2010)	0.30%	0.225%	0.225%	0.225%	0.075%	0.00%	0.00%	0.00%

Please confirm that these are the tax rates corresponding to the taxes or PILS that underpins distribution rates in each of the historical years, and that Kingston forecasts it will pay in 2012 and 2013. In the alternative, please explain the tax rates input and their derivation.

Response #9

Kingston Hydro overrode the tax rates for 2010 and 2011 to correspond to the actual effective tax rate for the respective years as instructed in the comment by Keith C. Ritchie in the Smart Meter Model.

The 2012 and 2013 are the tax rates that were included in the model. The actual tax rate for 2012 and 2013 should be increased to 26.50% as the 2012 Ontario budget effectively froze the scheduled income tax reductions previously scheduled for Ontario corporations. The Smart Meter Model has been updated accordingly.

10 Ref: Sheet 3 "Cost_of_Service_Parameters" (Cost of Capital Parameters) and Kingston_RRWF_Evidence Update_2010204 (A. Data_Input_Sheet)

Kingston has input the following cost of service parameters on Sheet 3, for the years 2006, 2007, 2008, 2009, 2010, 2011, 2012 and 2013. These are summarized in the following table:

Year	2006	2007	2008	2009	2010	2011	2012	2013
Deemed Short-term Debt Rate				0.00%	0.00%	2.46%	1.33%	1.33%
Long-term Debt Rate (actual/embedded/deemed)[2]	6.57%	6.57%	6.57%	6.57%	6.57%	5.01%	5.87%	5.87%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.00%	9.58%		
Return on Preferred Shares								
WACC	7.79%	7.79%	7.70%	7.62%	7.54%	6.74%	3.34%	3.34%

Board staff notes that the long-term debt rate and ROE used in 2006 to 2010 (inclusive), correspond with the parameters approved in Kingston's 2006 EDR application [RP-2005-0020/EB-2005-0385] and that the cost of capital parameters for 2011 correspond with what was approved in Kingston's 2011 cost of service application [EB-2010-0140].

a) Please explain Kingston's cost of capital parameters of 1.33% short-term debt, 5.87% long-term debt and 0% ROE for each of 2012 and 2013, and why these differ from the cost of capital parameters approved in Kingston's most recent cost of service application for 2011.

Response #10a)

The 2012 and 2013 cost of capital parameters were the default values shown and should have included the actual 2011 costs of capital parameters per its 2011 Cost of Service Decision [EB-2010-0136].

b) If necessary, please update the Smart Meter Model to reflect the relevant cost of capital parameter values.

		Data Input									(1)
		Initial Application					(7)			Per Board Decision	
1	**Rate Base**										
	Gross Fixed Assets (average)	$49,850,935		($770,725)		$ 49,080,210				$49,080,210	
	Accumulated Depreciation (average)	($16,983,278)	(5)	$40,752		-$ 16,942,526				($16,942,526)	
	Allowance for Working Capital:										
	Controllable Expenses	$6,980,907		$102,734		$ 7,083,641				$7,083,641	
	Cost of Power	$61,518,323		($67,773)		$ 61,450,550				$61,450,550	
	Working Capital Rate (%)	15.00%				15.00%				15.00%	
2	**Utility Income**										
	Operating Revenues:										
	Distribution Revenue at Current Rates	$9,540,655		$10,120		$9,550,775					
	Distribution Revenue at Proposed Rates	$12,174,156		($32,454)		$12,141,702					
	Other Revenue:										
	Specific Service Charges	$268,031		$0		$268,031					
	Late Payment Charges	$37,901		$0		$37,901					
	Other Distribution Revenue	$105,546		$0		$105,546					
	Other Income and Deductions	$213,847		$58,271		$272,118					
	Operating Expenses:										
	OM+A Expenses	$6,850,907		$102,734		$ 6,953,641				$6,953,641	
	Depreciation/Amortization	$2,042,875		($30,660)		$ 2,012,215				$2,012,215	
	Property taxes	$130,000		$ -		$ 130,000				$130,000	
	Capital taxes	$0				$0					
	Other expenses	$ -		$ -		0				$0	
3	**Taxes/PILs**										
	Taxable Income:										
	Adjustments required to arrive at taxable income	$188,000	(3)			$214,136					
	Utility Income Taxes and Rates:										
	Income taxes (not grossed up)	$497,058				$496,375					
	Income taxes (grossed up)	$692,764				$691,812					
	Capital Taxes	$ -	(6)			$ -	(6)				(6)
	Federal tax (%)	16.50%				16.50%					
	Provincial tax (%)	11.75%				11.75%					
	Income Tax Credits	$ -				$ -					
4	**Capitalization/Cost of Capital**										
	Capital Structure:										
	Long-term debt Capitalization Ratio (%)	56.0%				56.0%					
	Short-term debt Capitalization Ratio (%)	4.0%	(2)			4.0%	(2)				(2)
	Common Equity Capitalization Ratio (%)	40.0%				40.0%					
	Prefered Shares Capitalization Ratio (%)										
		100.0%				100.0%					
	Cost of Capital										
	Long-term debt Cost Rate (%)	5.65%				5.60%				5.60%	
	Short-term debt Cost Rate (%)	2.07%				2.07%				2.07%	
	Common Equity Cost Rate (%)	9.85%				9.85%				9.85%	
	Prefered Shares Cost Rate (%)										

Response #10b)

The RRWF referenced in this question, Kingston_RRWF_Evidence Update_2010204 (A. Data_Input_Sheet), represents Kingston's original 2011 cost of service filing and not the final Decision of the Board.

Kingston has filed an updated Smart Meter model to reflect the correct cost of capital parameters per its Decision. The short term debt rate was 2.46%; the long term debt rate was 5.01% and the deemed return on equity was 9.58%. Evidence to support these values is provided in Kingston's 2011 COS Draft Rate Order RRWF (A.Data_Input_Sheet) Appendix J (20110630) included as Attachment 1 of this document.

Attachment 1: IRR Board Staff #10 b)

2011 COS (EB-2010-0136) Draft Rate Order RRWF

Ontario

Revenue Requirement Work Form

Name of LDC: Kingston Hydro Corporation
File Number: EB-2010-0136
Rate Year: 2011

		Data Input										(1)
		Initial Application		Adjustments		Argument-in-Chief	(7)	Adjustments		Per Board Decision		
1	**Rate Base**											
	Gross Fixed Assets (average)	$49,850,935		($770,725)		$ 49,080,210		$ -		$49,080,210		
	Accumulated Depreciation (average)	($16,983,278)	(5)	$40,752		-$ 16,942,526		($433,959)		($17,376,485)		
	Allowance for Working Capital:											
	Controllable Expenses	$6,980,907		$76,596		$ 7,057,503		($700,000)		$6,357,503		
	Cost of Power	$61,518,323		$45,710		$ 61,564,033		$2,652,260		$64,216,293		
	Working Capital Rate (%)	15.00%				15.00%				15.00%		
2	**Utility Income**											
	Operating Revenues:											
	Distribution Revenue at Current Rates	$9,540,655		$10,120		$9,550,775		$0		$9,550,775		
	Distribution Revenue at Proposed Rates	$12,174,156		($114,700)		$12,059,456		($967,419)		$11,092,037		
	Other Revenue:											
	Specific Service Charges	$268,031		$0		$268,031		$0		$268,031		
	Late Payment Charges	$37,901		$0		$37,901		$0		$37,901		
	Other Distribution Revenue	$105,546		$0		$105,546		$0		$105,546		
	Other Income and Deductions	$213,847		$58,271		$272,118		$0		$272,118		
	Operating Expenses:											
	OM+A Expenses	$6,850,907		$102,734		$ 6,953,641		($726,138)		$6,227,503		
	Depreciation/Amortization	$2,042,875		($30,660)		$ 2,012,215		$ -		$2,012,215		
	Property taxes	$130,000		$ -		$ 130,000		$ -		$130,000		
	Capital taxes	$0				$0				$0		
	Other expenses	$ -		$ -		0		$ -		$0		
3	**Taxes/PILs**											
	Taxable Income:											
	Adjustments required to arrive at taxable income	$188,000	(3)			$214,137				($75,962)		
	Utility Income Taxes and Rates:											
	Income taxes (not grossed up)	$497,058				$483,575				$400,095		
	Income taxes (grossed up)	$692,764				$673,972				$557,623		
	Capital Taxes	$ -	(6)			$ -	(6)			$ -		(6)
	Federal tax (%)	16.50%				16.50%				16.50%		
	Provincial tax (%)	11.75%				11.75%				11.75%		
	Income Tax Credits	$ -				$ -				$ -		
4	**Capitalization/Cost of Capital**											
	Capital Structure:											
	Long-term debt Capitalization Ratio (%)	56.0%				56.0%				56.0%		
	Short-term debt Capitalization Ratio (%)	4.0%	(2)			4.0%	(2)			4.0%		(2)
	Common Equity Capitalization Ratio (%)	40.0%				40.0%				40.0%		
	Prefered Shares Capitalization Ratio (%)											
		100.0%				100.0%				100.0%		
	Cost of Capital											
	Long-term debt Cost Rate (%)	5.65%				5.60%				5.01%		
	Short-term debt Cost Rate (%)	2.07%				2.46%				2.46%		
	Common Equity Cost Rate (%)	9.85%				9.85%				9.58%		
	Prefered Shares Cost Rate (%)											

Notes:

(Rate Base through Revenue Requirement), except for Notes that the utility may wish to use to support the data. Notes should be put on the applicable pages to explain numbers shown.

(1) All inputs are in dollars ($) except where inputs are individually identified as percentages (%)
(2) 4.0% unless an Applicant has proposed or been approved for another amount.
(3) Net of addbacks and deductions to arrive at taxable income.
(4) Average of Gross Fixed Assets at beginning and end of the Test Year
(5) Average of Accumulated Depreciation at the beginning and end of the Test Year. Enter as a negative amount.
(6) Not applicable as of July 1, 2010
(7) Select option from drop-down list by clicking on cell M10. This columnallows for the application update reflecting the end of discovery or Argument-in-Chief. Also, the outsome of any Settlement Process can be reflected.

11. Ref: Application, page 2 – Stranded Meters

On page 2 of its Application, Kingston states that it "is not requesting recovery of stranded meter costs at this time. The stranded meter costs will be addressed in Kingston Hydro's next Cost of Service application. In accordance with the Board's Smart Meter Funding and Cost Recovery – Final Dispositional Guideline (G-2011-001) the stranded meters will remain in rate base until the re-basing application. Kingston Hydro estimates the stranded meter costs at approximately $1,900,000 at December 31, 2011."

Since Kingston rebased its rates through a cost of service application for 2011, Kingston is next scheduled to apply for rates through a cost of service rates application for 2015.

a) Please confirm that Kingston Hydro is continuing to amortize the capital cost of conventional meters stranded through replacement by smart meters for residential and GS < 50 kW customers.

Response #11a)

Confirmed.

b) Please provide an estimate, by customer class, of the net book value of conventional meters stranded by replacement by smart meters as of December 31, 2014.

Response #11b)

Kingston Hydro does not have this information readily available at this time.

12 Ref: Smart Meter Model – Cost per Smart Meter Installed

Using the below table as a guide, please provide the following:

a. A table showing the cost per meter, in total and for each of Residential and GS < 50 kW customer classes, and broken out as.

- ***Minimum functionality: capital***
- ***Minimum functionality: capital and OM&A***
- ***Minimum functionality and beyond minimum functionality: capital***
- ***Minimum functionality and beyond minimum functionality: capital and OM&A.***

	2006	2007	2008	2009	2010	2011	2012	Total
Capital related to minimum functionality								
Capital beyond minimum functionality								
OM&A related to minimum functionality								
OM&A beyond minimum functionlity								
Number of Smart Meters Deployed								

	Total	Average per meter
Total (capex + opex)		
Capex only		
OM&A only		
Beyond minimum functionality only		

Response #12a)

The following table shows the cost per meter, in total by year, in terms of capital related to minimum functionality and beyond minimum functionality, and OM&A related and beyond minimum functionality. A breakdown by customer class is not available.

	2009	2010	2011	2012	2013	Total
Capital related to minimum functionality	$1,501,433	$2,850,218	$314,276	$153,609	$273,000	$5,092,536
Capital beyond minimum functionality		$ 4,525		$ 42,732		$ 47,256
OM&A related to minimum functionality		$ 85,831	$ 55,203	$ 94,307	$269,172	$ 504,514
OM&A beyond minimum functionality				$ 686	$ 4,350	$ 5,036
Total	**$1,501,433**	**$2,940,574**	**$369,479**	**$291,334**	**$546,522**	**$5,649,343**
Number of Meters Installed						26,385
Average Per Meter						214.11
Capital only						$5,139,793
OM&A only						$ 509,550
Beyond Minimum Functionality						$ 52,292

b. Please provide a breakdown of the meter types installed, by year, for the Residential and GS < 50 kW classes.

Response #12b)

A breakdown of smart meter types installed for each rate class is not available.

13. Ref: Application, Table 1.1 and Smart Meter Model

In its Application, Kingston proposes the following SMDRs and SMIRRs for residential and GS < 50 kW customer classes:

		Residential	GS < 50 kW
SMDR	**January 1, 2013 to December 31, 2014**	**$0.80**	**$0.65**
SMIRR	**January 1, 2013 until the effective date of rates from Kingston's next cost of service application**	**$2.22**	**$2.22**

Board staff observes that Kingston is proposing a SMDR for the GS < 50 kW class that is less than the SMDR for the residential class. This appears unintuitive as the SMFA was uniform for all customer classes at any point in time from May 1, 2006 to April 30, 2012, and, in general, the Board's experience is that the average cost for a GS < 50 kW smart meter is greater than that for an average residential smart meter, due to a higher proportion of more expensive polyphase meters for customers with 2-phase or 3-phase service. Combined, this should mean that the GS < 50 kW SMDR is no less than, and generally greater than that for the residential smart meter.

a) On row 48 of sheet "10A. Cost_Alloc_SMDR", the sum of the allocated revenues is 99%. No revenues are shown as being collected from GS > 50 kW or other metered customer classes.

1) Please explain why the SMFA revenue allocation only adds up to 99%.

Response #13a) 1)

98.69% of the SMFA revenue allocation is attributable to the Residential and GS < 50 rate classes. Revenue allocation for other metered customers (GS 50 to 4,999 [1.30%] and Large Use [0.01%]) is 1.31%. The Smart Meter Model has been updated to include this revenue allocation for other metered customer classes combined in one Cell X48 of sheet "10A. Cost_Alloc_SMDR".

2) Please explain how Kingston has determined the allocation of SMFA revenues, and how SMFA revenues from other meter customer classes collected since May 1, 2006 have been factored into the determination of class-specific SMDRs.

Response #13a) 2)

Kingston determined the allocation of SMFA revenues to customer classes using yearly average number of customers per class as the allocator and applying that to yearly SMFA revenues collected. Then totalling the yearly allocation by class and calculating the percentage of SMFA revenues attributable to each metered class. The basis of the customer numbers used to determine the yearly customer number class average was from Kingston's RRR filings. Class customer numbers is a suitable allocator for SMFA revenues since the SMFA was uniform for all customer classes.

Per the smart meter Guideline, and as calculated by the Smart Meter Model, the 1.31% of SMFA revenues collected from other metered customer classes has then been attributed evenly to the Residential and GS < 50 rate classes.

b) On page 17 of the Application, Kingston states that it used the number of installed smart meters for Residential and GS < 50 kW classes as the allocator for costs in the absence of class-specific cost data.

Please explain why Kingston Hydro does not have the information on the costs and types of smart meters installed per class, since this information is necessary for allocating meter costs in a cost allocation model (i.e. Sheet I7.1 of the Board-issued Cost Allocation model).

Response #13b)

Please see response to VECC #11d).

14. Ref: Operational Efficiencies and Cost Savings

On page 19 of Guideline G-2011-0001: Smart Meter Funding and Cost Recovery – Final Disposition, the Board states:

> ***"In considering the recovery of smart meter costs, the Board also expects that a distributor will provide evidence on any operational efficiencies and cost savings that result from smart meter implementation."***

a) Please discuss operational efficiencies and cost savings achieved by Kingston.

Response # 14a)

At this stage of the implementation of smart meters and Time-of-use billing, Kingston Hydro has not identified any cost savings as a result of the conversion. The audited annual cost of meter reading for 2011 is approximately $38,000, approximately a 75% increase over the audited annual cost in 2008 the year prior to the smart meter implementation. In part this increase is due to the fact that previously, Kingston Hydro, through its agreement with its service company affiliate Utilities Kingston, was able to achieve savings for meter reading by reading water, natural gas and electric meters at the same time. These savings are no longer available and Kingston Hydro bears the full cost of electricity meter reading.

Operational efficiencies that are achieved, for example, through not having to send resources out to the location to do a final meter read, are offset by the need to manage so much additional data. Prior to Time-of-use billing we managed 6 meters reads per customer per year, as well as, special reads such as a check read or a final read. We are now managing 8760 (365 x 24) meter reads per customer per year and resources are required to ensure that each interval is accounted for prior to preparing a customer bill.

b) Please explain if Kingston expects to achieve operational efficiencies and cost savings in the future. If so, please provide Kingston's estimates as to the timing and nature of these savings.

Response # 14b)

At this time we are still in the stage of understanding the impact of the smart meter implementation as it relates to potential operational efficiencies and cost savings. It is not certain that future efficiencies or costs savings will be achieved. There is a possibility, that as we gain a better understanding of the potential uses for the data that extend beyond the use for billing purposes, that we may be able to identify efficiencies in the future.

15. Ref: Smart Meter Model, Sheet 8A – Depreciation Expense

On Sheet 8A of the Smart Meter Model, Kingston has only input depreciation expenses for the following months: December 2010; December 2011, and March, April and May of 2012.

a) Please explain the credit entry of ($5,715.95) for April 2012.

Response #15a)

An entry was made in April, 2012 to adjust the 2012 depreciation expense to reflect the calculated accumulated depreciation as of April 30, 2012.

b) Monthly depreciation expenses should be available from the entries of the sub-account of Account 1556 – Smart Meter Operating Expenses. Please explain the absence of expenses for other months. If available, please update the entries on this sheet. These should also closely correspond with the depreciation expense calculated on sheet 4 of the Smart Meter Model.

Response #15b)

Sheet 8A of the Smart Meter Model was prepared on the basis of the entries that were actually made in the accounts up to the date the Smart Meter submission was being prepared.

A revised Sheet 8A has been prepared to reflect depreciation expense that equals the amounts on Sheet 4. This revision will be reflected in the updated Smart Meter Model.

16. Ref: Smart Meter Model

If Kingston has changed its inputs to the Smart Meter Model as a result of any of the above interrogatory responses, please update and re-file the Smart Meter Model in working Microsoft Excel format, using version 3.00 of the model.

Response #16

Kingston has updated the Smart Meter Model as a result of interrogatory responses listed below:

- VECC # 5b)
- Board Staff #9
- Board Staff #10b)
- Board Staff #13a) 1)
- Board Staff #15b)

Kingston will re-file the updated Smart Meter Model in working Microsoft Excel format, and as well has included a PDF copy as an attachment to this response.

17. Ref: Cost Allocation

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

Response #17a)

As a result of updates to the Smart Meter Model, the updated proposed SMDRs are as follows:

SMDR	January 1, 2013 to December 31, 2014	APPLICATION	UPDATE
Residential		$0.80	$1.12
GS< 50 kW		$0.65	$0.97

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

Response #17b)

The following table provides the SMIRRs proposed in the Application, and the Updated proposed SMIRRs calculated from revisions to the Smart Meter Model as a result of responses to interrogatories:

SMIRR	January 1, 2013 until the effective date of rates from Kingston's next cost of service application	APPLICATION	UPDATE
Residential		$2.22	$2.79
GS< 50 kW		$2.22	$2.79

Attachment 2: IRR Board Staff #16

Updated Smart Meter Model as a result of Interrogatory Responses

Smart Meter Model for Electricity Distributors (2013 Filers)

Version 3.00

Utility Name	Kingston Hydro Corporation
Assigned EB Number	EB-2012-0310
Name and Title	Sherry Gibson, Senior Advisor, Rates and Regulatory Affairs
Phone Number	613-546-1181 x 2383
Email Address	sgibson@kingstonhydro.com
Date	29/10/2012 10:07
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.

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

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

Smart Meter Capital Cost and Operational Expense Data		2006	2007	2008	2009	2010	2011	2012	2013	Total
		Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
Smart Meter Installation Plan										
Actual/Planned number of Smart Meters installed during the Calendar Year										
Residential						22,822	403	219	540	23984
General Service < 50 kW						3,066	74	29	60	3229
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)		0	0	0	0	25888	477	248	600	27213
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed		0.00%	0.00%	0.00%	0.00%	95.13%	96.88%	97.80%	100.00%	100.00%
Actual/Planned number of GS > 50 kW meters installed										0
Other (please identify)										0
Total Number of Smart Meters installed or planned to be installed		0	0	0	0	25888	477	248	600	27213
1 Capital Costs										
1.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)	**Asset Type** (Asset type must be selected to enable calculations)	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
1.1.1 Smart Meters *(may include new meters and modules, etc.)*	Smart Meter				1,276,224	1,917,732		133,103	153,000	$ 3,480,059
1.1.2 Installation Costs *(may include socket kits, labour, vehicle, benefits, etc.)*	Smart Meter				89,563	614,876	229,779	4,506		$ 938,724
1.1.3a Workforce Automation Hardware *(may include fieldwork handhelds, barcode hardware, etc.)*										$ -
1.1.3b Workforce Automation Software *(may include fieldwork handhelds, barcode hardware, etc.)*										$ -
Total Advanced Metering Communications Devices (AMCD)		$ -	$ -	$ -	$ 1,365,788	$ 2,532,607	$ 229,779	$ 137,609	$ 153,000	$ 4,418,783
1.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)	**Asset Type**	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	Forecast	
1.2.1 Collectors	Smart Meter				125,509	121,935				$ 247,444
1.2.2 Repeaters *(may include radio licence, etc.)*										$ -
1.2.3 Installation *(may include meter seals and rings, collector computer hardware, etc.)*										$ -
Total Advanced Metering Regional Collector (AMRC) (Includes LAN)		$ -	$ -	$ -	$ 125,509	$ 121,935	$ -	$ -	$ -	$ 247,444

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					120,584	6,000	10,000	93,000	$ 229,584
1.3.2 Computer Software	Computer Software						29,511	6,000		$ 35,511
1.3.3 Computer Software Licences & Installation (includes hardware and software) *(may include AS/400 disk space, backup and recovery computer, UPS, etc.)*										$ -
Total Advanced Metering Control Computer (AMCC)		$ -	$ -	$ -	$ -	$ 120,584	$ 35,511	$ 16,000	$ 93,000	$ 265,095

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										$ -
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)*	Smart Meter					40,460	7,558			$ 48,018
1.5.2 AMI Interface to CIS										$ -
1.5.3 Professional Fees	Smart Meter				10,137	34,631	41,427			$ 86,195
1.5.4 Integration										$ -
1.5.5 Program Management										$ -
1.5.6 Other AMI Capital										$ -
Total Other AMI Capital Costs Related to Minimum Functionality		$ -	$ -	$ -	$ 10,137	$ 75,091	$ 48,985	$ -	$ -	$ 134,213
Total Capital Costs Related to Minimum Functionality		$ -	$ -	$ -	$ 1,501,434	$ 2,850,217	$ 314,275	$ 153,609	$ 246,000	$ 5,065,535

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										$ -
1.6.2 Costs for deployment of smart meters to customers other than residential and small general service										$ -
1.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.	Computer Software					4,525		42,732		$ 47,257
Total Capital Costs Beyond Minimum Functionality		$ -	$ -	$ -	$ -	$ 4,525	$ -	$ 42,732	$ -	$ 47,257
Total Smart Meter Capital Costs		$ -	$ -	$ -	$ 1,501,434	$ 2,854,742	$ 314,275	$ 196,341	$ 246,000	$ 5,112,792

2 OM&A Expenses

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.)*					53,415				$	53,415
2.1.2 Other *(please specifiy)* Labour and Security								169,830	$	169,830
Total Incremental AMCD OM&A Costs	$ -	$ -	$ -	$ -	$ 53,415	$ -	$ -	$ 169,830	$	223,245
2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)										
2.2.1 Maintenance					23,369	46,503	80,207	85,134	$	235,213
2.2.2 Other *(please specifiy)*									$	-
Total Incremental AMRC OM&A Costs	$ -	$ -	$ -	$ -	$ 23,369	$ 46,503	$ 80,207	$ 85,134	$	235,213
2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)										
2.3.1 Hardware Maintenance *(may include server support, etc.)*									$	-
2.3.2 Software Maintenance *(may include maintenance support, etc.)*							5,400	5,508	$	10,908
2.3.2 Other *(please specifiy)*									$	-
Total Incremental AMCC OM&A Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,400	$ 5,508	$	10,908
2.4 WIDE AREA NETWORK (WAN)										
2.4.1 WAN Maintenance					9,048	8,700	8,700	8,700	$	35,148
2.4.2 Other *(please specifiy)*									$	-
Total Incremental AMRC OM&A Costs	$ -	$ -	$ -	$ -	$ 9,048	$ 8,700	$ 8,700	$ 8,700	$	35,148
2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY										
2.5.1 Business Process Redesign									$	-
2.5.2 Customer Communication (may include project communication, etc.)									$	-
2.5.3 Program Management									$	-
2.5.4 Change Management (may include training, etc.)									$	-
2.5.5 Administration Costs									$	-
2.5.6 Other AMI Expenses *(please specify)*									$	-
Total Other AMI OM&A Costs Related to Minimum Functionality	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$	-
TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY	$ -	$ -	$ -	$ -	$ 85,832	$ 55,203	$ 94,307	$ 269,172	$	504,514
2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY *(Please provide a descriptive title and identify nature of beyond minimum functionality costs)*	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual				
2.6.1 Costs related to technical capabilities in the smart meters or related communications infrastructure that exceed those specified in O.Reg 425/06									$	-
2.6.2 Costs for deployment of smart meters to customers other than residential and small general service									$	-
2.6.3 Costs for TOU rate implementation, CIS system upgrades, web presentation, integration with the MDM/R, etc.							686	4,350	$	5,036
Total OM&A Costs Beyond Minimum Functionality	$ -	$ -	$ -	$ -	$ -	$ -	$ 686	$ 4,350	$	5,036
Total Smart Meter OM&A Costs	$ -	$ -	$ -	$ -	$ 85,832	$ 55,203	$ 94,993	$ 273,522	$	509,550

3 Aggregate Smart Meter Costs by Category

3.1	**Capital**											
3.1.1	Smart Meter	$ -	$ -	$ -	$ 1,501,434	$ 2,729,633	$ 278,764	$ 137,609	$ 153,000	$ 4,800,440		
3.1.2	Computer Hardware	$ -	$ -	$ -	$ -	$ 120,584	$ 6,000	$ 10,000	$ 93,000	$ 229,584		
3.1.3	Computer Software	$ -	$ -	$ -	$ -	$ 4,525	$ 29,511	$ 48,732	$ -	$ 82,768		
3.1.4	Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		
3.1.5	Other Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		
3.1.6	Applications Software	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		
3.1.7	**Total Capital Costs**	**$ -**	**$ -**	**$ -**	**$ 1,501,434**	**$ 2,854,742**	**$ 314,275**	**$ 196,341**	**$ 246,000**	**$ 5,112,792**		
3.2	**OM&A Costs**											
3.2.1	**Total OM&A Costs**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 85,832**	**$ 55,203**	**$ 94,993**	**$ 273,522**	**$ 509,550**		

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				0.0%	0.0%	4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	60.0%	56.0%	56.0%	56.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	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				0.00%	0.00%	2.46%	2.46%	2.46%
Long-term Debt Rate (actual/embedded/deemed)[2]	6.57%	6.57%	6.57%	6.57%	6.57%	5.01%	5.01%	5.01%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.00%	9.58%	9.58%	9.58%
Return on Preferred Shares								
WACC	7.79%	7.79%	7.70%	7.62%	7.54%	6.74%	6.74%	6.74%
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%	27.38%	21.00%	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%

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	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%

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	46	46	46	46	46	46	46	46
Computer Equipment - CCA Rate	30%	30%	30%	30%	30%	30%	30%	30%
General Equipment - CCA Class								
General Equipment - CCA Rate								
Applications Software - CCA Class								
Applications Software - CCA Rate								

Assumptions

[1] *Planned smart meter installations occur evenly throughout the year.*

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

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

	2006	2007	2008	2009	2010	2011	2012	2013
Net Fixed Assets - Smart Meters								
Gross Book Value								
Opening Balance		$ -	$ -	$ -	$ 1,501,434	$ 4,231,067	$ 4,509,831	$ 4,647,440
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ 1,501,434	$ 2,729,633	$ 278,764	$ 137,609	$ 153,000
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ 1,501,434	$ 4,231,067	$ 4,509,831	$ 4,647,440	$ 4,800,440
Accumulated Depreciation								
Opening Balance		$ -	$ -	$ -	-$ 50,048	-$ 241,131	-$ 532,494	-$ 837,737
Amortization expense during year	$ -	$ -	$ -	-$ 50,048	-$ 191,083	-$ 291,363	-$ 305,242	-$ 314,929
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	-$ 50,048	-$ 241,131	-$ 532,494	-$ 837,737	-$ 1,152,666
Net Book Value								
Opening Balance	$ -	$ -	$ -	$ -	$ 1,451,386	$ 3,989,936	$ 3,977,336	$ 3,809,703
Closing Balance	$ -	$ -	$ -	$ 1,451,386	$ 3,989,936	$ 3,977,336	$ 3,809,703	$ 3,647,774
Average Net Book Value	$ -	$ -	$ -	$ 725,693	$ 2,720,661	$ 3,983,636	$ 3,893,520	$ 3,728,738
Net Fixed Assets - Computer Hardware								
Gross Book Value								
Opening Balance		$ -	$ -	$ -	$ -	$ 120,584	$ 126,584	$ 136,584
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ -	$ 120,584	$ 6,000	$ 10,000	$ 93,000
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ -	$ 120,584	$ 126,584	$ 136,584	$ 229,584
Accumulated Depreciation								
Opening Balance	$ -	$ -	$ -	$ -	$ -	-$ 12,058	-$ 36,775	-$ 63,092
Amortization expense during year	$ -	$ -	$ -	$ -	-$ 12,058	-$ 24,717	-$ 26,317	-$ 36,617
Retirements/Removals (if applicable)								
Closing Balance	$ -	$ -	$ -	$ -	-$ 12,058	-$ 36,775	-$ 63,092	-$ 99,709
Net Book Value								
Opening Balance	$ -	$ -	$ -	$ -	$ -	$ 108,526	$ 89,809	$ 73,492
Closing Balance	$ -	$ -	$ -	$ -	$ 108,526	$ 89,809	$ 73,492	$ 129,875
Average Net Book Value	$ -	$ -	$ -	$ -	$ 54,263	$ 99,167	$ 81,650	$ 101,684

Net Fixed Assets - Computer Software (including Applications Software)

Gross Book Value									
Opening Balance		$ -	$ -	$ -	$ -	$ -	$ 4,525	$ 34,036	$ 82,768
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ -	$ 4,525	$ 29,511	$ 48,732	$ -	
Retirements/Removals (if applicable)									
Closing Balance	$ -	$ -	$ -	$ -	$ 4,525	$ 34,036	$ 82,768	$ 82,768	
Accumulated Depreciation									
Opening Balance	$ -	$ -	$ -	$ -	$ -	-$ 453	-$ 4,309	-$ 15,989	
Amortization expense during year	$ -	$ -	$ -	$ -	-$ 453	-$ 3,856	-$ 11,680	-$ 16,554	
Retirements/Removals (if applicable)									
Closing Balance	$ -	$ -	$ -	$ -	-$ 453	-$ 4,309	-$ 15,989	-$ 32,543	
Net Book Value									
Opening Balance	$ -	$ -	$ -	$ -	$ -	$ 4,073	$ 29,727	$ 66,779	
Closing Balance	$ -	$ -	$ -	$ -	$ 4,073	$ 29,727	$ 66,779	$ 50,225	
Average Net Book Value	$ -	$ -	$ -	$ -	$ 2,036	$ 16,900	$ 48,253	$ 58,502	

Net Fixed Assets - Tools and Equipment

Gross Book Value									
Opening Balance		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Retirements/Removals (if applicable)									
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Accumulated Depreciation									
Opening Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Amortization expense during year	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Retirements/Removals (if applicable)									
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Net Book Value									
Opening Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Average Net Book Value	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	

Net Fixed Assets - Other Equipment

Gross Book Value									
Opening Balance		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Capital Additions during year (from Smart Meter Costs)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Retirements/Removals (if applicable)									
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Accumulated Depreciation									
Opening Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Amortization expense during year	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Retirements/Removals (if applicable)									
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Net Book Value									
Opening Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Closing Balance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Average Net Book Value	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	

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	$ -	$ -	$ -	$ 725,693	$ 2,720,661	$ 3,983,636	$ 3,893,520	$ 3,728,738
Computer Hardware	$ -	$ -	$ -	$ -	$ 54,263	$ 99,167	$ 81,650	$ 101,684
Computer Software	$ -	$ -	$ -	$ -	$ 2,036	$ 16,900	$ 48,253	$ 58,502
Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Net Fixed Assets	**$ -**	**$ -**	**$ -**	**$ 725,693**	**$ 2,776,960**	**$ 4,099,703**	**$ 4,023,423**	**$ 3,888,924**
Working Capital								
Operating Expenses (from Sheet 2)	$ -	$ -	$ -	$ -	$ 85,832	$ 55,203	$ 94,993	$ 273,522
Working Capital Factor (from Sheet 3)	15%	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	$ -	$ -	$ -	$ -	$ 12,875	$ 8,280	$ 14,249	$ 41,028
Incremental Smart Meter Rate Base	**$ -**	**$ -**	**$ -**	**$ 725,693**	**$ 2,789,835**	**$ 4,107,984**	**$ 4,037,672**	**$ 3,929,953**
Return on Rate Base								
Capital Structure								
Deemed Short Term Debt	$ -	$ -	$ -	$ -	$ -	$ 164,319	$ 161,507	$ 157,198
Deemed Long Term Debt	$ -	$ -	$ -	$ 411,468	$ 1,673,901	$ 2,300,471	$ 2,261,097	$ 2,200,773
Equity	$ -	$ -	$ -	$ 314,225	$ 1,115,934	$ 1,643,193	$ 1,615,069	$ 1,571,981
Preferred Shares	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Capitalization	$ -	$ -	$ -	$ 725,693	$ 2,789,835	$ 4,107,984	$ 4,037,672	$ 3,929,953
Return on								
Deemed Short Term Debt	$ -	$ -	$ -	$ -	$ -	$ 4,042	$ 3,973	$ 3,867
Deemed Long Term Debt	$ -	$ -	$ -	$ 27,033	$ 109,975	$ 115,254	$ 113,281	$ 110,259
Equity	$ -	$ -	$ -	$ 28,280	$ 100,434	$ 157,418	$ 154,724	$ 150,596
Preferred Shares	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Return on Capital	$ -	$ -	$ -	$ 55,314	$ 210,409	$ 276,714	$ 271,978	$ 264,722
Operating Expenses	$ -	$ -	$ -	$ -	$ 85,832	$ 55,203	$ 94,993	$ 273,522
Amortization Expenses (from Sheet 4)								
Smart Meters	$ -	$ -	$ -	$ 50,048	$ 191,083	$ 291,363	$ 305,242	$ 314,929
Computer Hardware	$ -	$ -	$ -	$ -	$ 12,058	$ 24,717	$ 26,317	$ 36,617
Computer Software	$ -	$ -	$ -	$ -	$ 453	$ 3,856	$ 11,680	$ 16,554
Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Amortization Expense in Year	$ -	$ -	$ -	$ 50,048	$ 203,594	$ 319,936	$ 343,240	$ 368,100
Incremental Revenue Requirement before Taxes/PILs	$ -	$ -	$ -	$ 105,361	$ 499,836	$ 651,853	$ 710,210	$ 906,343
Calculation of Taxable Income								
Incremental Operating Expenses	$ -	$ -	$ -	$ -	$ 85,832	$ 55,203	$ 94,993	$ 273,522
Amortization Expense	$ -	$ -	$ -	$ 50,048	$ 203,594	$ 319,936	$ 343,240	$ 368,100
Interest Expense	$ -	$ -	$ -	$ 27,033	$ 109,975	$ 119,296	$ 117,254	$ 114,126
Net Income for Taxes/PILs	$ -	$ -	$ -	$ 28,280	$ 100,434	$ 157,418	$ 154,724	$ 150,596
Grossed-up Taxes/PILs (from Sheet 7)	$ -	$ -	$ -	-$ 32,106.10	-$ 94,181.83	-$ 78,495.39	-$ 62,087.40	-$ 23,521.81
Revenue Requirement, including Grossed-up Taxes/PILs	$ -	$ -	$ -	$ 73,255	$ 405,654	$ 573,358	$ 648,123	$ 882,822

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	$ -	$ -	$ -	$ -	$ 1,351,290.15	$ 3,537,702.16	$ 3,081,049.33	$ 2,588,687.56
Capital Additions	$ -	$ -	$ -	$ 1,501,433.50	$ 2,729,633.38	$ 278,764.00	$ 137,609.00	$ 153,000.00
Retirements/Removals (if applicable)								
UCC Before Half Year Rule	$ -	$ -	$ -	$ 1,501,433.50	$ 4,080,923.53	$ 3,816,466.16	$ 3,218,658.33	$ 2,741,687.56
Half Year Rule (1/2 Additions - Disposals)	$ -	$ -	$ -	$ 750,716.75	$ 1,364,816.69	$ 139,382.00	$ 68,804.50	$ 76,500.00
Reduced UCC	$ -	$ -	$ -	$ 750,716.75	$ 2,716,106.84	$ 3,677,084.16	$ 3,149,853.83	$ 2,665,187.56
CCA Rate Class	8	8	8	8	8	8	8	8
CCA Rate	20%	20%	20%	20%	20%	20%	20%	20%
CCA	$ -	$ -	$ -	$ 150,143.35	$ 543,221.37	$ 735,416.83	$ 629,970.77	$ 533,037.51
Closing UCC	$ -	$ -	$ -	$ 1,351,290.15	$ 3,537,702.16	$ 3,081,049.33	$ 2,588,687.56	$ 2,208,650.05

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	$ -	$ -	$ -	$ -	$ -	$ 106,342.65	$ 104,624.21	$ 123,159.14
Capital Additions Computer Hardware	$ -	$ -	$ -	$ -	$ 120,584.00	$ 6,000.00	$ 10,000.00	$ 93,000.00
Capital Additions Computer Software	$ -	$ -	$ -	$ -	$ 4,525.00	$ 29,511.00	$ 48,732.00	$ -
Retirements/Removals (if applicable)								
UCC Before Half Year Rule	$ -	$ -	$ -	$ -	$ 125,109.00	$ 141,853.65	$ 163,356.21	$ 216,159.14
Half Year Rule (1/2 Additions - Disposals)	$ -	$ -	$ -	$ -	$ 62,554.50	$ 17,755.50	$ 29,366.00	$ 46,500.00
Reduced UCC	$ -	$ -	$ -	$ -	$ 62,554.50	$ 124,098.15	$ 133,990.21	$ 169,659.14
CCA Rate Class	46	46	46	46	46	46	46	46
CCA Rate	30%	30%	30%	30%	30%	30%	30%	30%
CCA	$ -	$ -	$ -	$ -	$ 18,766.35	$ 37,229.45	$ 40,197.06	$ 50,897.74
Closing UCC	$ -	$ -	$ -	$ -	$ 106,342.65	$ 104,624.21	$ 123,159.14	$ 165,261.40

UCC - General Equipment

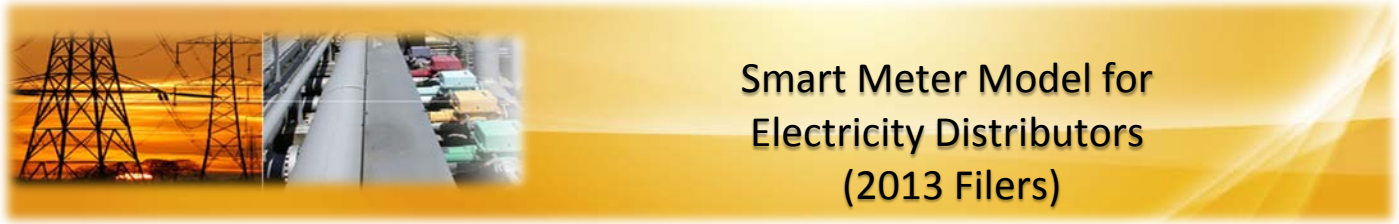
	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast
Opening UCC	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Capital Additions Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Capital Additions Other Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Retirements/Removals (if applicable)								
UCC Before Half Year Rule	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Half Year Rule (1/2 Additions - Disposals)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reduced UCC	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CCA Rate Class	0	0	0	0	0	0	0	0
CCA Rate	0%	0%	0%	0%	0%	0%	0%	0%
CCA	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Closing UCC	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

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	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Capital Additions Applications Software	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Retirements/Removals (if applicable)								
UCC Before Half Year Rule	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Half Year Rule (1/2 Additions - Disposals)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reduced UCC	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CCA Rate Class	0	0	0	0	0	0	0	0
CCA Rate	0%	0%	0%	0%	0%	0%	0%	0%
CCA	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Closing UCC	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

PILs Calculation

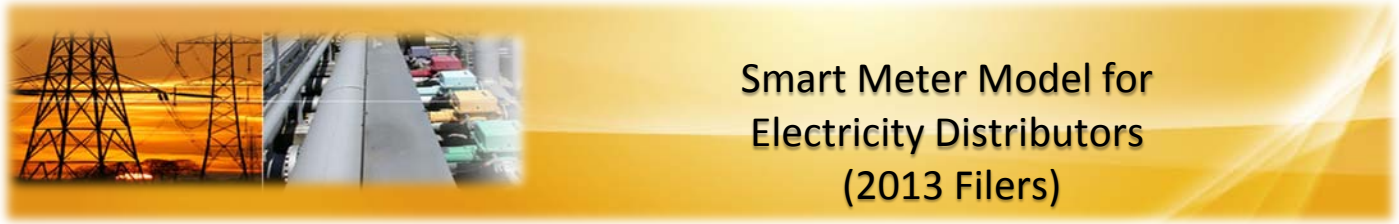
	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Forecast	2013 Forecast
INCOME TAX								
Net Income	$ -	$ -	$ -	$ 28,280.25	$ 100,434.05	$ 157,417.94	$ 154,723.60	$ 150,595.78
Amortization	$ -	$ -	$ -	$ 50,047.78	$ 203,594.25	$ 319,936.16	$ 343,239.56	$ 368,099.73
CCA - Smart Meters	$ -	$ -	$ -	-$ 150,143.35	-$ 543,221.37	-$ 735,416.83	-$ 629,970.77	-$ 533,037.51
CCA - Computers	$ -	$ -	$ -	$ -	-$ 18,766.35	-$ 37,229.45	-$ 40,197.06	-$ 50,897.74
CCA - Applications Software	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CCA - Other Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Change in taxable income	$ -	$ -	$ -	-$ 71,815.32	-$ 257,959.43	-$ 295,292.18	-$ 172,204.66	-$ 65,239.75
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	27.38%	21.00%	26.50%	26.50%
Income Taxes Payable	$ -	$ -	$ -	-$ 23,699.05	-$ 70,629.29	-$ 62,011.36	-$ 45,634.24	-$ 17,288.53
ONTARIO CAPITAL TAX								
Smart Meters	$ -	$ -	$ -	$ 1,451,385.72	$ 3,989,935.75	$ 3,977,336.49	$ 3,809,703.13	$ 3,647,773.81
Computer Hardware	$ -	$ -	$ -	$ -	$ 108,525.60	$ 89,808.80	$ 73,492.00	$ 129,875.20
Computer Software (Including Application Software)	$ -	$ -	$ -	$ -	$ 4,072.50	$ 29,727.40	$ 66,779.00	$ 50,225.40
Tools & Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Rate Base	$ -	$ -	$ -	$ 1,451,385.72	$ 4,102,533.85	$ 4,096,872.69	$ 3,949,974.13	$ 3,827,874.41
Less: Exemption								
Deemed Taxable Capital	$ -	$ -	$ -	$ 1,451,385.72	$ 4,102,533.85	$ 4,096,872.69	$ 3,949,974.13	$ 3,827,874.41
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)	$ -	$ -	$ -	$ 3,265.62	$ 3,076.90	$ -	$ -	$ -
Change in Income Taxes Payable	$ -	$ -	$ -	-$ 23,699.05	-$ 70,629.29	-$ 62,011.36	-$ 45,634.24	-$ 17,288.53
Change in OCT	$ -	$ -	$ -	$ 3,265.62	$ 3,076.90	$ -	$ -	$ -
PILs	$ -	$ -	$ -	-$ 20,433.44	-$ 67,552.39	-$ 62,011.36	-$ 45,634.24	-$ 17,288.53
Gross Up PILs								
Tax Rate	36.12%	36.12%	33.50%	33.00%	27.38%	21.00%	26.50%	26.50%
Change in Income Taxes Payable	$ -	$ -	$ -	-$ 35,371.72	-$ 97,258.73	-$ 78,495.39	-$ 62,087.40	-$ 23,521.81
Change in OCT	$ -	$ -	$ -	$ 3,265.62	$ 3,076.90	$ -	$ -	$ -
PILs	**$ -**	**$ -**	**$ -**	**-$ 32,106.10**	**-$ 94,181.83**	**-$ 78,495.39**	**-$ 62,087.40**	**-$ 23,521.81**



This worksheet calculates the funding adder revenues.

Account 1555 - Sub-account Funding Adder Revenues

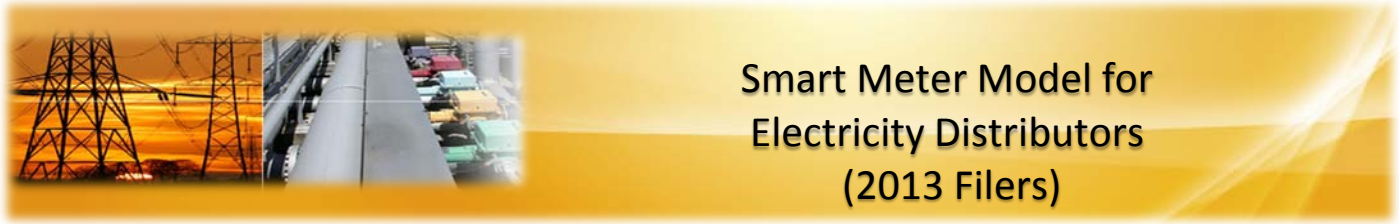
Interest Rates	Approved Deferral and Variance Accounts	CWIP	Date	Year	Quarter	Opening Balance (Principal)	Funding Adder Revenues	Interest Rate	Interest	Closing Balance	Annual amounts	Board Approved Smart Meter Funding Adder
2006 Q1			Jan-06	2006	Q1	$ -		0.00%	$ -	$ -		
2006 Q2	4.14%	4.68%	Feb-06	2006	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	$ -	$ 6,450.77	4.14%	$ -	$ 6,450.77		$ 0.26
2007 Q2	4.59%	4.72%	Jun-06	2006	Q2	$ 6,450.77	$ 7,017.49	4.14%	$ 22.26	$ 13,490.52		$ 0.26
2007 Q3	4.59%	5.18%	Jul-06	2006	Q3	$ 13,468.26	$ 6,421.54	4.59%	$ 51.52	$ 19,941.32		$ 0.26
2007 Q4	5.14%	5.18%	Aug-06	2006	Q3	$ 19,889.80	$ 7,287.89	4.59%	$ 76.08	$ 27,253.77		$ 0.26
2008 Q1	5.14%	5.18%	Sep-06	2006	Q3	$ 27,177.69	$ 6,422.79	4.59%	$ 103.95	$ 33,704.43		$ 0.26
2008 Q2	4.08%	5.18%	Oct-06	2006	Q4	$ 33,600.48	$ 7,382.04	4.59%	$ 128.52	$ 41,111.04		$ 0.26
2008 Q3	3.35%	5.43%	Nov-06	2006	Q4	$ 40,982.52	$ 6,966.70	4.59%	$ 156.76	$ 48,105.98		$ 0.26
2008 Q4	3.35%	5.43%	Dec-06	2006	Q4	$ 47,949.22	$ 5,722.36	4.59%	$ 183.41	$ 53,854.99	$ 54,394.08	$ 0.26
2009 Q1	2.45%	6.61%	Jan-07	2007	Q1	$ 53,671.58	$ 8,192.82	4.59%	$ 205.29	$ 62,069.69		$ 0.26
2009 Q2	1.00%	6.61%	Feb-07	2007	Q1	$ 61,864.40	$ 6,424.95	4.59%	$ 236.63	$ 68,525.98		$ 0.26
2009 Q3	0.55%	5.67%	Mar-07	2007	Q1	$ 68,289.35	$ 7,429.06	4.59%	$ 261.21	$ 75,979.62		$ 0.26
2009 Q4	0.55%	4.66%	Apr-07	2007	Q2	$ 75,718.41	$ 6,548.05	4.59%	$ 289.62	$ 82,556.08		$ 0.26
2010 Q1	0.55%	4.34%	May-07	2007	Q2	$ 82,266.46	$ 7,177.58	4.59%	$ 314.67	$ 89,758.71		$ 0.26
2010 Q2	0.55%	4.34%	Jun-07	2007	Q2	$ 89,444.04	$ 6,838.65	4.59%	$ 342.12	$ 96,624.81		$ 0.26
2010 Q3	0.89%	4.66%	Jul-07	2007	Q3	$ 96,282.69	$ 6,899.41	4.59%	$ 368.28	$ 103,550.38		$ 0.26
2010 Q4	1.20%	4.01%	Aug-07	2007	Q3	$ 103,182.10	$ 6,981.62	4.59%	$ 394.67	$ 110,558.39		$ 0.26
2011 Q1	1.47%	4.29%	Sep-07	2007	Q3	$ 110,163.72	$ 6,186.72	4.59%	$ 421.38	$ 116,771.81		$ 0.26
2011 Q2	1.47%	4.29%	Oct-07	2007	Q4	$ 116,350.43	$ 7,599.39	5.14%	$ 498.37	$ 124,448.20		$ 0.26
2011 Q3	1.47%	4.29%	Nov-07	2007	Q4	$ 123,949.83	$ 7,104.34	5.14%	$ 530.92	$ 131,585.09		$ 0.26
2011 Q4	1.47%	3.92%	Dec-07	2007	Q4	$ 131,054.17	$ 6,038.80	5.14%	$ 561.35	$ 137,654.32	$ 87,845.90	$ 0.26
2012 Q1	1.47%	3.92%	Jan-08	2008	Q1	$ 137,092.97	$ 7,969.60	5.14%	$ 587.21	$ 145,649.78		$ 0.26
2012 Q2	1.47%	3.51%	Feb-08	2008	Q1	$ 145,062.57	$ 6,552.38	5.14%	$ 621.35	$ 152,236.30		$ 0.26
2012 Q3	1.47%	3.51%	Mar-08	2008	Q1	$ 151,614.95	$ 6,270.36	5.14%	$ 649.42	$ 158,534.73		$ 0.26
2012 Q4			Apr-08	2008	Q2	$ 157,885.31	$ 7,967.76	4.08%	$ 536.81	$ 166,389.88		$ 0.26
2013 Q1			May-08	2008	Q2	$ 165,853.07	$ 6,406.47	4.08%	$ 563.90	$ 172,823.44		$ 0.26
2013 Q2			Jun-08	2008	Q2	$ 172,259.54	$ 7,461.33	4.08%	$ 585.68	$ 180,306.56		$ 0.26
2013 Q3			Jul-08	2008	Q3	$ 179,720.88	$ 7,263.76	3.35%	$ 501.72	$ 187,486.36		$ 0.26
2013 Q4			Aug-08	2008	Q3	$ 186,984.64	$ 6,801.39	3.35%	$ 522.00	$ 194,308.02		$ 0.26



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
			Sep-08	2008	Q3	$ 193,786.02	$ 7,007.37	3.35%	$ 540.99	$ 201,334.38		$ 0.26
			Oct-08	2008	Q4	$ 200,793.39	$ 7,125.36	3.35%	$ 560.55	$ 208,479.30		$ 0.26
			Nov-08	2008	Q4	$ 207,918.75	$ 6,361.19	3.35%	$ 580.44	$ 214,860.39		$ 0.26
			Dec-08	2008	Q4	$ 214,279.95	$ 7,053.93	3.35%	$ 598.20	$ 221,932.08	$ 91,089.18	$ 0.26
			Jan-09	2009	Q1	$ 221,333.88	$ 7,972.81	2.45%	$ 451.89	$ 229,758.58		$ 0.26
			Feb-09	2009	Q1	$ 229,306.69	$ 6,190.91	2.45%	$ 468.17	$ 235,965.77		$ 0.26
			Mar-09	2009	Q1	$ 235,497.60	$ 8,068.62	2.45%	$ 480.81	$ 244,047.03		$ 0.26
			Apr-09	2009	Q2	$ 243,566.22	$ 6,464.22	1.00%	$ 202.97	$ 250,233.41		$ 0.26
			May-09	2009	Q2	$ 250,030.44	$ 5,965.97	1.00%	$ 208.36	$ 256,204.77		$ 0.26
			Jun-09	2009	Q2	$ 255,996.41	$ 7,390.71	1.00%	$ 213.33	$ 263,600.45		$ 0.26
			Jul-09	2009	Q3	$ 263,387.12	$ 7,573.21	0.55%	$ 120.72	$ 271,081.06		$ 0.26
			Aug-09	2009	Q3	$ 270,960.34	$ 6,641.21	0.55%	$ 124.19	$ 277,725.74		$ 0.26
			Sep-09	2009	Q3	$ 277,601.55	$ 6,872.68	0.55%	$ 127.23	$ 284,601.46		$ 0.26
			Oct-09	2009	Q4	$ 284,474.23	$ 7,009.38	0.55%	$ 130.38	$ 291,613.99		$ 0.26
			Nov-09	2009	Q4	$ 291,483.61	$ 6,943.96	0.55%	$ 133.60	$ 298,561.17		$ 0.26
			Dec-09	2009	Q4	$ 298,427.57	$ 6,408.93	0.55%	$ 136.78	$ 304,973.28	$ 86,301.05	$ 0.26
			Jan-10	2010	Q1	$ 304,836.50	$ 7,522.82	0.55%	$ 139.72	$ 312,499.04		$ 0.26
			Feb-10	2010	Q1	$ 312,359.32	$ 6,433.46	0.55%	$ 143.16	$ 318,935.94		$ 0.26
			Mar-10	2010	Q1	$ 318,792.78	$ 7,957.11	0.55%	$ 146.11	$ 326,896.00		$ 0.26
			Apr-10	2010	Q2	$ 326,749.89	$ 6,740.62	0.55%	$ 149.76	$ 333,640.27		$ 0.26
			May-10	2010	Q2	$ 333,490.51	$ 6,627.14	0.55%	$ 152.85	$ 340,270.50		$ 0.26
			Jun-10	2010	Q2	$ 340,117.65	$ 23,309.02	0.55%	$ 155.89	$ 363,582.56		$ 1.00
			Jul-10	2010	Q3	$ 363,426.67	$ 28,035.60	0.89%	$ 269.54	$ 391,731.81		$ 1.00
			Aug-10	2010	Q3	$ 391,462.27	$ 26,119.29	0.89%	$ 290.33	$ 417,871.89		$ 1.00
			Sep-10	2010	Q3	$ 417,581.56	$ 26,691.76	0.89%	$ 309.71	$ 444,583.03		$ 1.00
			Oct-10	2010	Q4	$ 444,273.32	$ 27,103.26	1.20%	$ 444.27	$ 471,820.85		$ 1.00
			Nov-10	2010	Q4	$ 471,376.58	$ 25,884.06	1.20%	$ 471.38	$ 497,732.02		$ 1.00
			Dec-10	2010	Q4	$ 497,260.64	$ 26,336.82	1.20%	$ 497.26	$ 524,094.72	$ 221,930.94	$ 1.00
			Jan-11	2011	Q1	$ 523,597.46	$ 28,278.08	1.47%	$ 641.41	$ 552,516.95		$ 1.00
			Feb-11	2011	Q1	$ 551,875.54	$ 23,547.09	1.47%	$ 676.05	$ 576,098.68		$ 1.00
			Mar-11	2011	Q1	$ 575,422.63	$ 32,247.81	1.47%	$ 704.89	$ 608,375.33		$ 1.00
			Apr-11	2011	Q2	$ 607,670.44	$ 22,992.52	1.47%	$ 744.40	$ 631,407.36		$ 1.00
			May-11	2011	Q2	$ 630,662.96	$ 29,240.42	1.47%	$ 772.56	$ 660,675.94		$ 1.00



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
			Jun-11	2011	Q2	$ 659,903.38	$ 28,177.77	1.47%	$ 808.38	$ 688,889.53		$ 1.00
			Jul-11	2011	Q3	$ 688,081.15	$ 27,449.28	1.47%	$ 842.90	$ 716,373.33		$ 1.00
			Aug-11	2011	Q3	$ 715,530.43	$ 24,059.80	1.47%	$ 876.52	$ 740,466.75		$ 1.00
			Sep-11	2011	Q3	$ 739,590.23	$ 28,848.34	1.47%	$ 906.00	$ 769,344.57		$ 1.00
			Oct-11	2011	Q4	$ 768,438.57	$ 26,902.51	1.47%	$ 941.34	$ 796,282.42		$ 1.00
			Nov-11	2011	Q4	$ 795,341.08	$ 24,095.82	1.47%	$ 974.29	$ 820,411.19		$ 1.00
			Dec-11	2011	Q4	$ 819,436.90	$ 24,065.84	1.47%	$ 1,003.81	$ 844,506.55	$ 329,797.83	$ 1.00
			Jan-12	2012	Q1	$ 843,502.74	$ 31,290.20	1.47%	$ 1,033.29	$ 875,826.23		$ 1.00
			Feb-12	2012	Q1	$ 874,792.94	$ 21,821.65	1.47%	$ 1,071.62	$ 897,686.21		$ 1.00
			Mar-12	2012	Q1	$ 896,614.59	$ 30,657.65	1.47%	$ 1,098.35	$ 928,370.59		$ 1.00
			Apr-12	2012	Q2	$ 927,272.24	$ 27,620.75	1.47%	$ 1,135.91	$ 956,028.90		$ 1.00
			May-12	2012	Q2	$ 954,892.99	$ 24,059.10	1.47%	$ 1,169.74	$ 980,121.83		$ 1.00
			Jun-12	2012	Q2	$ 978,952.09	$ 4,228.79	1.47%	$ 1,199.22	$ 984,380.10		$ 1.00
			Jul-12	2012	Q3	$ 983,180.88		1.47%	$ 1,204.40	$ 984,385.28		
			Aug-12	2012	Q3	$ 983,180.88		1.47%	$ 1,204.40	$ 984,385.28		
			Sep-12	2012	Q3	$ 983,180.88		1.47%	$ 1,204.40	$ 984,385.28		
			Oct-12	2012	Q4	$ 983,180.88		1.47%	$ 1,204.40	$ 984,385.28		
			Nov-12	2012	Q4	$ 983,180.88		1.47%	$ 1,204.40	$ 984,385.28		
			Dec-12	2012	Q4	$ 983,180.88		1.47%	$ 1,204.40	$ 984,385.28	$ 153,612.67	
			Jan-13	2013	Q1	$ 983,180.88		0.00%	$ -	$ 983,180.88		
			Feb-13	2013	Q1	$ 983,180.88		0.00%	$ -	$ 983,180.88		
			Mar-13	2013	Q1	$ 983,180.88		0.00%	$ -	$ 983,180.88		
			Apr-13	2013	Q2	$ 983,180.88		0.00%	$ -	$ 983,180.88		
			May-13	2013	Q2	$ 983,180.88		0.00%	$ -	$ 983,180.88		
			Jun-13	2013	Q2	$ 983,180.88		0.00%	$ -	$ 983,180.88		
			Jul-13	2013	Q3	$ 983,180.88		0.00%	$ -	$ 983,180.88		
			Aug-13	2013	Q3	$ 983,180.88		0.00%	$ -	$ 983,180.88		
			Sep-13	2013	Q3	$ 983,180.88		0.00%	$ -	$ 983,180.88		
			Oct-13	2013	Q4	$ 983,180.88		0.00%	$ -	$ 983,180.88		
			Nov-13	2013	Q4	$ 983,180.88		0.00%	$ -	$ 983,180.88		
			Dec-13	2013	Q4	$ 983,180.88		0.00%	$ -	$ 983,180.88	$ -	
			Total Funding Adder Revenues Collected				**$ 983,180.88**		**$ 41,790.77**	**$ 1,024,971.65**	**$ 1,024,971.65**	

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	-			-	5.14%	-	-
2012 Q2	1.47%	3.51%	Feb-08	2008	Q1	-			-	5.14%	-	-
2012 Q3	1.47%	3.51%	Mar-08	2008	Q1	-			-	5.14%	-	-
2012 Q4	0.00%	0.00%	Apr-08	2008	Q2	-			-	4.08%	-	-
2013 Q1	0.00%	0.00%	May-08	2008	Q2	-			-	4.08%	-	-
2013 Q2	0.00%	0.00%	Jun-08	2008	Q2	-			-	4.08%	-	-
2013 Q3	0.00%	0.00%	Jul-08	2008	Q3	-			-	3.35%	-	-
2013 Q4	0.00%	0.00%	Aug-08	2008	Q3	-			-	3.35%	-	-
			Sep-08	2008	Q3	-			-	3.35%	-	-
			Oct-08	2008	Q4	-			-	3.35%	-	-
			Nov-08	2008	Q4	-			-	3.35%	-	-
			Dec-08	2008	Q4	-			-	3.35%	-	-
			Jan-09	2009	Q1	-		$ 4,170.66	4,170.66	2.45%	-	-
			Feb-09	2009	Q1	4,170.66		$ 4,170.66	8,341.32	2.45%	8.52	8.52

Mar-09	2009	Q1	8,341.32		$ 4,170.66	12,511.98	2.45%	17.03	25.55
Apr-09	2009	Q2	12,511.98		$ 4,170.66	16,682.64	1.00%	10.43	35.97
May-09	2009	Q2	16,682.64		$ 4,170.66	20,853.30	1.00%	13.90	49.87
Jun-09	2009	Q2	20,853.30		$ 4,170.66	25,023.96	1.00%	17.38	67.25
Jul-09	2009	Q3	25,023.96		$ 4,170.66	29,194.62	0.55%	11.47	78.72
Aug-09	2009	Q3	29,194.62		$ 4,170.67	33,365.29	0.55%	13.38	92.10
Sep-09	2009	Q3	33,365.29		$ 4,170.67	37,535.96	0.55%	15.29	107.39
Oct-09	2009	Q4	37,535.96		$ 4,170.67	41,706.63	0.55%	17.20	124.60
Nov-09	2009	Q4	41,706.63		$ 4,170.67	45,877.30	0.55%	19.12	143.71
Dec-09	2009	Q4	45,877.30		$ 4,170.67	50,047.97	0.55%	21.03	164.74
Jan-10	2010	Q1	50,047.97		$ 16,966.16	67,014.13	0.55%	22.94	187.68
Feb-10	2010	Q1	67,014.13		$ 16,966.16	83,980.29	0.55%	30.71	218.39
Mar-10	2010	Q1	83,980.29		$ 16,966.16	100,946.45	0.55%	38.49	256.89
Apr-10	2010	Q2	100,946.45		$ 16,966.16	117,912.61	0.55%	46.27	303.15
May-10	2010	Q2	117,912.61		$ 16,966.16	134,878.77	0.55%	54.04	357.20
Jun-10	2010	Q2	134,878.77	$ 10,248.00	$ 16,966.16	162,092.93	0.55%	61.82	419.02
Jul-10	2010	Q3	162,092.93	$ 235.00	$ 16,966.16	179,294.09	0.89%	120.22	539.23
Aug-10	2010	Q3	179,294.09	$ 4,120.00	$ 16,966.16	200,380.25	0.89%	132.98	672.21
Sep-10	2010	Q3	200,380.25	$ 4,542.56	$ 16,966.16	221,888.97	0.89%	148.62	820.83
Oct-10	2010	Q4	221,888.97	$ 7,659.66	$ 16,966.16	246,514.79	1.20%	221.89	1,042.72
Nov-10	2010	Q4	246,514.79	$ 4,075.46	$ 16,966.16	267,556.41	1.20%	246.51	1,289.23
Dec-10	2010	Q4	267,556.41	$ 54,950.68	$ 16,966.16	339,473.25	1.20%	267.56	1,556.79
Jan-11	2011	Q1	339,473.25	$ 4,189.81	$ 26,661.34	370,324.40	1.47%	415.85	1,972.64
Feb-11	2011	Q1	370,324.40		$ 26,661.34	396,985.74	1.47%	453.65	2,426.29
Mar-11	2011	Q1	396,985.74	$ 11,422.61	$ 26,661.34	435,069.69	1.47%	486.31	2,912.60
Apr-11	2011	Q2	435,069.69	$ 235.00	$ 26,661.34	461,966.03	1.47%	532.96	3,445.56
May-11	2011	Q2	461,966.03	-$ 21.00	$ 26,661.34	488,606.37	1.47%	565.91	4,011.46
Jun-11	2011	Q2	488,606.37	$ 3,727.67	$ 26,661.34	518,995.38	1.47%	598.54	4,610.01
Jul-11	2011	Q3	518,995.38	$ 3,805.59	$ 26,661.34	549,462.31	1.47%	635.77	5,245.78
Aug-11	2011	Q3	549,462.31	$ 3,805.59	$ 26,661.34	579,929.24	1.47%	673.09	5,918.87
Sep-11	2011	Q3	579,929.24	$ 3,805.59	$ 26,661.34	610,396.17	1.47%	710.41	6,629.28
Oct-11	2011	Q4	610,396.17	$ 3,570.59	$ 26,661.34	640,628.10	1.47%	747.74	7,377.02
Nov-11	2011	Q4	640,628.10	$ 11,020.75	$ 26,661.34	678,310.19	1.47%	784.77	8,161.79
Dec-11	2011	Q4	678,310.19	$ 9,641.24	$ 26,661.34	714,612.77	1.47%	830.93	8,992.72
Jan-12	2012	Q1	714,612.77	$ 3,876.24	$ 28,603.33	747,092.34	1.47%	875.40	9,868.12
Feb-12	2012	Q1	747,092.34	$ 3,876.24	$ 28,603.33	779,571.91	1.47%	915.19	10,783.30
Mar-12	2012	Q1	779,571.91	$ 4,021.01	$ 28,603.33	812,196.25	1.47%	954.98	11,738.28
Apr-12	2012	Q2	812,196.25	$ 4,021.01	$ 28,603.33	844,820.59	1.47%	994.94	12,733.22
May-12	2012	Q2	844,820.59	$ 5,993.44	$ 28,603.33	879,417.36	1.47%	1,034.91	13,768.13
Jun-12	2012	Q2	879,417.36	$ 21,926.35	$ 28,603.33	929,947.04	1.47%	1,077.29	14,845.41
Jul-12	2012	Q3	929,947.04	$ 20,668.00	$ 28,603.33	979,218.37	1.47%	1,139.19	15,984.60
Aug-12	2012	Q3	979,218.37	$ 20,668.00	$ 28,603.33	1,028,489.70	1.47%	1,199.54	17,184.14
Sep-12	2012	Q3	1,028,489.70	$ 20,668.00	$ 28,603.33	1,077,761.03	1.47%	1,259.90	18,444.04
Oct-12	2012	Q4	1,077,761.03	$ 20,668.00	$ 28,603.33	1,127,032.36	1.47%	1,320.26	19,764.30
Nov-12	2012	Q4	1,127,032.36	$ 20,668.00	$ 28,603.33	1,176,303.69	1.47%	1,380.61	21,144.91
Dec-12	2012	Q4	1,176,303.69	$ 20,668.00	$ 28,603.33	1,225,575.02	1.47%	1,440.97	22,585.88
Jan-13	2013	Q1	1,225,575.02	$ 22,793.50		1,248,368.52	0.00%	-	22,585.88
Feb-13	2013	Q1	1,248,368.52	$ 22,793.50		1,271,162.02	0.00%	-	22,585.88
Mar-13	2013	Q1	1,271,162.02	$ 22,793.50		1,293,955.52	0.00%	-	22,585.88
Apr-13	2013	Q2	1,293,955.52	$ 22,793.50		1,316,749.02	0.00%	-	22,585.88
May-13	2013	Q2	1,316,749.02	$ 22,793.50		1,339,542.52	0.00%	-	22,585.88
Jun-13	2013	Q2	1,339,542.52	$ 22,793.50		1,362,336.02	0.00%	-	22,585.88
Jul-13	2013	Q3	1,362,336.02	$ 22,793.50		1,385,129.52	0.00%	-	22,585.88
Aug-13	2013	Q3	1,385,129.52	$ 22,793.50		1,407,923.02	0.00%	-	22,585.88
Sep-13	2013	Q3	1,407,923.02	$ 22,793.50		1,430,716.52	0.00%	-	22,585.88
Oct-13	2013	Q4	1,430,716.52	$ 22,793.50		1,453,510.02	0.00%	-	22,585.88
Nov-13	2013	Q4	1,453,510.02	$ 22,793.50		1,476,303.52	0.00%	-	22,585.88
Dec-13	2013	Q4	1,476,303.52	$ 22,793.50		1,499,097.02	0.00%	-	22,585.88
				$ 308,757.09	$ 916,817.93	$ 1,225,575.02			

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	$ -	$ -	$ -	$ -	3.98%	$ -
2009	$ -	$ 50,047.78	$ 50,047.78	$ 25,023.89	1.14%	$ 284.65
2010	$ 85,832.00	$ 203,594.25	$ 339,474.03	$ 194,760.91	0.80%	$ 1,553.22
2011	$ 55,203.00	$ 319,936.16	$ 714,613.19	$ 527,043.61	1.47%	$ 7,747.54
2012	$ 94,993.00	$ 343,239.56	$ 1,152,845.75	$ 933,729.47	1.47%	$ 13,725.82
2013	$ 273,522.00	$ 368,099.73	$ 1,794,467.47	$ 1,473,656.61	0.00%	$ -
Cumulative Interest to 2011						$ 9,585.41
Cumulative Interest to 2012						$ 23,311.23
Cumulative Interest to 2013						$ 23,311.23

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)	$ -	$ -	$ -	$ 73,255.37	$ 405,653.74	$ 573,357.55	$ 648,122.77	$ 882,821.52	$ 1,700,389.43
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check **one** of the boxes below)	$ -	$ -	$ -	$ 164.74	$ 1,392.05	$ 7,435.93	$ 13,593.17		$ 22,585.88
X Sheet 8A (Interest calculated on monthly balances)	$ -	$ -	$ -	$ 164.74	$ 1,392.05	$ 7,435.93	$ 13,593.17	$ -	$ 22,585.88
☐ Sheet 8B (Interest calculated on average annual balances)									
SMFA Revenues (from Sheet 8)	$ 53,671.58	$ 83,421.39	$ 84,240.91	$ 83,502.62	$ 218,760.96	$ 319,905.28	$ 139,678.14	$ -	$ 983,180.88
SMFA Interest (from Sheet 8)	$ 722.50	$ 4,424.51	$ 6,848.27	$ 2,798.43	$ 3,169.98	$ 9,892.55	$ 13,934.53	$ -	$ 41,790.77
Net Deferred Revenue Requirement	-$ 54,394.08	-$ 87,845.90	-$ 91,089.18	-$ 12,880.94	$ 185,114.84	$ 250,995.65	$ 508,103.27	$ 882,821.52	$ 698,003.66

Number of Metered Customers (average for 2013 test year) → 26385

- 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			2
Deferred Incremental Revenue Requirement from 2006 to December 31, 2012 plus Interest on OM&A and Amortization		$	1,722,975.31
SMFA Revenues collected from 2006 to 2013 test year (inclusive) Plus Simple Interest on SMFA Revenues		$	1,024,971.65
Net Deferred Revenue Requirement		$	698,003.66
SMDR	January 1, 2013 to December 31, 2014	$	1.10
Check: Forecasted SMDR Revenues		$	696,564.00

Match

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

Incremental Revenue Requirement for 2013	$	882,821.52
SMIRR	$	2.79
Check: Forecasted SMIRR Revenues	$	883,369.80

Match

Smart Meter Model for Electricity Distributors (2013 Filers)

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	88.10%	11.90%			100%
Return on Capital	$ -	$ -	$ -	$ 55,313.69	$ 210,409.32	$ 276,713.78	$ 271,977.61	$ 814,414.41	Allocated per class	$ 717,499.09	$ 96,915.31	$ -	$ -	
Depreciation/Amortization expense and related interest	$ -	$ -	$ -	$ 50,047.78	$ 203,594.25	$ 319,936.16	$ 343,239.56							
	$ -	$ -	$ -	$ 164.74	$ 979.22	$ 6,341.71	$ 10,646.66		Weighted Meter Cost - Capital	88%	12%	0%	0%	100%
	$ -	$ -	$ -	$ 50,212.52	$ 204,573.47	$ 326,277.87	$ 353,886.22	$ 934,950.08	Allocated per class	$ 823,691.02	$ 111,259.06	$ -	$ -	
Operating Expenses and related interest	$ -	$ -	$ -	$ -	$ 85,832.00	$ 55,203.00	$ 94,993.00							
	$ -	$ -	$ -	$ -	$ 412.82	$ 1,094.22	$ 2,946.51		Number of Smart Meters installed by Class	#	#	#	#	
	$ -	$ -	$ -	$ -	$ 86,244.82	$ 56,297.22	$ 97,939.51	$ 240,481.55		23,244	3,141			
									Allocated per class	$ 211,853.45	$ 28,628.11	0	0	
Revenue Requirement before Taxes/PILs								$ 1,989,846.04		$ 1,753,043.56	$ 236,802.48	$ -	$ -	$ -
									Revenue Requirement before PILs	88.10%	11.90%	0.00%	0.00%	100%
Grossed-up Taxes/PILs	$ -	$ -	$ -	-$ 32,106.10	-$ 94,181.83	-$ 78,495.39	-$ 62,087.40	-$ 266,870.72		-$ 235,111.66	-$ 31,759.06	$ -	$ -	
Total Revenue Requirement plus interest on OM&A and depreciation expense								$ 1,722,975.31		$ 1,517,931.90	$ 205,043.41	$ -	$ -	
								$ -	Percentage of costs allocated to each clas	88.10%	11.90%	0.00%	0.00%	
									Percentage of costs for classes with	88.10%	11.90%	0.00%	0.00%	
									SMDR/SMIRR	88.10%	11.90%	0.00%	0.00%	
										%	%	%	%	
									SMFA Revenues directly attributable to class	86.47%	12.22%	1.31%		100%
										86.47%	12.22%	0.00%	0.00%	98.69%
									Residual SMFA Revenues (from other metered classes) attributed evenly	0.66%	0.66%	0.00%	0.00%	
									Total	87.13%	12.88%	1.31%	0.00%	
SMFA Revenues plus interest expense								$ 1,024,971.65		$ 893,006.55	$ 131,965.10	$ 13,427.13	$ -	
Net Deferred Revenue Requirement to be recovered via SMDR								$ 698,003.66		$ 624,925.35	$ 73,078.31	$ -	$ -	
Average number of metered customers by class (2013)									Average number of customers (2013)	23244	3141	0	0	
Number of Years for SMDR recovery								2	years	2	2	2	2	
Smart Meter Disposition Rider ($/month per metered customer in the customer class)										$ 1.12	$ 0.97			
Estimated SMDR Revenues								$ 697,921.20		$ 624,798.72	$ 73,122.48	$ -	$ -	

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	88.10%	11.90%	0.00%	0.00%	100%
Return on Capital	$ 264,721.61		Allocated per class	$ 233,219.73	$ 31,501.87	$ -	$ -	
Depreciation/Amortization expense			Weighted Meter Cost - Capital	88.10%	11.90%	0.00%	0.00%	100%
	$ 368,099.73		Allocated per class	$ 324,295.86	$ 43,803.87	$ -	$ -	
Operating Expenses	$ 273,522.00							
			Number of Smart Meters installed by Class	# 23,244	# 3,141	# -	# -	
	$ 273,522.00		Allocated per class	$ 240,960.60	$ 32,561.40	$ -	$ -	
Revenue Requirement before Taxes/PILs	$ 906,343.33			$ 798,476.19	$ 107,867.14	$ -	$ -	$ -
			Revenue Requirement before PILs	88.10%	11.90%	0.00%	0.00%	100%
Grossed-up Taxes/PILs	-$ 23,521.81			-$ 20,722.40	-$ 2,799.41	$ -	$ -	
Total Revenue Requirement for 2013	$ 882,821.52			$ 777,753.79	$ 105,067.73	$ -	$ -	
			Percentage of costs allocated to each cla	88.10%	11.90%	0.00%	0.00%	
	$ -		Percentage of costs for classes with SMDR/SMIRR	88.10%	11.90%	0.00%	0.00%	
				88.10%	11.90%	0.00%	0.00%	
Average number of metered customers by class (2013)				23,244	3,141	-	-	
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)				$ 2.79	$ 2.79			
Estimated SMIRR Revenues	$ 883,369.80			$ 778,209.12	$ 105,160.68	$ -	$ -	
	$ 548.28							