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September 12, 2014

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
P.O. Box 2319  
2300 Yonge Street, 27<sup>th</sup> floor  
Toronto, ON M4P 1E4

**Re: Application for Final Disposition of Smart Meter Costs**

Dear Ms. Walli,

Essex Powerlines Corporation ("EPLC") respectfully submits an application to the Ontario Energy Board ('the Board') in regard to the Final Disposition of Smart Meter Costs with rate riders proposed for implementation January 1, 2015.

Two hard copies of the application will be sent to the Ontario Energy Board and an electronic copy will be submitted through the Board's e-filing Services.

Sincerely,

Richard Dimmel, CPA, CMA  
VP Regulatory Affairs  
Essex Powerlines Corporation  
519-737-9811 ext 214  
[rdimmel@EPLCpowerlines.ca](mailto:rdimmel@EPLCpowerlines.ca)

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## ONTARIO ENERGY BOARD

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

**AND IN THE MATTER OF** an Application by Essex Powerlines  
Corporation to the Ontario Energy Board for an Order approving just  
And reasonable rates with respect to smart meters  
Effective January 1, 2015

### ESSEX POWERLINES CORPORATION

#### 2014 SMART METER COST RECOVERY APPLICATION

#### **A. Overview**

1. Essex Powerlines Corporation (“EPLC”) is an electricity distributor that is licensed and rate regulated by the Ontario Energy Board (referred to in this Application as the “Board” or the “OEB”) under the *Ontario Energy Board Act, 1998*.
2. EPLC is filing this Application for cost recovery of costs incurred by it as part of the Smart Meter Initiative. The cost recovery is based on actual audited costs incurred to December 31, 2011 and forecasted OM&A costs to December 31, 2011.
3. The total Smart Meter Cost claim is \$3.35 M as shown below in Table 1 below:

**Table 1 – Summary of Smart Meter Costs**

Description	Total Cost	Cost/Smart Meter
Smart Meters & AMI system	\$ 3,183,184	\$ 114.27
Computer hardware and software	\$ 79,739	\$ 2.86
<b>Total Capital Costs</b>	<b>\$ 3,262,923</b>	<b>\$ 116.85</b>
Number of Smart Meters installed	<b>27,922</b>	
Incremental OM&A Costs - 2008 to 2011 Actual	\$ 90,417	\$ 3.24
<b>Total OM&amp;A Costs</b>	<b>\$ 90,417</b>	<b>\$ 3.24</b>
<b>Total Smart Meters Costs</b>	<b>\$ 3,353,340</b>	<b>\$ 120.10</b>

4. The costs incurred are partially offset (to April 2012) by the Smart Meter Funding Adder (including simple interest) revenues collected of \$1,914,188.
5. EPLC is not required to file a Cost of Service Application until April 2015 for rates effective January 1, 2016; thus EPLC is filing this stand-alone Smart Meter Prudence Review Application to specifically request the following rate riders:
  - a. Smart Meter Disposition Rate Rider (SMDR) effective January 1, 2015
    - i. (\$1.15) per Residential customer per month
    - ii. \$10.49 per General Service<50 kW customer per month
  - b. Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR) effective January 1, 2015
    - i. \$1.11 per Residential customer per month
    - ii. \$3.81 per General Service<50 kW customer per month
6. EPLC requests that the SMDR and SMIRR rate riders be in effect for a 12 period respectively to allow for full recovery of its costs.
7. The Board's report, "Sector Smart Meter Audit Review Report", dated March 31, 2010, indicates a sector Average Capital Cost of \$186.76 per meter. Per the same report the Average Total Cost per Meter (including both Capital and OM&A) is \$207.37.
8. EPLC's average capital cost per meter of \$116.72 and its average total cost per meter of \$120.10 (including costs exceeding minimum functionality) demonstrate that EPLC's Smart Meter costs have been prudently incurred. Details of EPLC's average Capital cost, average OM&A cost and average total cost per meter are presented in the Tables 2-4 below:

**Table 2 - Average Capital Cost per Meter**

<b>Capital Costs</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Total</b>
Smart Meter Capital Cost, <b>Including</b> Costs Exceeding Minimum Functionality	\$ 68,265	\$ 1,436,919	\$ 1,391,443	\$ 366,296	\$ -	\$ -	\$ -	\$ 3,262,923
Less: Capital Costs Exceeding Minimum Functionality	\$ 0	\$ 0	\$ 3,791	\$ -	\$ -	\$ -	\$ -	\$ 3,791
Smart Meter Capital Cost, <b>Excluding</b> Costs Exceeding Minimum Functionality	\$ 68,265	\$ 1,436,919	\$ 1,387,652	\$ 366,296	\$ -	\$ -	\$ -	\$ 3,259,132
Number of Smart Meters Installed								27,922
Average Capital Cost, <b>Excluding</b> Costs Exceeding Minimum Functionality								\$ 116.72

**Table 3 - Average OM&A Cost per Meter**

<b>OM&amp;A Costs</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Total</b>
Smart Meter OM&A Cost, <b>Including</b> Costs Exceeding Minimum Functionality	\$ 7,643	\$ 21,912	\$ 31,839	\$ 29,023	\$ -	\$ -	\$ -	\$ 90,417
Less: OM&A Costs Exceeding Minimum Functionality	\$ 4,160	\$ 8,819	\$ 17,462	\$ -	\$ -	\$ -	\$ -	\$ 30,441
Smart Meter OM&A Cost, <b>Excluding</b> Costs Exceeding Minimum Functionality	\$ 3,483	\$ 13,093	\$ 14,377	\$ 29,023	\$ -	\$ -	\$ -	\$ 59,976
Number of Smart Meters Installed								27,922
Average OM&A Cost, <b>Excluding</b> Costs Exceeding Minimum Functionality								\$ 2.15

**Table 4 - Average Total Cost per Meter**

<b>Total Costs</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Total</b>
Smart Meter Total Cost, <b>Including</b> Costs Exceeding Minimum Functionality	\$ 75,908	\$ 1,458,831	\$ 1,423,282	\$ 395,319	\$ -	\$ -	\$ -	\$ 3,353,340
Less: Costs Exceeding Minimum Functionality	\$ 4,160	\$ 8,819	\$ 21,253	\$ -	\$ -	\$ -	\$ -	\$ 34,232
Smart Meter Total Cost, <b>Excluding</b> Costs Exceeding Minimum Functionality	\$ 71,748	\$ 1,450,012	\$ 1,402,029	\$ 395,319	\$ -	\$ -	\$ -	\$ 3,319,108
Number of Smart Meters Installed								27,922
Average Total Cost, <b>Excluding</b> Costs Exceeding Minimum Functionality								\$ 118.87

9. EPLC is not requesting recovery of stranded meter costs at this time. The stranded meter costs will be addressed in EPLC's Cost of Service Application to be filed in April 2015 for rates effective January 1, 2016. As per the Board's Smart Meter Funding and Cost Recovery – Final Dispositional Guideline (G-2001-001), EPLC will maintain its stranded meters in rate base until its next rebasing application.

### **Background Information**

10. In 2008, EPLC became authorized by regulation (O. Reg. 427/06) to conduct Smart meter activities, conditional on its meters being acquired pursuant to and in compliance with the Request for Proposal issued by London Hydro Inc.
11. On April 12, 2006, EPLC received its initial Board Approval for a Smart Meter Funding Adder of \$0.28 per metered customer per month to be effective May 1, 2006 as part of its 2006 Electricity Distribution Rate Application (EB-2005-0363).
12. EPLC then applied to the Board for its Smart Meter Funding Adder to be increased to \$1.00 per metered customer per month as part of its 2009 Electricity Distribution Rate Application (EB-2008-0174) and received approval on March 10, 2009 to increase the adder effective May 1, 2009. The Funding Adder was continued for another year and as part of EPLC's 2010 Cost of Service Rate Application (EB-2009-0143), EPLC received approval to increase the funding adder to \$1.96 per metered customer per month effective May 1, 2010.
13. The Utility-Specific Smart Meter Funding Adder of \$1.96 per metered customer per month was discontinued as of April 30, 2012.
14. EPLC has populated the Board's Smart Meter Calculation Model with audited amounts to December 31, 2011. The full model with detailed calculations is included in the application.

### **B. Smart Meter Project**

## **Project Overview**

### **AMI Selection:**

15. Based on the London Hydro AMI RFP process, EPLC was awarded the Elster Energy Axis system as a preferred vendor by the Fairness Commissioner (refer to the Attestation Letter of the Fairness Commissioner attached as Appendix A).

### **Meter Deployment:**

16. EPLC chose to utilize its own metering staff to deploy smart meters at residential customer class as well as at all GS<50 kW customer class installations. The management of the smart meter implementation was accomplished by a contract employee.

### **Meter Disposal:**

17. EPLC utilized its existing recycling contractor, Zalev Brothers Co. for the scrap metal items. EPLC utilized contracted staff (mainly summer students) to dismantle the conventional meters that were changed out and replaced with smart meters.

### **Operational Data Store (ODS) Functionality:**

18. With the implementation of the AMI system, a need was recognized for an application that supported full integration with the MDM/R and enabled staff to audit, validate, interact with and gain valuable business information from the wealth of meter data that was being collected. The AMI system, while fully capable of collecting meter data and forwarding that raw data to the MDM/R, does not provide all of the functionality necessary to interpret and/or leverage the information it is providing in an educated and meaningful fashion.
19. An RFP was issued for an operational data store (ODS) in February 2009. Following the RFP process, shortlisted vendors delivered software demonstrations, leading to the selection of Utilismart Corporation as the preferred vendor with their ODS application. Utilismart, based in London, Ontario, has been operating the Elster MAS system and had participated in IESO working groups related to smart metering and AMI deployments. They are very well experienced to deliver the required services to EPLC.
20. The primary requirements and features of the operational data store (ODS) are:
  - a) **Dashboard of Field Issues Possibly Requiring Intervention** – Dashboard visibility to the real-time performance of the smart meter system to assist staff in troubleshooting such issues as non-communicating meters, non-communicating tower gateways/collectors, etc.
  - b) **AMI SLA Audit** – Audit and reporting / real-time notification capabilities to monitor AMI performance and therefore ensure the data collection and submission service-level agreements (SLAs) with the centralized MDM/R are consistently met.
  - c) **Read Re-submission** – the ODS provides a data repository to facilitate backfilling reads after a meter installation, front-filling reads after a meter removal, and replacing reads labeled as NVE (Needs Verification or Edit) by the IESO MDM/R system. The ODS provides a mechanism for meter data editing and VEE (Validation, Estimation and Editing) process (in keeping with the MDM/R specifications), such data can be re-submitted to the MDM/R. Features such as “register read validation failure resolution” is invaluable.
  - d) **IESO MDM/R Report Integration / Issue Resolution Automation** – The MDM/R produces a large volume of reports on a daily basis each potentially containing large amounts of information. Utilismart downloads the MDM/R reports, and filter the information they provide in order to provide manageable, meaningful action items that can be prioritized, investigated and resolved.

- e) **Meter Event Monitoring** – Dashboard visibility to report meter events and indicators such as outages, restorations, tampers, voltage changes, etc., many of which will afford the opportunity to improve the safety and reliability of the distribution system.
- f) **Revenue Protection** – EPLC will be able to identify and respond to meter tampers which historically would have resulted in unidentified theft of power.

**Business Process Redesign:**

- 21. EPLC used internal staff to implement the integration to TOU pricing. The EPLC staff, developed a cohesive plan to identify and define all tasks associated with the transition to TOU billing. Initially staff was required to comprehend the design specifications of the MDM/R to prepare the back-end infrastructure for the cutover. Further business processes such as meter changes, final billing, account transfers, meter installations and service terminations were redefined to ensure optimal synchronization with the MDM/R.

**System Changes:**

- 22. EPLC uses the Harris Customer Information System (CIS) which includes facilities for meter reading and customer bill preparation. The deployment of smart meters, which commenced in 2008, necessitated changes to this system but no charges were received for this to be completed. Conversion of customers by billing cycle to TOU billing was initiated in February 2011 and completed by April 2011 which was two months ahead of the mandatory schedule of June 2011.

**Integration with MDM/R:**

- 23. Preparations for MDM/R enrolment proceeded during 2010 with the implementation of the required network security protocol for data transmission. This security standard is used for all data transfers between Elster controlled AMI, the IESO's MDM/R, the ODS and the Harris CIS. Initial connectivity testing with the MDM/R was completed and the process to request and assign Universal Service Delivery Point (USDP) identifiers to each service within our territory was completed. Unit testing of individual MDM/R transaction processes started in late 2010 in preparation for formal MDM/R enrolment testing and certification in early 2011. During January and February 2011, EPLC successfully completed the IESO's mandatory System Integration Testing (SIT) and Qualification Testing (QT), which confirmed its ability to interact with the Provincial MDM/R to provide smart meter reading information and receive bill quantity response data.



### **Transition to Time of Use Pricing:**

24. In mid-2009, the Ontario Government articulated an expectation that 1 million RPP customers would be billed using TOU pricing by the summer of 2010, rising to 3.6 million customers by June 2011. On June 24, 2010, the Ontario Energy Board issued a proposed determination regarding mandated time-of-use pricing for regulated price plan customers (EB-2010-0218), suggesting that distributor-specific TOU dates would be the most appropriate approach as it allows for the deadline to logically follow MDM/R enrolment activities.
25. In a letter dated August 4, 2010, the OEB provided direction to all LDCs on mandated dates in which each distributor must bill RPP customers that have eligible TOU meters using TOU pricing.
26. EPLC's mandated date for TOU billing was June 1, 2011 for all residential and GS<50kW customers. EPLC confirms that eligible residential customers were converted to TOU billing ahead of the mandated date.

### **Customer Education:**

27. In the early stages of conversion to TOU, EPLC developed a customer communication plan to create consistent well-defined messages to our customers around smart meters and TOU electricity pricing. EPLC developed communication milestones that mirrored the appropriate stage of the TOU initiative.
28. The month before the smart meters were to be installed, an insert entitled "Your Smart Meter is Coming Soon" was mailed out with the customer's bill and posted on the EPLC website (Appendix B). Prior to the start of the installation of the smart meters, a letter was also sent to each Municipality serviced by EPLC (Appendix C). This ensured that the Town administration would be aware of the smart meters and could redirect any customer calls to EPLC. At each home, the crew would knock on the door to notify the customer in person and allow them to shut down any equipment prior to the meter change. Just before the period of smart meter installations a brochure was mailed out to each customer with their bill containing a book on "Getting Smart about Smart Meters" (Appendix D). Also an information notice "Introducing Smart Meters" (Appendix E) was left by the installers informing the customer about the meter installed and what the next steps were. If the customer was not home, the notice was left in a mailbox or the door of the residence. Prior to the TOU conversion, customers received a billing insert "Introducing Time-of-Use Rates" (Appendix F). Information was placed on our website

explaining Time-of-Use pricing along with frequently asked questions and information provided as handouts at each municipal office that EPLC services.

**Web Presentment:**

29. An enhancement to the EPLC web site to add the facility for customers to view their smart meter energy consumption was launched during June 2011. The program is called Residential Energy Manager and it can be accessed by any customers with a smart meter in the Residential or GS<50 kW class. The customer has the ability to see the hourly pricing, and how they have used electricity during the TOU periods under the various tabs which include a Consumption Report tab, a Cost Report tab, and an Energy Savings tab. The Home tab provides an overview of when the customer used electricity for the prior day and the cost. It also displays when the next time of use period begins and the applicable price. The Consumption Report tab shows when and how many kWh's were used and the consumer can select the time period they want to see. The Cost Report tab shows the overall cost for the customer selected period in a pie chart and a cost chart. The Energy Savings tab includes a load shifting tool that the consumer can use to determine how to shift some load to an off peak or mid peak period and thereby save some cost. See Appendix G
30. Also available on the EPLC website is a Quick Link to the IESO's "10 Smart Lane" site which displays the current TOU pricing and other customer education.

**Capital & Operating Costs:**

31. EPLC's smart meter application is requesting recovery for the 27,922 smart meters installed in its service territory during the smart meter initiatives. All historical costs reported in the smart meter model have been audited. Essex notes that there is a small dollar difference between this application and the numbers reported to the Board under RRR. The differences arise from:
  - a. Reclassification of \$30,441 from Capital beyond minimum functionality to OM&A beyond functionality 2.6.3.
  - b. Minor overall difference of \$255.
32. Table 1 below illustrates the various cost components of EPLC's smart meter program:

Smart Meter Cost Components		
Capital		\$
1.1	Advanced Metering Communication Device (AMCD)	2,995,084
1.2	Advanced Metering Regional Collector (AMRC) (includes LAN	119,482
1.3	Advanced Metering control Computer (AMCC)	-
1.4	Wide Area Network (WAN)	25,308
1.5	Other AMI Capital Costs related to Minimum Functionality	119,258
1.6	Capital Costs Beyond Minimum Functionality	3,791
	<b>Total Capital Costs</b>	<b>3,262,923</b>
OM&A		
2.1	Incremental AMCD	24,192
2.2	Incremental AMRC	5,193
2.3	Incremental AMCC	-
2.4	Incremental AMRC	-
2.5	Other AMI OM&A Costs related to Minimum Functionality	30,591
2.6	OM&A Costs Beyond Minimum Functionality	30,441
	<b>Total OM&amp;A Costs</b>	<b>90,417</b>

33. Capital and OM&A costs relating to new (growth) smart meter installs post – 2011 have not been included for recovery in this application. EPLC will include any costs beyond the period of this application as part of its next Cost of Service application.

#### **Incremental Cost Savings**

34. EPLC's Operating Costs have increased due to the installation of Smart Meters, but certain cost savings have resulted due to the implementation of smart meters, namely the manual meter reading costs. Reduced costs resulting from the smart meter program have not been reflected in the smart meter model as EPLC will consider them in its next cost of service rate application.

#### **Beyond Minimum Functionality**

35. EPLC incurred the capital cost of \$3,791 for MDMR integration software. Additional OM&A costs included meter set up and consultation costs for integration with the MDMR which totaled \$30,441.

#### **Customer Owned Equipment**

36. The Board directed, in the Combined Smart Meter Proceeding (EB-2004-0063), that the actual material and part costs to repair or replace any customer owned equipment shall be expensed

and also tracked separately in a different sub-account of the Smart Meter OM&A Variance Account 1556 and the labour and associated costs to Account 1555. EPLC presents its OM&A and capital costs to customer owned equipment below in Table 2. The breakdown based on class was determined by the same method and resulting percentage as shown in item 36 below.

		Expense -1556				Capital - 1555	
	Total Costs	Residential	GS<50		Total Costs	Residential	GS<50
2007		-	-		1,048	979	64
2008		-	-			-	-
2009	6,395	5,976	419		17,098	15,978	1,120
2010	7,195	6,723	471		11,335	10,593	742
2011	-	-	-			-	-
2012	-	-	-			-	-
Total	13,590	12,700	890		28,433	26,571	1,862

**Cost Allocation and Smart Meter Funding Adder allocation**

37. In the Board's Decision on PowerStream Inc. (EB-2011-0128), (page 10) it stated "The Board finds that a cost allocation approach based on class specific revenue requirement calculations offset by class specific smart meter funding to be inconsistent with previous Board decisions, and that there has been no clear requirement to track costs by class. The Board notes that historical funding collected from customer classes other than Residential and GS<50 is not material (less than 1% of overall revenues collected). Essex Powerlines did not track the costs by customer class specifically but based on estimated material and labour costs we were able to determine a more reasonable cost allocation split as shown in the table below.

<b>Smart Meter Cost Allocation Estimate</b>					
	# customers	Total Estimated Mat'l Cost	Total Estimated Labour \$ Cost	Total cost	% split
Residential	26,031	2,420,883	300,658	2,721,541	80%
GS<50 kW	1,891	660,675	40,203	700,878	20%
Total	27,922	3,081,558	340,861	3,422,419	100%

38. The smart meter funding adder revenue was collected from other classes other than Residential and GS<50 kW but the amount is not significant based on the overall revenues collected. The smart meter funding allocation percentage was determined as follows:

<b>Smart Meter Funding Revenue Re-Allocation</b>			
	Residential	GS<50 kW	Total
2006	41,565	2,959	44,524
2007	76,677	5,488	82,164
2008	85,323	6,226	91,549
2009	247,034	15,036	262,070
2010	511,287	34,555	545,842
2011	611,067	38,854	649,920
2012	197,919	20,661	218,579
	1,770,870	123,778	1,894,648
	93.5%	6.5%	100%

**Smart Meter Disposition Rate Rider (SMDR)**

39. Capital costs to December 31, 2011 have been included in the smart meter model. The number of customers used in the model is the January 31, 2012 number reported to the Board.
40. The WACC and the tax rates used in the smart meter model match those approved by the Board for EPLC. The tax rates used are based on the best information available at the time of this filing.
41. EPLC is requesting that the SMDR and SMIRR rate riders be effective for January 1, 2015 based on sufficient time for the Board to approve the filing and sufficient time to make the necessary changes to our CIS. January 1, will also align with our COS filing for rates effective January 1, 2016.
42. The value of the SMDR is based on the net amount resulting from:
  - a. Deferred & forecasted Smart Meter Incremental Revenue Requirement from 2008 to December 31, 2014.
  - b. PLUS interest on Deferred and forecasted OM&A and Amortization Expenses from 2008 to December 31, 2013.
  - c. LESS Smart Meter Funding Revenues collected (including carrying charges) and forecast from May 1, 2006 to December 31, 2012 with minor billing adjustments in March and April 2013.
43. EPLC requests Board approval for Smart Meter Disposition Rider as follows:
  - a. Residential \$1.15 credit per customer per month
  - b. GS<50 kW \$10.49 charge per customer per month

Detailed calculations can be found in the smart meter model tab 10a.

**Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)**

44. EPLC requests Board approval for class-specific Smart Meter Incremental Revenue Requirement Rate Rider, effective for one year commencing January 1, 2105, for the following amounts:

- a.* Residential \$1.11 per customer per month
- b.* GS<50 kW \$3.81 per customer per month

Detailed calculations can be found in the smart meter model in tab 10b.

**Bill Impacts**

EPLC is proposing to implement both the SMDR and SMIRR at the same time as there is an offset of one adder against the other and it was felt that this would minimize confusion and the impact of the new riders. It is proposed to have this impact effective January 1, 2015.

[illegible]

[illegible]





## Smart Meter Model for Electricity Distributors (2014 Filers)

Version 4.00

Utility Name	Essex Powerlines Corporation
Assigned EB Number	
Name and Title	Operations & Regulatory Accounting Analyst
Phone Number	519-737-9811 Extension 112
Email Address	msoucic@essexpower.ca
Date	12-Sep-14
Last COS Re-based Year	2010

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

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

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



## Smart Meter Model for Electricity Distributors (2014 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 2014, distributors that have completed their deployments by the end of 2013 are not expected to enter any capital costs. However, for OM&A, regardless of whether a distributor has deployments in 2014, distributors should enter the forecasted OM&A for 2014 for all smart meters in service.

### Smart Meter Capital Cost and Operational Expense Data

#### Smart Meter Installation Plan

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

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Audited Actual	2013 Audited Actual	2014 Forecast	Total
Residential				15,027	10,842	162				26031
General Service < 50 kW				506	620	700				1826
Actual/Planned number of Smart Meters installed (Residential and GS < 50 kW only)	0	0	0	15533	11462	862	0	0	0	27857
Percentage of Residential and GS < 50 kW Smart Meter Installations Completed	0.00%	0.00%	0.00%	55.76%	96.91%	100.00%	0.00%	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	15533	11462	862	0	0	0	27857

### 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	Audited Actual	Audited Actual	Forecast	
1.1.1 Smart Meters (may include new meters and modules, etc.)	Smart Meter			38,675	1,317,702	1,148,728	328,227				\$ 2,833,332
1.1.2 Installation Costs (may include socket kits, labour, vehicle, benefits, etc.)	Smart Meter			4,009	15,995	31,242	34,558				\$ 85,804
1.1.3a Workforce Automation Hardware (may include fieldwork handhelds, barcode hardware, etc.)	Computer Hardware			8,483		20,792					\$ 29,275
1.1.3b Workforce Automation Software (may include fieldwork handhelds, barcode hardware, etc.)	Computer Software				35,340	7,822	3,511				\$ 46,673
Total Advanced Metering Communications Devices (AMCD)		\$ -	\$ -	\$ 51,167	\$ 1,369,037	\$ 1,208,584	\$ 366,296	\$ -	\$ -	\$ -	\$ 2,995,084

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

	Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
1.2.1 Collectors	Smart Meter					107,023					\$ 107,023
1.2.2 Repeaters (may include radio licence, etc.)											\$ -
1.2.3 Installation (may include meter seals and rings, collector computer hardware, etc.)	Smart Meter					12,459					\$ 12,459
Total Advanced Metering Regional Collector (AMRC) (includes LAN)		\$ -	\$ -	\$ -	\$ -	\$ 119,482	\$ -	\$ -	\$ -	\$ -	\$ 119,482

### 1.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

1.3.1 Computer Hardware

1.3.2 Computer Software

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

#### Total Advanced Metering Control Computer (AMCC)

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

### 1.4 WIDE AREA NETWORK (WAN)

1.4.1 Activation Fees

#### Total Wide Area Network (WAN)

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
Smart Meter					25,308					\$ 25,308
	\$ -	\$ -	\$ -	\$ -	25,308	\$ -	\$ -	\$ -	\$ -	25,308

### 1.5 OTHER AMI CAPITAL COSTS RELATED TO MINIMUM FUNCTIONALITY

1.5.1 Customer Equipment (including repair of damaged equipment)

1.5.2 AMI Interface to CIS

1.5.3 Professional Fees

1.5.4 Integration

1.5.5 Program Management

1.5.6 Other AMI Capital

#### Total Other AMI Capital Costs Related to Minimum Functionality

#### Total Capital Costs Related to Minimum Functionality

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
Smart Meter			17,098	11,335						\$ 28,433
										\$ -
Smart Meter				6,210						\$ 6,210
										\$ -
Smart Meter				50,337	34,278					\$ 84,615
										\$ -
	\$ -	\$ -	\$ 17,098	\$ 67,882	\$ 34,278	\$ -	\$ -	\$ -	\$ -	\$ 119,258
	\$ -	\$ -	\$ 68,265	\$ 1,436,919	\$ 1,387,652	\$ 366,296	\$ -	\$ -	\$ -	\$ 3,259,132

### 1.6 CAPITAL COSTS BEYOND MINIMUM FUNCTIONALITY

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

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

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

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

#### Total Capital Costs Beyond Minimum Functionality

#### Total Smart Meter Capital Costs

Asset Type	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast	
Computer Software										\$ -
Applications Software										\$ -
Computer Software			0	0	3,791					\$ 3,791
	\$ -	\$ -	\$ -	\$ -	\$ 3,791	\$ -	\$ -	\$ -	\$ -	\$ 3,791
	\$ -	\$ -	\$ 68,265	\$ 1,436,919	\$ 1,391,443	\$ 366,296	\$ -	\$ -	\$ -	\$ 3,262,923

## 2.1 ADVANCED METERING COMMUNICATION DEVICE (AMCD)

2.1.1 Maintenance (may include meter reverification costs, etc.)

2.1.2 Other (please specify)

### Total Incremental AMCD OM&A Costs

## 2.2 ADVANCED METERING REGIONAL COLLECTOR (AMRC) (includes LAN)

### 2.2.1 Maintenance

2.2.2 Other (please specify)

**Total Incremental AMRC OM&A Costs**

### 2.3 ADVANCED METERING CONTROL COMPUTER (AMCC)

### 2.3.1 Hardware Maintenance *(may include server support, etc.)*

### 2.3.2 Software Maintenance *(may include maintenance support, etc.)*

2.3.2 Other (please specify)

**Total Incremental AMCC OM&A Costs**

## 2.4 WIDE AREA NETWORK (WAN)

### 2.4.1 WAN Maintenance

2.4.2 Other (please specify)

### Total Incremental AMRC OM&A Costs

## 2.5 OTHER AMI OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY

### 2.5.1 Business Process Redesign

### 2.5.2 Customer Communication (may include project communication, etc.)

### 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

#### Total Other AMI OM&A Costs Related to Minimum Functionality

**TOTAL OM&A COSTS RELATED TO MINIMUM FUNCTIONALITY**

## 2.6 OM&A COSTS RELATED TO BEYOND MINIMUM FUNCTIONALITY

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

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

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

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

### Total OM&A Costs Beyond Minimum Functionality

### Total Smart Meter OM&A Costs

Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast		
		106	2,500	2,248	19,338				\$	24,192
									\$	-
\$ -	\$ -	\$ 106	\$ 2,500	\$ 2,248	\$ 19,338	\$ -	\$ -	\$ -	\$	24,192
		0	0	577	0				\$	577
		2,198	2,418						\$	4,616
\$ -	\$ -	\$ 2,198	\$ 2,418	\$ 577	\$ -	\$ -	\$ -	\$ -	\$	5,193
									\$	-
									\$	-
									\$	-
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-
									\$	-
									\$	-
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-
									\$	-
			1,611		8,525				\$	10,136
									\$	-
		1,179	169	4,357	1,160				\$	6,865
									\$	
			6,395	7,195					\$	13,590
\$ -	\$ -	\$ 1,179	\$ 8,175	\$ 11,552	\$ 9,685	\$ -	\$ -	\$ -	\$	30,591
\$ -	\$ -	\$ 3,483	\$ 13,093	\$ 14,377	\$ 29,023	\$ -	\$ -	\$ -	\$	59,976
Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Audited Actual	Forecast		
									\$	-
									\$	-
		4,160	8,819	17,462					\$	30,441
\$ -	\$ -	\$ 4,160	\$ 8,819	\$ 17,462	\$ -	\$ -	\$ -	\$ -	\$	30,441
\$ -	\$ -	\$ 7,643	\$ 21,912	\$ 31,839	\$ 29,023	\$ -	\$ -	\$ -	\$	90,417

3 Aggregate Smart Meter Costs by Category

3.1	Capital																				
3.1.1	Smart Meter	\$	-	\$	-	\$	59,782	\$	1,401,579	\$	1,359,038	\$	362,785	\$	-	\$	-	\$	-	\$	3,183,184
3.1.2	Computer Hardware	\$	-	\$	-	\$	8,483	\$	-	\$	20,792	\$	-	\$	-	\$	-	\$	-	\$	29,275
3.1.3	Computer Software	\$	-	\$	-	\$	-	\$	35,340	\$	11,613	\$	3,511	\$	-	\$	-	\$	-	\$	50,464
3.1.4	Tools & Equipment	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
3.1.5	Other Equipment	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
3.1.6	Applications Software	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
3.1.7	Total Capital Costs	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>68,265</u>	<u>\$</u>	<u>1,436,919</u>	<u>\$</u>	<u>1,391,443</u>	<u>\$</u>	<u>366,296</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>3,262,923</u>
3.2	OM&A Costs																				
3.2.1	Total OM&A Costs	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>7,643</u>	<u>\$</u>	<u>21,912</u>	<u>\$</u>	<u>31,839</u>	<u>\$</u>	<u>29,023</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>90,417</u>



## Smart Meter Model for Electricity Distributors (2014 Filers)

	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Cost of Capital</b>									
<b>Capital Structure<sup>1</sup></b>									
Deemed Short-term Debt Capitalization					4.0%	4.0%	4.0%	4.0%	4.0%
Deemed Long-term Debt Capitalization	50.0%	50.0%	53.3%	56.7%	56.0%	56.0%	56.0%	56.0%	56.0%
Deemed Equity Capitalization	50.0%	50.0%	46.7%	43.3%	40.0%	40.0%	40.0%	40.0%	40.0%
Preferred Shares									
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Cost of Capital Parameters</b>									
Deemed Short-term Debt Rate			0.00%	0.00%	2.07%	2.07%	2.07%	2.07%	2.07%
Long-term Debt Rate (actual/embedded/deemed) <sup>2</sup>	6.45%	6.45%	6.45%	6.45%	5.40%	5.40%	5.40%	5.40%	5.40%
Target Return on Equity (ROE)	9.0%	9.00%	9.00%	9.00%	9.85%	9.85%	9.85%	9.85%	9.85%
Return on Preferred Shares									
<b>WACC</b>	7.73%	7.73%	7.64%	7.55%	7.05%	7.05%	7.05%	7.05%	7.05%
<b>Working Capital Allowance</b>									
Working Capital Allowance Rate			15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
(% of the sum of Cost of Power + controllable expenses)									
<b>Taxes/PILs</b>									
Aggregate Corporate Income Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%	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%	0.00%

**Depreciation Rates***(expressed as expected useful life in years)*

Smart Meters - years			15	15	15	15	15	15	15
- rate (%)	0.00%	0.00%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%	6.67%
Computer Hardware - years			5	5	5	5	5	5	5
- rate (%)	0.00%	0.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Computer Software - years			5	5	5	5	5	5	5
- rate (%)	0.00%	0.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Tools & Equipment - years			10	10	10	10	10	10	10
- rate (%)	0.00%	0.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Other Equipment - years			10	10	10	10	10	10	10
- rate (%)	0.00%	0.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%

**CCA Rates**

Smart Meters - CCA Class			47	47	47	47	47	47	47
Smart Meters - CCA Rate			8%	8%	8%	8%	8%	8%	8%
Computer Equipment - CCA Class			50	50	50	50	50	50	50
Computer Equipment - CCA Rate			55%	55%	55%	55%	55%	55%	55%
General Equipment - CCA Class			8	8	8	8	8	8	8
General Equipment - CCA Rate			20%	20%	20%	20%	20%	20%	20%
Applications Software - CCA Class			12	12	12	12	12	12	12
Applications Software - CCA Rate			100%	100%	100%	100%	100%	100%	100%

**Assumptions**<sup>1</sup> Planned smart meter installations occur evenly throughout the year.<sup>2</sup> Fiscal calendar year (January 1 to December 31) used.<sup>3</sup> Amortization is done on a straight line basis and has the "half-year" rule applied.



## Smart Meter Model for Electricity Distributors (2014 Filers)

	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Net Fixed Assets - Smart Meters</b>									
<b>Gross Book Value</b>									
Opening Balance		\$ -	\$ -	\$ 59,782	\$ 1,461,361	\$ 2,820,399	\$ 3,183,184	\$ 3,183,184	\$ 3,183,184
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ 59,782	\$ 1,401,579	\$ 1,359,038	\$ 362,785	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)									
Closing Balance	\$ -	\$ -	\$ 59,782	\$ 1,461,361	\$ 2,820,399	\$ 3,183,184	\$ 3,183,184	\$ 3,183,184	\$ 3,183,184
<b>Accumulated Depreciation</b>									
Opening Balance		\$ -	\$ -	-\$ 1,993	-\$ 52,698	-\$ 195,423	-\$ 395,542	-\$ 607,755	-\$ 819,967
Amortization expense during year	\$ -	\$ -	-\$ 1,993	-\$ 50,705	-\$ 142,725	-\$ 200,119	-\$ 212,212	-\$ 212,212	-\$ 212,212
Retirements/Removals (if applicable)									
Closing Balance	\$ -	\$ -	-\$ 1,993	-\$ 52,698	-\$ 195,423	-\$ 395,542	-\$ 607,755	-\$ 819,967	-\$ 1,032,179
<b>Net Book Value</b>									
Opening Balance	\$ -	\$ -	\$ -	\$ 57,789	\$ 1,408,664	\$ 2,624,976	\$ 2,787,642	\$ 2,575,429	\$ 2,363,217
Closing Balance	\$ -	\$ -	\$ 57,789	\$ 1,408,664	\$ 2,624,976	\$ 2,787,642	\$ 2,575,429	\$ 2,363,217	\$ 2,151,005
Average Net Book Value	\$ -	\$ -	\$ 28,895	\$ 733,226	\$ 2,016,820	\$ 2,706,309	\$ 2,681,536	\$ 2,469,323	\$ 2,257,111
<b>Net Fixed Assets - Computer Hardware</b>									
<b>Gross Book Value</b>									
Opening Balance		\$ -	\$ -	\$ 8,483	\$ 8,483	\$ 29,275	\$ 29,275	\$ 29,275	\$ 29,275
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ 8,483	\$ -	\$ 20,792	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)									
Closing Balance	\$ -	\$ -	\$ 8,483	\$ 8,483	\$ 29,275	\$ 29,275	\$ 29,275	\$ 29,275	\$ 29,275
<b>Accumulated Depreciation</b>									
Opening Balance	\$ -	\$ -	\$ -	-\$ 848	-\$ 2,545	-\$ 6,321	-\$ 12,176	-\$ 18,031	-\$ 23,886
Amortization expense during year	\$ -	\$ -	-\$ 848	-\$ 1,697	-\$ 3,776	-\$ 5,855	-\$ 5,855	-\$ 5,855	-\$ 5,389
Retirements/Removals (if applicable)									
Closing Balance	\$ -	\$ -	-\$ 848	-\$ 2,545	-\$ 6,321	-\$ 12,176	-\$ 18,031	-\$ 23,886	-\$ 29,275
<b>Net Book Value</b>									
Opening Balance	\$ -	\$ -	\$ -	\$ 7,635	\$ 5,938	\$ 22,954	\$ 17,099	\$ 11,244	\$ 5,389
Closing Balance	\$ -	\$ -	\$ 7,635	\$ 5,938	\$ 22,954	\$ 17,099	\$ 11,244	\$ 5,389	\$ -
Average Net Book Value	\$ -	\$ -	\$ 3,817	\$ 6,786	\$ 14,446	\$ 20,027	\$ 14,172	\$ 8,317	\$ 2,695



**Net Fixed Assets - Computer Software (including Applications Software)**

Gross Book Value										
Opening Balance		\$ -	\$ -	\$ -	\$ 35,340	\$ 46,953	\$ 50,464	\$ 50,464	\$ 50,464	\$ 50,464
Capital Additions during year (from Smart Meter Costs)	\$ -	\$ -	\$ -	\$ 35,340	\$ 11,613	\$ 3,511	\$ -	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)										
Closing Balance	\$ -	\$ -	\$ -	\$ 35,340	\$ 46,953	\$ 50,464	\$ 50,464	\$ 50,464	\$ 50,464	\$ 50,464
Accumulated Depreciation										
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 3,534	\$ 11,763	\$ 21,505	\$ 31,598	\$ 41,690	\$ 41,690
Amortization expense during year	\$ -	\$ -	\$ -	\$ 3,534	\$ 8,229	\$ 9,742	\$ 10,093	\$ 10,093	\$ 10,093	\$ 8,773
Retirements/Removals (if applicable)										
Closing Balance	\$ -	\$ -	\$ -	\$ 3,534	\$ 11,763	\$ 21,505	\$ 31,598	\$ 41,690	\$ 50,464	\$ 50,464
Net Book Value										
Opening Balance	\$ -	\$ -	\$ -	\$ -	\$ 31,806	\$ 35,189	\$ 28,959	\$ 18,866	\$ 8,773	\$ 8,773
Closing Balance	\$ -	\$ -	\$ -	\$ 31,806	\$ 35,189	\$ 28,959	\$ 18,866	\$ 8,773	\$ 8,773	\$ 8,773
Average Net Book Value	\$ -	\$ -	\$ -	\$ 15,903	\$ 33,498	\$ 32,074	\$ 23,912	\$ 13,820	\$ 4,387	\$ 4,387

### Net Fixed Assets - Tools and Equipment

[illegible]

### Net Fixed Assets - Other Equipment

[illegible]

	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Average Net Fixed Asset Values (from Sheet 4)</b>									
Smart Meters	\$ -	\$ -	\$ 28,895	\$ 733,226	\$ 2,016,820	\$ 2,706,309	\$ 2,681,536	\$ 2,469,323	\$ 2,257,111
Computer Hardware	\$ -	\$ -	\$ 3,817	\$ 6,786	\$ 14,446	\$ 20,027	\$ 14,172	\$ 8,317	\$ 2,695
Computer Software	\$ -	\$ -	\$ -	\$ 15,903	\$ 33,498	\$ 32,074	\$ 23,912	\$ 13,820	\$ 4,387
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Net Fixed Assets</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 32,712</b>	<b>\$ 755,916</b>	<b>\$ 2,064,764</b>	<b>\$ 2,758,410</b>	<b>\$ 2,719,620</b>	<b>\$ 2,491,460</b>	<b>\$ 2,264,192</b>
<b>Working Capital</b>									
Operating Expenses (from Sheet 2)	\$ -	\$ -	\$ 7,643	\$ 21,912	\$ 31,839	\$ 29,023	\$ -	\$ -	\$ -
Working Capital Factor (from Sheet 3)	0%	0%	15%	15%	15%	15%	15%	15%	15%
Working Capital Allowance	\$ -	\$ -	\$ 1,146	\$ 3,287	\$ 4,776	\$ 4,353	\$ -	\$ -	\$ -
<b>Incremental Smart Meter Rate Base</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 33,858</b>	<b>\$ 759,203</b>	<b>\$ 2,069,539</b>	<b>\$ 2,762,763</b>	<b>\$ 2,719,620</b>	<b>\$ 2,491,460</b>	<b>\$ 2,264,192</b>
<b>Return on Rate Base</b>									
<b>Capital Structure</b>									
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 82,782	\$ 110,511	\$ 108,785	\$ 99,658	\$ 90,568
Deemed Long Term Debt	\$ -	\$ -	\$ 18,047	\$ 430,468	\$ 1,158,942	\$ 1,547,147	\$ 1,522,987	\$ 1,395,217	\$ 1,267,948
Equity	\$ -	\$ -	\$ 15,812	\$ 328,735	\$ 827,816	\$ 1,105,105	\$ 1,087,848	\$ 996,584	\$ 905,677
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Capitalization</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 33,858</b>	<b>\$ 759,203</b>	<b>\$ 2,069,539</b>	<b>\$ 2,762,763</b>	<b>\$ 2,719,620</b>	<b>\$ 2,491,460</b>	<b>\$ 2,264,192</b>
<b>Return on</b>									
Deemed Short Term Debt	\$ -	\$ -	\$ -	\$ -	\$ 1,714	\$ 2,288	\$ 2,252	\$ 2,063	\$ 1,875
Deemed Long Term Debt	\$ -	\$ -	\$ 1,164	\$ 27,765	\$ 62,583	\$ 83,546	\$ 82,241	\$ 75,342	\$ 68,469
Equity	\$ -	\$ -	\$ 1,423	\$ 29,586	\$ 81,540	\$ 108,853	\$ 107,153	\$ 98,164	\$ 89,209
Preferred Shares	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Return on Capital</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,587</b>	<b>\$ 57,351</b>	<b>\$ 145,836</b>	<b>\$ 194,686</b>	<b>\$ 191,646</b>	<b>\$ 175,568</b>	<b>\$ 159,553</b>
<b>Operating Expenses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 7,643</b>	<b>\$ 21,912</b>	<b>\$ 31,839</b>	<b>\$ 29,023</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Amortization Expenses (from Sheet 4)</b>									
Smart Meters	\$ -	\$ -	\$ 1,993	\$ 50,705	\$ 142,725	\$ 200,119	\$ 212,212	\$ 212,212	\$ 212,212
Computer Hardware	\$ -	\$ -	\$ 848	\$ 1,697	\$ 3,776	\$ 5,855	\$ 5,855	\$ 5,855	\$ 5,389
Computer Software	\$ -	\$ -	\$ -	\$ 3,534	\$ 8,229	\$ 9,742	\$ 10,093	\$ 10,093	\$ 8,773
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Amortization Expense in Year</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,841</b>	<b>\$ 55,935</b>	<b>\$ 154,730</b>	<b>\$ 215,716</b>	<b>\$ 228,160</b>	<b>\$ 228,160</b>	<b>\$ 226,375</b>
<b>Incremental Revenue Requirement before Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 13,071</b>	<b>\$ 135,199</b>	<b>\$ 332,405</b>	<b>\$ 439,425</b>	<b>\$ 419,806</b>	<b>\$ 403,728</b>	<b>\$ 385,928</b>
<b>Calculation of Taxable Income</b>									
Incremental Operating Expenses	\$ -	\$ -	\$ 7,643	\$ 21,912	\$ 31,839	\$ 29,023	\$ -	\$ -	\$ -
Amortization Expense	\$ -	\$ -	\$ 2,841	\$ 55,935	\$ 154,730	\$ 215,716	\$ 228,160	\$ 228,160	\$ 226,375
Interest Expense	\$ -	\$ -	\$ 1,164	\$ 27,765	\$ 64,296	\$ 85,834	\$ 84,493	\$ 77,405	\$ 70,344
<b>Net Income for Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,423</b>	<b>\$ 29,586</b>	<b>\$ 81,540</b>	<b>\$ 108,853</b>	<b>\$ 107,153</b>	<b>\$ 98,164</b>	<b>\$ 89,209</b>
<b>Grossed-up Taxes/PILs (from Sheet 7)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 84.53</b>	<b>\$ 9,049.60</b>	<b>\$ 22,462.57</b>	<b>\$ 32,228.33</b>	<b>\$ 37,859.71</b>	<b>\$ 43,471.10</b>	<b>\$ 46,324.93</b>
<b>Revenue Requirement, including Grossed-up Taxes/PILs</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 12,987</b>	<b>\$ 144,248</b>	<b>\$ 354,868</b>	<b>\$ 471,654</b>	<b>\$ 457,666</b>	<b>\$ 447,199</b>	<b>\$ 432,253</b>



## Smart Meter Model for Electricity Distributors (2014 Filers)

### 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 Audited Actual	2013 Audited Actual	2014 Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ 57,390.72	\$ 1,398,315.30	\$ 2,591,126.56	\$ 2,732,110.03	\$ 2,513,541.23	\$ 2,312,457.93
Capital Additions	\$ -	\$ -	\$ 59,782.00	\$ 1,401,579.00	\$ 1,359,038.00	\$ 362,785.00	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)									
UCC Before Half Year Rule	\$ -	\$ -	\$ 59,782.00	\$ 1,458,969.72	\$ 2,757,353.30	\$ 2,953,911.56	\$ 2,732,110.03	\$ 2,513,541.23	\$ 2,312,457.93
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ 29,891.00	\$ 700,789.50	\$ 679,519.00	\$ 181,392.50	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ 29,891.00	\$ 758,180.22	\$ 2,077,834.30	\$ 2,772,519.06	\$ 2,732,110.03	\$ 2,513,541.23	\$ 2,312,457.93
CCA Rate Class	0	0	47	47	47	47	47	47	47
CCA Rate	0%	0%	8%	8%	8%	8%	8%	8%	8%
CCA	\$ -	\$ -	\$ 2,391.28	\$ 60,654.42	\$ 166,226.74	\$ 221,801.52	\$ 218,568.80	\$ 201,083.30	\$ 184,996.63
Closing UCC	\$ -	\$ -	\$ 57,390.72	\$ 1,398,315.30	\$ 2,591,126.56	\$ 2,732,110.03	\$ 2,513,541.23	\$ 2,312,457.93	\$ 2,127,461.30

#### UCC - Computer Equipment

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Audited Actual	2013 Audited Actual	2014 Forecast
Opening UCC	\$ -	\$ -	\$ -	\$ 6,150.18	\$ 28,389.08	\$ 36,268.35	\$ 18,866.23	\$ 8,489.80	\$ 3,820.41
Capital Additions Computer Hardware	\$ -	\$ -	\$ 8,483.00	\$ -	\$ 20,792.00	\$ -	\$ -	\$ -	\$ -
Capital Additions Computer Software	\$ -	\$ -	\$ -	\$ 35,340.00	\$ 11,612.50	\$ 3,511.00	\$ -	\$ -	\$ -
Retirements/Removals (if applicable)									
UCC Before Half Year Rule	\$ -	\$ -	\$ 8,483.00	\$ 41,490.18	\$ 60,793.58	\$ 39,779.35	\$ 18,866.23	\$ 8,489.80	\$ 3,820.41
Half Year Rule (1/2 Additions - Disposals)	\$ -	\$ -	\$ 4,241.50	\$ 17,670.00	\$ 16,202.25	\$ 1,755.50	\$ -	\$ -	\$ -
Reduced UCC	\$ -	\$ -	\$ 4,241.50	\$ 23,820.18	\$ 44,591.33	\$ 38,023.85	\$ 18,866.23	\$ 8,489.80	\$ 3,820.41
CCA Rate Class	0	0	50	50	50	50	50	50	50
CCA Rate	0%	0%	55%	55%	55%	55%	55%	55%	55%
CCA	\$ -	\$ -	\$ 2,332.83	\$ 13,101.10	\$ 24,525.23	\$ 20,913.12	\$ 10,376.43	\$ 4,669.39	\$ 2,101.23
Closing UCC	\$ -	\$ -	\$ 6,150.18	\$ 28,389.08	\$ 36,268.35	\$ 18,866.23	\$ 8,489.80	\$ 3,820.41	\$ 1,719.19

- 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
- CCA Rate
- CCA
- Closing UCC

## UCC - Applications Software

- 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
- CCA Rate
- CCA
- Closing UCC



## Smart Meter Model for Electricity Distributors (2014 Filers)

### PILs Calculation

	2006 Audited Actual	2007 Audited Actual	2008 Audited Actual	2009 Audited Actual	2010 Audited Actual	2011 Audited Actual	2012 Audited Actual	2013 Audited Actual	2014 Forecast
<b>INCOME TAX</b>									
Net Income	\$ -	\$ -	\$ 1,423.07	\$ 29,586.12	\$ 81,539.85	\$ 108,852.87	\$ 107,153.02	\$ 98,163.51	\$ 89,209.18
Amortization	\$ -	\$ -	\$ 2,841.03	\$ 55,935.37	\$ 154,730.38	\$ 215,716.03	\$ 228,159.97	\$ 228,159.97	\$ 226,374.82
CCA - Smart Meters	\$ -	\$ -	\$ 2,391.28	\$ 60,654.42	\$ 166,226.74	\$ 221,801.52	\$ 218,568.80	\$ 201,083.30	\$ 184,996.63
CCA - Computers	\$ -	\$ -	\$ 2,332.83	\$ 13,101.10	\$ 24,525.23	\$ 20,913.12	\$ 10,376.43	\$ 4,669.39	\$ 2,101.23
CCA - Applications Software	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA - Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in taxable income	\$ -	\$ -	\$ 460.00	\$ 11,765.98	\$ 45,518.26	\$ 81,854.26	\$ 106,367.75	\$ 120,570.79	\$ 128,486.13
Tax Rate (from Sheet 3)	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%	26.50%	26.50%
Income Taxes Payable	\$ -	\$ -	\$ 154.10	\$ 3,882.77	\$ 14,110.66	\$ 23,123.83	\$ 27,921.54	\$ 31,951.26	\$ 34,048.83
<b>ONTARIO CAPITAL TAX</b>									
Smart Meters	\$ -	\$ -	\$ 57,789.27	\$ 1,408,663.50	\$ 2,624,976.17	\$ 2,787,641.73	\$ 2,575,429.47	\$ 2,363,217.20	\$ 2,151,004.93
Computer Hardware	\$ -	\$ -	\$ 7,634.70	\$ 5,938.10	\$ 22,954.30	\$ 17,099.30	\$ 11,244.30	\$ 5,389.30	\$ -
Computer Software (Including Application Software)	\$ -	\$ -	\$ -	\$ 31,806.00	\$ 35,189.25	\$ 28,958.65	\$ 18,865.95	\$ 8,773.25	\$ -
Tools & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Base	\$ -	\$ -	\$ 65,423.97	\$ 1,446,407.60	\$ 2,683,119.72	\$ 2,833,699.68	\$ 2,605,539.72	\$ 2,377,379.75	\$ 2,151,004.93
Less: Exemption	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deemed Taxable Capital	\$ -	\$ -	\$ 65,423.97	\$ 1,446,407.60	\$ 2,683,119.72	\$ 2,833,699.68	\$ 2,605,539.72	\$ 2,377,379.75	\$ 2,151,004.93
Ontario Capital Tax Rate (from Sheet 3)	0.300%	0.225%	0.225%	0.225%	0.075%	0.000%	0.000%	0.000%	0.000%
Net Amount (Taxable Capital x Rate)	\$ -	\$ -	\$ 147.20	\$ 3,254.42	\$ 2,012.34	\$ -	\$ -	\$ -	\$ -
Change in Income Taxes Payable	\$ -	\$ -	\$ 154.10	\$ 3,882.77	\$ 14,110.66	\$ 23,123.83	\$ 27,921.54	\$ 31,951.26	\$ 34,048.83
Change in OCT	\$ -	\$ -	\$ 147.20	\$ 3,254.42	\$ 2,012.34	\$ -	\$ -	\$ -	\$ -
PILs	\$ -	\$ -	\$ 6.90	\$ 7,137.19	\$ 16,123.00	\$ 23,123.83	\$ 27,921.54	\$ 31,951.26	\$ 34,048.83
<b>Gross Up PILs</b>									
Tax Rate	36.12%	36.12%	33.50%	33.00%	31.00%	28.25%	26.25%	26.50%	26.50%
Change in Income Taxes Payable	\$ -	\$ -	\$ 154.10	\$ 3,882.77	\$ 14,110.66	\$ 23,123.83	\$ 27,921.54	\$ 31,951.26	\$ 34,048.83
Change in OCT	\$ -	\$ -	\$ 147.20	\$ 3,254.42	\$ 2,012.34	\$ -	\$ -	\$ -	\$ -
PILs	\$ -	\$ -	\$ 84.53	\$ 9,049.60	\$ 22,462.57	\$ 32,228.33	\$ 37,859.71	\$ 43,471.10	\$ 46,324.93



## Smart Meter Model for Electricity Distributors (2014 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	\$ -		4.14%	\$ -	\$ -		
2007 Q2	4.59%		4.72%	Jun-06	2006	Q2	\$ -		4.14%	\$ -	\$ -		
2007 Q3	4.59%		5.18%	Jul-06	2006	Q3	\$ -	\$ 7,124.75	4.59%	\$ -	\$ 7,124.75		\$ 0.28
2007 Q4	5.14%		5.18%	Aug-06	2006	Q3	\$ 7,124.75	\$ 8,228.08	4.59%	\$ 27.25	\$ 15,380.08		\$ 0.28
2008 Q1	5.14%		5.18%	Sep-06	2006	Q3	\$ 15,352.83	\$ 7,674.80	4.59%	\$ 58.72	\$ 23,086.35		\$ 0.28
2008 Q2	4.08%		5.18%	Oct-06	2006	Q4	\$ 23,027.63	\$ 7,663.60	4.59%	\$ 88.08	\$ 30,779.31		\$ 0.28
2008 Q3	3.35%		5.43%	Nov-06	2006	Q4	\$ 30,691.23	\$ 7,652.40	4.59%	\$ 117.39	\$ 38,461.02		\$ 0.28
2008 Q4	3.35%		5.43%	Dec-06	2006	Q4	\$ 38,343.63	\$ 6,515.88	4.59%	\$ 146.66	\$ 45,006.17	\$ 45,297.61	\$ 0.28
2009 Q1	2.45%		6.61%	Jan-07	2007	Q1	\$ 44,859.51	\$ 448.85	4.59%	\$ 171.59	\$ 45,479.95		\$ 0.28
2009 Q2	1.00%		6.61%	Feb-07	2007	Q1	\$ 45,308.36	\$ 6,451.90	4.59%	\$ 173.30	\$ 51,933.56		\$ 0.28
2009 Q3	0.55%		5.67%	Mar-07	2007	Q1	\$ 51,760.26	\$ 7,678.85	4.59%	\$ 197.98	\$ 59,637.09		\$ 0.28
2009 Q4	0.55%		4.66%	Apr-07	2007	Q2	\$ 59,439.11	\$ 7,677.86	4.59%	\$ 227.35	\$ 67,344.32		\$ 0.28
2010 Q1	0.55%		4.34%	May-07	2007	Q2	\$ 67,116.97	\$ 7,712.56	4.59%	\$ 256.72	\$ 75,086.25		\$ 0.28
2010 Q2	0.55%		4.34%	Jun-07	2007	Q2	\$ 74,829.53	\$ 7,696.14	4.59%	\$ 286.22	\$ 82,811.89		\$ 0.28
2010 Q3	0.89%		4.66%	Jul-07	2007	Q3	\$ 82,525.67	\$ 7,641.95	4.59%	\$ 315.66	\$ 90,483.28		\$ 0.28
2010 Q4	1.20%		4.01%	Aug-07	2007	Q3	\$ 90,167.62	\$ 7,772.59	4.59%	\$ 344.89	\$ 98,285.10		\$ 0.28
2011 Q1	1.47%		4.29%	Sep-07	2007	Q3	\$ 97,940.21	\$ 7,699.56	4.59%	\$ 374.62	\$ 106,014.39		\$ 0.28
2011 Q2	1.47%		4.29%	Oct-07	2007	Q4	\$ 105,639.77	\$ 7,710.80	5.14%	\$ 452.49	\$ 113,803.06		\$ 0.28
2011 Q3	1.47%		4.29%	Nov-07	2007	Q4	\$ 113,350.57	\$ 7,694.41	5.14%	\$ 485.52	\$ 121,530.50		\$ 0.28
2011 Q4	1.47%	3.92%		Dec-07	2007	Q4	\$ 121,044.98	\$ 6,583.89	5.14%	\$ 518.48	\$ 128,147.35	\$ 86,574.18	\$ 0.28
2012 Q1	1.47%	3.92%		Jan-08	2008	Q1	\$ 127,628.87	\$ 8,850.41	5.14%	\$ 546.68	\$ 137,025.96		\$ 0.28
2012 Q2	1.47%	3.51%		Feb-08	2008	Q1	\$ 136,479.28	\$ 7,723.42	5.14%	\$ 584.59	\$ 144,787.29		\$ 0.28
2012 Q3	1.47%	3.51%		Mar-08	2008	Q1	\$ 144,202.70	\$ 6,706.24	5.14%	\$ 617.67	\$ 151,526.61		\$ 0.28
2012 Q4	1.47%	3.23%		Apr-08	2008	Q2	\$ 150,908.94	\$ 8,760.00	4.08%	\$ 513.09	\$ 160,182.03		\$ 0.28



## Smart Meter Model for Electricity Distributors (2014 Filers)

This worksheet calculates the funding adder revenues.

### Account 1555 - Sub-account Funding Adder Revenues

Interest Rates		Approved Deferral and Variance	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)
		Accounts											
2013 Q1		1.47%	3.23%	May-08	2008	Q2	\$ 159,668.94	\$ 7,751.49	4.08%	\$ 542.87	\$ 167,963.30		\$ 0.28
2013 Q2		1.47%	3.23%	Jun-08	2008	Q2	\$ 167,420.43	\$ 7,750.84	4.08%	\$ 569.23	\$ 175,740.50		\$ 0.28
2013 Q3		1.47%	3.23%	Jul-08	2008	Q3	\$ 175,171.27	\$ 7,747.55	3.35%	\$ 489.02	\$ 183,407.84		\$ 0.28
2013 Q4		1.47%	3.70%	Aug-08	2008	Q3	\$ 182,918.82	\$ 7,702.40	3.35%	\$ 510.65	\$ 191,131.87		\$ 0.28
2014 Q1		1.47%	3.70%	Sep-08	2008	Q3	\$ 190,621.22	\$ 7,791.15	3.35%	\$ 532.15	\$ 198,944.52		\$ 0.28
2014 Q2		1.47%	3.17%	Oct-08	2008	Q4	\$ 198,412.37	\$ 7,770.96	3.35%	\$ 553.90	\$ 206,737.23		\$ 0.28
2014 Q3		1.47%	3.17%	Nov-08	2008	Q4	\$ 206,183.33	\$ 7,754.06	3.35%	\$ 575.60	\$ 214,512.99		\$ 0.28
2014 Q4				Dec-08	2008	Q4	\$ 213,937.39	\$ 5,963.44	3.35%	\$ 597.24	\$ 220,498.07	\$ 98,904.65	\$ 0.28
				Jan-09	2009	Q1	\$ 219,900.83	\$ 7,779.02	2.45%	\$ 448.96	\$ 228,128.81		\$ 0.28
				Feb-09	2009	Q1	\$ 227,679.85	\$ 8,764.73	2.45%	\$ 464.85	\$ 236,909.43		\$ 0.28
				Mar-09	2009	Q1	\$ 236,444.58	\$ 7,804.71	2.45%	\$ 482.74	\$ 244,732.03		\$ 0.28
				Apr-09	2009	Q2	\$ 244,249.29	\$ 7,760.77	1.00%	\$ 203.54	\$ 252,213.60		\$ 0.28
				May-09	2009	Q2	\$ 252,010.06	\$ 9,335.37	1.00%	\$ 210.01	\$ 261,555.44		\$ 1.00
				Jun-09	2009	Q2	\$ 261,345.43	\$ 25,178.08	1.00%	\$ 217.79	\$ 286,741.30		\$ 1.00
				Jul-09	2009	Q3	\$ 286,523.51	\$ 27,616.13	0.55%	\$ 131.32	\$ 314,270.96		\$ 1.00
				Aug-09	2009	Q3	\$ 314,139.64	\$ 27,900.01	0.55%	\$ 143.98	\$ 342,183.63		\$ 1.00
				Sep-09	2009	Q3	\$ 342,039.65	\$ 27,817.14	0.55%	\$ 156.77	\$ 370,013.56		\$ 1.00
				Oct-09	2009	Q4	\$ 369,856.79	\$ 27,754.10	0.55%	\$ 169.52	\$ 397,780.41		\$ 1.00
				Nov-09	2009	Q4	\$ 397,610.89	\$ 27,419.21	0.55%	\$ 182.24	\$ 425,212.34		\$ 1.00
				Dec-09	2009	Q4	\$ 425,030.10	\$ 58,786.27	0.55%	\$ 194.81	\$ 484,011.18	\$ 266,922.07	\$ 1.00
				Jan-10	2010	Q1	\$ 483,816.37	\$ 31,842.89	0.55%	\$ 221.75	\$ 515,881.01		\$ 1.00
				Feb-10	2010	Q1	\$ 515,659.26	\$ 27,916.47	0.55%	\$ 236.34	\$ 543,812.07		\$ 1.00
				Mar-10	2010	Q1	\$ 543,575.73	\$ 27,912.11	0.55%	\$ 249.14	\$ 571,736.98		\$ 1.00
				Apr-10	2010	Q2	\$ 571,487.84	\$ 23,846.99	0.55%	\$ 261.93	\$ 595,596.76		\$ 1.00
				May-10	2010	Q2	\$ 595,334.83	\$ 26,992.57	0.55%	\$ 272.86	\$ 622,600.26		\$ 1.96
				Jun-10	2010	Q2	\$ 622,327.40	\$ 59,123.00	0.55%	\$ 285.23	\$ 681,735.63		\$ 1.96
				Jul-10	2010	Q3	\$ 681,450.40	\$ 47,375.21	0.89%	\$ 505.41	\$ 729,331.02		\$ 1.96
				Aug-10	2010	Q3	\$ 728,825.61	\$ 54,713.24	0.89%	\$ 540.55	\$ 784,079.40		\$ 1.96
				Sep-10	2010	Q3	\$ 783,538.85	\$ 62,567.41	0.89%	\$ 581.12	\$ 846,687.38		\$ 1.96



## Smart Meter Model for Electricity Distributors (2014 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)
			Oct-10	2010	Q4	\$ 846,106.26	\$ 54,262.66	1.20%	\$ 846.11	\$ 901,215.03		\$ 1.96
			Nov-10	2010	Q4	\$ 900,368.92	\$ 47,958.75	1.20%	\$ 900.37	\$ 949,228.04		\$ 1.96
			Dec-10	2010	Q4	\$ 948,327.67	\$ 85,498.12	1.20%	\$ 948.33	\$ 1,034,774.12	\$ 555,858.56	\$ 1.96
			Jan-11	2011	Q1	\$ 1,033,825.79	\$ 56,593.43	1.47%	\$ 1,266.44	\$ 1,091,685.66		\$ 1.96
			Feb-11	2011	Q1	\$ 1,090,419.22	\$ 62,826.91	1.47%	\$ 1,335.76	\$ 1,154,581.89		\$ 1.96
			Mar-11	2011	Q1	\$ 1,153,246.13	\$ 54,294.56	1.47%	\$ 1,412.73	\$ 1,208,953.42		\$ 1.96
			Apr-11	2011	Q2	\$ 1,207,540.69	\$ 52,995.32	1.47%	\$ 1,479.24	\$ 1,262,015.25		\$ 1.96
			May-11	2011	Q2	\$ 1,260,536.01	\$ 54,180.55	1.47%	\$ 1,544.16	\$ 1,316,260.72		\$ 1.96
			Jun-11	2011	Q2	\$ 1,314,716.56	\$ 55,569.28	1.47%	\$ 1,610.53	\$ 1,371,896.37		\$ 1.96
			Jul-11	2011	Q3	\$ 1,370,285.84	\$ 49,326.17	1.47%	\$ 1,678.60	\$ 1,421,290.61		\$ 1.96
			Aug-11	2011	Q3	\$ 1,419,612.01	\$ 53,266.63	1.47%	\$ 1,739.02	\$ 1,474,617.66		\$ 1.96
			Sep-11	2011	Q3	\$ 1,472,878.64	\$ 64,975.27	1.47%	\$ 1,804.28	\$ 1,539,658.19		\$ 1.96
			Oct-11	2011	Q4	\$ 1,537,853.91	\$ 55,132.31	1.47%	\$ 1,883.87	\$ 1,594,870.09		\$ 1.96
			Nov-11	2011	Q4	\$ 1,592,986.22	\$ 47,141.48	1.47%	\$ 1,951.41	\$ 1,642,079.11		\$ 1.96
			Dec-11	2011	Q4	\$ 1,640,127.70	\$ 52,764.03	1.47%	\$ 2,009.16	\$ 1,694,900.89	\$ 678,781.14	\$ 1.96
			Jan-12	2012	Q1	\$ 1,692,891.73	\$ 72,190.58	1.47%	\$ 2,073.79	\$ 1,767,156.10		\$ 1.96
			Feb-12	2012	Q1	\$ 1,765,082.31	\$ 59,856.64	1.47%	\$ 2,162.23	\$ 1,827,101.18		\$ 1.96
			Mar-12	2012	Q1	\$ 1,824,938.95	\$ 50,718.48	1.47%	\$ 2,235.55	\$ 1,877,892.98		\$ 1.96
			Apr-12	2012	Q2	\$ 1,875,657.43	\$ 42,339.66	1.47%	\$ 2,297.68	\$ 1,920,294.77		\$ 1.96
			May-12	2012	Q2	\$ 1,917,997.09	\$ 67,296.19	1.47%	\$ 2,349.55	\$ 1,987,642.83		
			Jun-12	2012	Q2	\$ 1,985,293.28	\$ 7,878.54	1.47%	\$ 2,431.98	\$ 1,995,603.80		
			Jul-12	2012	Q3	\$ 1,993,171.82	\$ 23.07	1.47%	\$ 2,441.64	\$ 1,995,636.53		
			Aug-12	2012	Q3	\$ 1,993,194.89	\$ 34.17	1.47%	\$ 2,441.66	\$ 1,995,670.72		
			Sep-12	2012	Q3	\$ 1,993,229.06	\$ 3.08	1.47%	\$ 2,441.71	\$ 1,995,673.85		
			Oct-12	2012	Q4	\$ 1,993,232.14	\$ 18.88	1.47%	\$ 2,441.71	\$ 1,995,654.97		
			Nov-12	2012	Q4	\$ 1,993,213.26	\$ 3.92	1.47%	\$ 2,441.69	\$ 1,995,651.03		
			Dec-12	2012	Q4	\$ 1,993,209.34	\$ 78,990.19	1.47%	\$ 2,441.68	\$ 1,916,660.83	\$ 249,528.29	
			Jan-13	2013	Q1	\$ 1,914,219.15	\$ -	1.47%	\$ 2,344.92	\$ 1,916,564.07		
			Feb-13	2013	Q1	\$ 1,914,219.15	\$ -	1.47%	\$ 2,344.92	\$ 1,916,564.07		





## Smart Meter Model for Electricity Distributors (2014 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)
			Mar-13	2013	Q1	\$ 1,914,219.15	\$ 6.30	1.47%	\$ 2,344.92	\$ 1,916,570.37		
			Apr-13	2013	Q2	\$ 1,914,225.45	\$ 37.17	1.47%	\$ 2,344.93	\$ 1,916,533.21		
			May-13	2013	Q2	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Jun-13	2013	Q2	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Jul-13	2013	Q3	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Aug-13	2013	Q3	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Sep-13	2013	Q3	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Oct-13	2013	Q4	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Nov-13	2013	Q4	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Dec-13	2013	Q4	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16	\$ 28,107.86	
			Jan-14	2014	Q1	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Feb-14	2014	Q1	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Mar-14	2014	Q1	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Apr-14	2014	Q2	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			May-14	2014	Q2	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Jun-14	2014	Q2	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Jul-14	2014	Q3	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Aug-14	2014	Q3	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Sep-14	2014	Q3	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Oct-14	2014	Q4	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Nov-14	2014	Q4	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16		
			Dec-14	2014	Q4	\$ 1,914,188.28	\$ -	1.47%	\$ 2,344.88	\$ 1,916,533.16	\$ 28,138.56	
<b>Total Funding Adder Revenues Collected</b>							<b>\$ 1,914,188.28</b>		<b>\$ 123,924.64</b>	<b>\$ 2,038,112.92</b>	<b>\$ 2,038,112.92</b>	



## Smart Meter Model for Electricity Distributors (2014 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	\$ -	\$ 149		\$ 149	5.14%	\$ -	\$ -
2012 Q2	1.47%	3.51%	Feb-08	2008	Q1	\$ 149	\$ 149		\$ 299	5.14%	\$ 1	\$ 1
2012 Q3	1.47%	3.51%	Mar-08	2008	Q1	\$ 299	\$ 149		\$ 448	5.14%	\$ 1	\$ 2
2012 Q4	1.47%	3.23%	Apr-08	2008	Q2	\$ 448	\$ 149		\$ 598	4.08%	\$ 2	\$ 3
2013 Q1	1.47%	3.23%	May-08	2008	Q2	\$ 598	\$ 149		\$ 747	4.08%	\$ 2	\$ 5
2013 Q2	1.47%	3.23%	Jun-08	2008	Q2	\$ 747	\$ 100		\$ 847	4.08%	\$ 3	\$ 8
2013 Q3	1.47%	3.23%	Jul-08	2008	Q3	\$ 847	\$ 846		\$ 1,693	3.35%	\$ 2	\$ 10
2013 Q4	1.47%	3.70%	Aug-08	2008	Q3	\$ 1,693	\$ 833		\$ 2,527	3.35%	\$ 5	\$ 15
2014 Q1	1.47%	3.70%	Sep-08	2008	Q3	\$ 2,527	\$ 649		\$ 3,176	3.35%	\$ 7	\$ 22

2014 Q2 1.47% 3.17%  
2014 Q3 1.47% 3.17%  
2014 Q4 0.00% 0.00%

Oct-08	2008	Q4	\$	3,176	\$	3,544	\$	6,720	3.35%	\$	9	\$	31
Nov-08	2008	Q4	\$	6,720	\$	460	\$	7,180	3.35%	\$	19	\$	50
Dec-08	2008	Q4	\$	7,180	\$	464	\$	2,841	3.35%	\$	20	\$	70
Jan-09	2009	Q1	\$	10,485	\$	244	\$	4,661	2.45%	\$	21	\$	91
Feb-09	2009	Q1	\$	15,390	\$	363	\$	4,661	2.45%	\$	31	\$	123
Mar-09	2009	Q1	\$	20,415	\$	485	\$	4,661	2.45%	\$	42	\$	164
Apr-09	2009	Q2	\$	25,560	\$	1,813	\$	4,661	1.00%	\$	21	\$	186
May-09	2009	Q2	\$	32,035	\$	1,135	\$	4,661	1.00%	\$	27	\$	212
Jun-09	2009	Q2	\$	37,831	\$	2,157	\$	4,661	1.00%	\$	32	\$	244
Jul-09	2009	Q3	\$	44,649	\$	1,297	\$	4,661	0.55%	\$	20	\$	264
Aug-09	2009	Q3	\$	50,607	\$	2,571	\$	4,661	0.55%	\$	23	\$	288
Sep-09	2009	Q3	\$	57,839	\$	4,415	\$	4,661	0.55%	\$	27	\$	314
Oct-09	2009	Q4	\$	66,916	\$	1,401	\$	4,661	0.55%	\$	31	\$	345
Nov-09	2009	Q4	\$	72,977	\$	734	\$	4,661	0.55%	\$	33	\$	378
Dec-09	2009	Q4	\$	78,372	\$	5,298	\$	4,661	0.55%	\$	36	\$	414
Jan-10	2010	Q1	\$	88,331	\$	2,763	\$	12,894	0.55%	\$	40	\$	455
Feb-10	2010	Q1	\$	103,988	\$	1,806	\$	12,894	0.55%	\$	48	\$	502
Mar-10	2010	Q1	\$	118,689	\$	2,263	\$	12,894	0.55%	\$	54	\$	557
Apr-10	2010	Q2	\$	133,846	\$	676	\$	12,894	0.55%	\$	61	\$	618
May-10	2010	Q2	\$	147,416	\$	499	\$	12,894	0.55%	\$	68	\$	686
Jun-10	2010	Q2	\$	160,810	\$	3,752	\$	12,894	0.55%	\$	74	\$	759
Jul-10	2010	Q3	\$	177,455	\$	1,241	\$	12,894	0.89%	\$	132	\$	891
Aug-10	2010	Q3	\$	191,591	\$	1,669	\$	12,894	0.89%	\$	142	\$	1,033
Sep-10	2010	Q3	\$	206,154	\$	6,540	\$	12,894	0.89%	\$	153	\$	1,186
Oct-10	2010	Q4	\$	225,588	\$	1,653	\$	12,894	1.20%	\$	226	\$	1,411
Nov-10	2010	Q4	\$	240,135	\$	5,698	\$	12,894	1.20%	\$	240	\$	1,652
Dec-10	2010	Q4	\$	258,727	\$	3,279	\$	12,894	1.20%	\$	259	\$	1,910
Jan-11	2011	Q1	\$	274,900	\$	8,815	\$	17,976	1.47%	\$	337	\$	2,247
Feb-11	2011	Q1	\$	301,691	\$	178	\$	17,976	1.47%	\$	370	\$	2,617
Mar-11	2011	Q1	\$	319,846	\$	-	\$	17,976	1.47%	\$	392	\$	3,008
Apr-11	2011	Q2	\$	337,822	\$	59	\$	17,976	1.47%	\$	414	\$	3,422
May-11	2011	Q2	\$	355,857	\$	59	\$	17,976	1.47%	\$	436	\$	3,858
Jun-11	2011	Q2	\$	373,892	\$	1,338	\$	17,976	1.47%	\$	458	\$	4,316
Jul-11	2011	Q3	\$	393,207	\$	12,272	\$	17,976	1.47%	\$	482	\$	4,798
Aug-11	2011	Q3	\$	423,455	\$	5,715	\$	17,976	1.47%	\$	519	\$	5,317
Sep-11	2011	Q3	\$	447,147	\$	59	\$	17,976	1.47%	\$	548	\$	5,864
Oct-11	2011	Q4	\$	465,182	\$	175	\$	17,976	1.47%	\$	570	\$	6,434
Nov-11	2011	Q4	\$	483,333	\$	177	\$	17,976	1.47%	\$	592	\$	7,026
Dec-11	2011	Q4	\$	501,486	\$	177	\$	17,976	1.47%	\$	614	\$	7,641
Jan-12	2012	Q1	\$	519,639			\$	19,013	1.47%	\$	637	\$	8,277
Feb-12	2012	Q1	\$	538,652			\$	19,013	1.47%	\$	660	\$	8,937
Mar-12	2012	Q1	\$	557,666			\$	19,013	1.47%	\$	683	\$	9,620
Apr-12	2012	Q2	\$	576,679			\$	19,013	1.47%	\$	706	\$	10,327
May-12	2012	Q2	\$	595,692			\$	19,013	1.47%	\$	730	\$	11,056
Jun-12	2012	Q2	\$	614,706			\$	19,013	1.47%	\$	753	\$	11,809
Jul-12	2012	Q3	\$	633,719			\$	19,013	1.47%	\$	776	\$	12,586
Aug-12	2012	Q3	\$	652,732			\$	19,013	1.47%	\$	800	\$	13,385
Sep-12	2012	Q3	\$	671,746			\$	19,013	1.47%	\$	823	\$	14,208
Oct-12	2012	Q4	\$	690,759			\$	19,013	1.47%	\$	846	\$	15,054
Nov-12	2012	Q4	\$	709,772			\$	19,013	1.47%	\$	869	\$	15,924
Dec-12	2012	Q4	\$	728,786			\$	19,013	1.47%	\$	893	\$	16,817
Jan-13	2013	Q1	\$	747,799			\$	19,013	1.47%	\$	916	\$	17,733
Feb-13	2013	Q1	\$	766,812			\$	19,013	1.47%	\$	939	\$	18,672
Mar-13	2013	Q1	\$	785,826			\$	19,013	1.47%	\$	963	\$	19,635
Apr-13	2013	Q2	\$	804,839			\$	19,013	1.47%	\$	986	\$	20,620
May-13	2013	Q2	\$	823,852			\$	19,013	1.47%	\$	1,009	\$	21,630
Jun-13	2013	Q2	\$	842,866			\$	19,013	1.47%	\$	1,033	\$	22,662
Jul-13	2013	Q3	\$	861,879			\$	19,013	1.47%	\$	1,056	\$	23,718
Aug-13	2013	Q3	\$	880,892			\$	19,013	1.47%	\$	1,079	\$	24,797
Sep-13	2013	Q3	\$	899,906			\$	19,013	1.47%	\$	1,102	\$	25,900

Oct-13	2013	Q4	\$	918,919		\$	19,013	\$	937,933	1.47%	\$	1,126	\$	27,025	
Nov-13	2013	Q4	\$	937,933		\$	19,013	\$	956,946	1.47%	\$	1,149	\$	28,174	
Dec-13	2013	Q4	\$	956,946		\$	19,013	\$	975,960	1.47%	\$	1,172	\$	29,346	
Jan-14	2014	Q1	\$	975,960	\$	-	\$	18,865	\$	994,824	1.47%	\$	1,196	\$	30,542
Feb-14	2014	Q1	\$	994,824	\$	-	\$	18,865	\$	1,013,689	1.47%	\$	1,219	\$	31,761
Mar-14	2014	Q1	\$	1,013,689	\$	-	\$	18,865	\$	1,032,553	1.47%	\$	1,242	\$	33,002
Apr-14	2014	Q2	\$	1,032,553	\$	-	\$	18,865	\$	1,051,418	1.47%	\$	1,265	\$	34,267
May-14	2014	Q2	\$	1,051,418	\$	-	\$	18,865	\$	1,070,283	1.47%	\$	1,288	\$	35,555
Jun-14	2014	Q2	\$	1,070,283	\$	-	\$	18,865	\$	1,089,147	1.47%	\$	1,311	\$	36,866
Jul-14	2014	Q3	\$	1,089,147	\$	-	\$	18,865	\$	1,108,012	1.47%	\$	1,334	\$	38,201
Aug-14	2014	Q3	\$	1,108,012	\$	-	\$	18,865	\$	1,126,876	1.47%	\$	1,357	\$	39,558
Sep-14	2014	Q3	\$	1,126,876	\$	-	\$	18,865	\$	1,145,741	1.47%	\$	1,380	\$	40,938
Oct-14	2014	Q4	\$	1,145,741	\$	-	\$	18,865	\$	1,164,605	1.47%	\$	1,404	\$	42,342
Nov-14	2014	Q4	\$	1,164,605	\$	-	\$	18,865	\$	1,183,470	1.47%	\$	1,427	\$	43,768
Dec-14	2014	Q4	\$	1,183,470	\$	-	\$	18,865	\$	1,202,335	1.47%	\$	1,450	\$	45,218
				\$	90,417	\$	1,111,918	\$	1,202,335		\$	45,218	\$	45,218	



## Smart Meter Model for Electricity Distributors (2014 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	\$ 7,643.00	\$ 2,841.03	\$ 10,484.03	\$ 5,242.02	3.98%	\$ 208.63
2009	\$ 21,912.00	\$ 55,935.37	\$ 88,331.40	\$ 49,407.72	1.14%	\$ 562.01
2010	\$ 31,838.50	\$ 154,730.38	\$ 274,900.28	\$ 181,615.84	0.80%	\$ 1,448.39
2011	\$ 29,023.00	\$ 215,716.03	\$ 519,639.32	\$ 397,269.80	1.47%	\$ 5,839.87
2012	\$ -	\$ 228,159.97	\$ 747,799.28	\$ 633,719.30	1.47%	\$ 9,315.67
2013	\$ -	\$ 228,159.97	\$ 975,959.25	\$ 861,879.27	1.47%	\$ 12,669.63
2014	\$ -	\$ 226,374.82	\$ 1,202,334.07	\$ 1,089,146.66	1.47%	\$ 16,010.46
<b>Cumulative Interest to 2012</b>						\$ 17,374.57
<b>Cumulative Interest to 2013</b>						\$ 30,044.20
<b>Cumulative Interest to 2014</b>						\$ 46,054.65



## Smart Meter Model for Electricity Distributors (2014 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)  
☒ Smart Meter Disposition Rider (SMDR)  
☒ Smart Meter Incremental Revenue Requirement Rate Rider (SMIRR)

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

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

	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Deferred and forecasted Smart Meter Incremental Revenue Requirement (from Sheet 5)	\$ -	\$ -	\$ 12,986.58	\$ 144,248.27	\$ 354,867.76	\$ 471,653.76	\$ 457,665.84	\$ 447,199.25	\$ 432,252.86	\$ 1,888,621.46
Interest on Deferred and forecasted OM&A and Amortization Expense (Sheet 8A/8B) (Check one of the boxes below)	\$ -	\$ -	\$ 69.83	\$ 344.24	\$ 1,496.22	\$ 5,730.33	\$ 9,175.92	\$ 12,529.87		\$ 29,346.41
<input checked="" type="checkbox"/> Sheet 8A (Interest calculated on monthly balances)	\$ -	\$ -	\$ 69.83	\$ 344.24	\$ 1,496.22	\$ 5,730.33	\$ 9,175.92	\$ 12,529.87	\$ 15,871.81	\$ 29,346.41
<input type="checkbox"/> Sheet 8B (Interest calculated on average annual balances)										
SMFA Revenues (from Sheet 8)	\$ 44,859.51	\$ 82,769.36	\$ 92,271.96	\$ 263,915.54	\$ 550,009.42	\$ 659,065.94	\$ 221,327.42	\$ 30.87	\$ -	\$ 1,914,188.28
SMFA Interest (from Sheet 8)	\$ 438.10	\$ 3,804.82	\$ 6,632.69	\$ 3,006.53	\$ 5,849.14	\$ 19,715.20	\$ 28,200.87	\$ 28,138.73	\$ 28,138.56	\$ 123,924.64
Net Deferred Revenue Requirement	-\$ 45,297.61	-\$ 86,574.18	-\$ 85,848.24	-\$ 122,329.56	-\$ 199,494.58	-\$ 201,397.05	\$ 217,313.47	\$ 431,621.27	\$ 404,114.30	-\$ 120,145.05

Number of Metered Customers (average for 2014 test year)

- 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)

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### Calculation of Smart Meter Funding Adder (per metered customer per month)

Net Deferred Revenues	May 1, 2012 to December 31, 2013	-\$ 120,145.05
SMFA	January 1, 2015 to December 31, 2015	\$ 1.29
Check: Forecasted SMFA Revenues for 2014 test year		\$ 432,232.56

### 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, 2013 plus Interest on OM&A and Amortization	\$ 1,917,967.87	
SMFA Revenues collected from 2006 to 2014 test year (inclusive) Plus Simple Interest on SMFA Revenues	\$ 2,038,112.92	
Net Deferred Revenue Requirement	-\$ 120,145.05	
SMDR	January 1, 2015 to December 31, 2015	-\$ 0.36
Check: Forecasted SMDR Revenues		-\$ 120,623.04

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

Incremental Revenue Requirement for 2014	\$ 432,252.86	
SMIRR	\$ 1.29	
Check: Forecasted SMIRR Revenues	\$ 432,232.56	



## Smart Meter Model for Electricity Distributors (2014 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	2013	Total 2006 to 2013	Explanation / Allocator Check Row if SMDR/SMIRR apply to class	Residential X	GS < 50 kW X	GS 50 to 4999 kW	Other (please specify)	Total
											%	%	%	%	2
Return on Capital	\$ -	\$ -	\$ 2,587.07	\$ 57,351.30	\$ 145,836.30	\$ 194,686.39	\$ 191,646.16	\$ 175,568.18	\$ 767,675.42	Weighted Meter Cost - Capital Allocated per class	\$ 614,140.33	\$ 153,535.08	\$ -	\$ -	100%
Depreciation/Amortization expense and related interest	\$ -	\$ -	\$ 2,841.03	\$ 55,935.37	\$ 154,730.38	\$ 215,716.03	\$ 228,159.97	\$ 228,159.97	\$ 913,806.48	Weighted Meter Cost - Capital Allocated per class	\$ 731,045.18	\$ 182,761.30	\$ -	\$ -	100%
Operating Expenses and related interest	\$ -	\$ -	\$ 7,643.00	\$ 21,912.00	\$ 31,838.50	\$ 29,023.00	\$ -	\$ -	\$ 91,499.18	Number of Smart Meters installed by Class Allocated per class	\$ 85,302.46	\$ 6,196.72	0	0	
Revenue Requirement before Taxes/PILs									\$ 1,772,981.08		\$ 1,430,487.97	\$ 342,493.10	\$ -	\$ -	\$ -
Grossed-up Taxes/PILs	\$ -	\$ -	\$ 84.53	\$ 9,049.60	\$ 22,462.57	\$ 32,228.33	\$ 37,859.71	\$ 43,471.10	\$ 144,986.79	Revenue Requirement before PILs	\$ 116,979.17	\$ 28,007.62	\$ -	\$ -	
Total Revenue Requirement plus interest on O&M&A and depreciation expense									\$ 1,917,967.87	Percentage of costs allocated to each class Percentage of costs for classes with SMDR/SMIRR	\$ 1,547,467.15	\$ 370,500.72	\$ -	\$ -	
											80.68%	19.32%	0.00%	0.00%	
											80.68%	19.32%	0.00%	0.00%	
											80.68%	19.32%	0.00%	0.00%	
											%	%	%	%	
											93.50%	6.50%			100%
											93.50%	6.50%	0.00%	0.00%	100.00%
											0.00%	0.00%	0.00%	0.00%	
											93.50%	6.50%	0.00%	0.00%	
SMFA Revenues plus interest expense									\$ 2,038,112.92		\$ 1,905,635.58	\$ 132,477.34	\$ -	\$ -	
Net Deferred Revenue Requirement to be recovered via SMDR									-\$ 120,145.05		-\$ 358,168.43	\$ 238,023.38	\$ -	\$ -	
Average number of metered customers by class (2014), for customer classes with smart meters deployed										Average number of customers (2014)	26,031	1,891	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)											-\$ 1.15	\$ 10.49			
Estimated SMDR Revenues									-\$ 121,188.72		-\$ 359,227.80	\$ 238,039.08	\$ -	\$ -	
									\$ 1,043.67						

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	2014	Explanation / Allocator Check Row if SMDR/SMIRR apply to class	Residential	GS < 50 kW	GS 50 to 4999 kW	Other (please specify)	Total
			X	X			2
		Weighted Meter Cost - Capital	80.00%	20.00%	0.00%	0.00%	100%
Return on Capital	\$ 159,553.11	Allocated per class	\$ 127,642.48	\$ 31,910.62	\$ 0.00%	\$ -	
Depreciation/Amortization expense		Weighted Meter Cost - Capital	80.00%	20.00%	0.00%	0.00%	100%
	\$ 226,374.82	Allocated per class	\$ 181,099.85	\$ 45,274.96	\$ 0.00%	\$ -	
Operating Expenses	\$ -	Number of Smart Meters installed by Class	# 26,031	# 1,891	# -	# -	
	\$ -	Allocated per class	\$ -	\$ -	\$ -	\$ -	
Revenue Requirement before Taxes/PILs	\$ 385,927.92		\$ 308,742.34	\$ 77,185.58	\$ -	\$ -	\$ -
		Revenue Requirement before PILs	80.00%	20.00%	0.00%	0.00%	100%
Grossed-up Taxes/PILs	\$ 46,324.93		\$ 37,059.95	\$ 9,264.99	\$ -	\$ -	
Total Revenue Requirement for 2013	\$ 432,252.86	Percentage of costs allocated to each class	80.00%	20.00%	0.00%	0.00%	
	\$ -	Percentage of costs for classes with SMDR/SMIRR	80.00%	20.00%	0.00%	0.00%	
Average number of metered customers by class (2013)			26,031	1,891	-	-	
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)			\$ 1.11	\$ 3.81			
Estimated SMIRR Revenues	\$ 433,189.44		\$ 346,732.92	\$ 86,456.52	\$ -	\$ -	
	\$ 936.58						



## **Appendix A**

### **Fairness Commissioner Letter**



# PRP International, Inc.

## *Fairness Advisory Services*

May 30, 2008

Mr. Richard Dimmel  
General Manager]  
Essex Powerlines Corporation  
360 Fairview Avenue, W. Suite 318  
Essex, ON N8M 3G4

Dear Mr. Dimmel:

Subject: Attestation of the Fairness Commissioner  
Advanced Metering Infrastructure RFP, August 2007  
London Hydro & Consortium of LDCs Smartmetering Project

PRP International, Inc. is pleased to submit its letter report of the Fairness Commissioner for the noted Request for Proposal (RFP) evaluation and selection phase. This judgment is being provided for the information and use of each Consortium LDC Sponsor, in their consideration of the report from the Evaluation Phase, for this competitive transaction.

*"It is the judgment of PRP International, Inc., as the Fairness Commissioner, that the determinations of the two (2) highest ranked Proponents for the Essex Powerlines Corporation requirements are:*

- Elster Metering, as the recommended Preferred Proponent, based on its highest ranking, and*
- KTI/Sensus Limited being the second ranked Proponent.*

*These determinations were made in a fair (objective and competent) manner and consistent with the evaluation and selection processes set out in the RFP, issued August 14, 2007."*

A detailed report for your records will be submitted to you, by August 31, 2008. Should you have any questions or require clarification of any matter contained in this letter report, please contact the undersigned.

Yours truly,

*Original signed by:*

Peter Sorensen  
President  
cc: Mr. Gary Rains, RFP Project Director

## **Appendix B**

### **“Your Smart Meter is Coming Soon” Brochure**

## YOUR SMART METER IS COMING SOON.

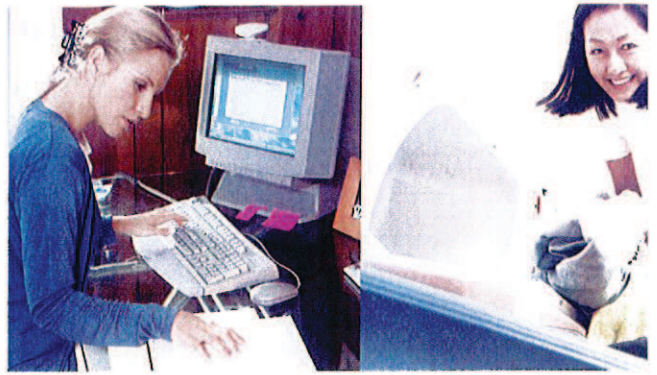


**Over the next 30 days, we'll be installing  
your new smart electricity meter.**

To learn how SMART METERS work, how electricity pricing will change in the future, and how you can best take advantage of smart metering, please go to our website to review the Smart Meter Answer Book or contact us for a copy.

- **For now, your new meter will continue to work just like your current one.** So, please be aware there will be no immediate change to your electricity rates, or how you are billed.
- **We'll ensure that you're kept informed.**





Your SMART METER is the first step in building Ontario's new smart metering system – and a key step in building a culture of conservation. By 2010 every home and small business in Ontario will have a SMART METER.

SMART METERS enable electricity use to be measured on an hourly basis. In the future, that will allow different electricity rates to apply at different times of the day.

#### HOW WILL MY SMART METER BE INSTALLED?

- You'll receive a visit from one of our service professionals.
- If your meter is located outside, you don't need to be at home.
- We'll need to turn your power off for a brief period, and apologize for any inconvenience.

#### IF YOU'D LIKE MORE INFORMATION, PLEASE CONTACT:

Essex Powerlines Corporation

Tel: 519-776-8900 or

1-866-776-8900 (Amherstburg residents only)

Website: [www.essexpowerlines.ca](http://www.essexpowerlines.ca)



## **Appendix C**

### **Smart Meter Deployment letter to each Municipality**



April 27, 2009

Town of Amherstburg  
P. O. Box 159  
Amherstburg, Ontario N9V 2Z3

Attention: Pamela Malott  
Chief Administrative Officer

Dear Ms Malott:

**Re: Essex Powerlines's Smart Meter Deployment – Amherstburg May 4<sup>th</sup>, 2009**

As per Provincial mandate for all residential and small commercial customers to have a SmartMeter by the end of 2010, Essex Powerlines will begin installing smart meters in the Town of Amherstburg, Monday May 4, 2009. The following is the procedure that will be followed and is provided for your information should the Town receive enquiries from residents.

- all Smart Meter inquiries should be directed to the Essex Powerlines' Office in Essex, as are all other billing and administration inquiries;
- a '**Smart Meters are Coming**' insert will be included with Amherstburg customer bills being mailed out this week
- two 2-man crews will be starting in Amherstburg on Monday May 4th and will systematically work through the town with an estimated completion of Amherstburg by the end of June or early July;
- the meter change will require a momentary power outage at each residence;
- crews will knock to notify the customer and, if the customer is home, allow for electronic/computer turn off prior to change;
- if the customer is not home, the meter will be changed and a '**Smart Meters are Here**' card will be left in the mailbox or at the door;
- indoor or difficult-to-change non-standard meter installations will be by-passed and followed up later.

The '**Smart Meters are Here/Meter Change**' card to be left at each residence when meter is changed will explain the following:

- a Smart Meter has been installed
- due to the meter change, a momentary power outage occurred and clocks and electronics will have to be reset
- the new Smart Meter will continue to be manually read and will operate as the former traditional meter for the time being, until mid-late 2010 when provincially mandated 'Time of Use' Rates will be introduced
- Essex Powerlines will clearly communicate and educate all customers about 'Time of Use' rates prior to implementation later in 2010
- Instructions for accessing the Essex Powerlines' website or contacting the Essex Powerlines ' Call Centre for access to the Smart Meter/Time of Use Rate education brochure and other Energy Conservation material will be provided.

Please provide the above information to those in your administration who may field enquiries from residents, including members of Town Council. Should you have any questions or require additional information, please do not hesitate to contact us.

Yours truly

A handwritten signature in dark ink, appearing to read 'Ray J. Tracey', is positioned above the printed name.

Raymond J. Tracey, P. Eng.  
President & C.E.O.



## **Appendix E**

### **Introducing Smart Meters cards left with customer**



# Introducing Smart Meters



Dear Customer,

As a means of achieving the Provincial Government's goal of installing a smart meter in every Ontario home and small business by 2010, Essex Powerlines has commenced the process of installing Smart Meters for homes in our service territory.

## Here's What You Need to Know Right Now:

- For now, your new meter will continue to work just like your current one.
- There will be no immediate change to your electricity rates, or to how you are billed.
- We'll ensure that you're kept informed; you will receive ample notice of changes that affect you, or how your rates work.

## When We Exchanged Your Meter:

We needed to shut off your power briefly. That means you may need to reset your digital clocks and other electronic equipment. We apologize for the inconvenience.

For Details Contact



360 Fairview Ave. W.  
Suite 218  
Essex, Ontario  
N8M 3G4

519-776-8900

OR

1-866-776-8900  
(Amherstburg customers only)

[www.essexpowerlines.ca](http://www.essexpowerlines.ca)

## Your Power... Our Priority

For now your new meter will function just like your old meter. but, in the future, when smart metering systems are fully functional and time-of-use rates are in effect, smart meters will transform the way we use electricity.

**Essex Powerlines will communicate with you BEFORE time-of-use rates come into effect.**

At Essex Powerlines we are fully committed to helping Ontario build a conservation culture. The installation of your smart meter is an important step in achieving this goal.

If you'd like more information about Smart Meters, download the 'Smart Meter Answer Book' at [www.essexpowerlines.ca](http://www.essexpowerlines.ca) or call to request a copy.



## **Appendix F**

### **Introducing Time-of-Use Rates – A Quick Guide**



## Energy shifting and saving tips you can use right now!

The most energy intensive appliances are those that heat or cool air or water. Focus on shifting them for the greatest benefit.

- Clothes washing and drying
  - Shift laundry to off-peak periods where possible. Rinse and wash with cold water whenever possible.
- Dishwashing
- Shift dishwasher use to off-peak periods where possible. Always run full loads and don't forget to use the air-dry setting.

### Air conditioning and heating

- Install a programmable thermostat and set it to reduce your energy use when you're not home and when you're sleeping.
- In the summer, as much as possible, avoid running your air conditioner from 11 a.m. to 5 p.m. on weekdays – consider a fan first for cooling.
- Check for drafts and leaks that will let your winter heat out and invite muggy summer air in. Caulking and weather-stripping are simple and inexpensive.
- Use a portable fan in conjunction with your air conditioner and set the thermostat to 26–28 C.
- In the summer, keep blinds and curtains closed to keep out the midday sun.
- Wrap your electric hot water tank and pipes in a special tank blanket to help keep its heat. (But don't wrap a gas heater, as an inappropriate or incorrectly installed blanket is dangerous.)

### Take advantage of lower rates during off-peak periods by using timers and motion sensors.

- Put your electronics and chargers on power bars with timers. Set the timer for chargers to come on during off-peak periods and shut off after only a few hours of charging. Have electronics turned off while you're asleep or away.
- If you have a swimming pool, sauna, or spa, try using timers where possible to operate pumps, filters and heaters during off-peak periods where prices are lowest.
- Consider automatic timers, motion sensors and dimmers to help maximize your control over lighting costs.

### Think about Time-of-Use periods when conducting routine activities and purchasing new appliances.

- For instance, if you have a self-cleaning oven or electric lawn mower, consider using them on weekends to take advantage of off-peak rates.
- If you need to purchase a new appliance, consider appliances with timer functions that allow you to take advantage of Time-of-Use rates – and always look for the Energy Star label.

## See for yourself!

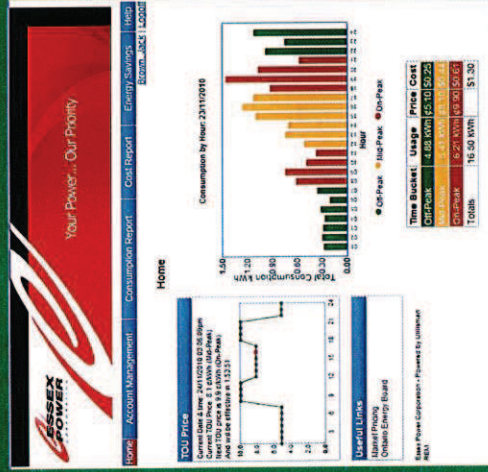
The SMART METER information for your home is now online!

Visit

[www.essexpowerlines.ca/time-of-use-information](http://www.essexpowerlines.ca/time-of-use-information)

to see how much off-peak, mid-peak and on-peak power you're using.

**Power. Smarter.**



Webpage view of graphs and charts.

**ESSEX POWERLINES CORPORATION**

**Ontario**

For more information visit:  
[www.ontario.ca/power smarter](http://www.ontario.ca/power smarter)



# INTRODUCING TIME-OF-USE RATES

*A Quick Guide*







## Introducing a new way to manage your electricity costs and be part of the province's conservation plan.

SMART METERS and Time-of-Use rates are new energy management tools that will enable you to help smooth "peak demand".

When we're all using a lot of electricity at the same time we create "peak demand" periods. And supplying electricity at those peak times has a range of impacts:

- It adds to our electricity costs because higher demand leads to higher prices.
- It's hard on the environment because meeting the peaks may require the building of additional electricity generation plants.
- It adds to the amount of new generation, transmission and distribution infrastructure Ontario must build; and consumers must pay for.
- It puts a strain on our electricity system.

So working together to reduce our use at peak times makes good sense.

Want to know more? Read this Quick Guide to Time-of-Use rates, then go to [www.essexpowerlines.ca/time-of-use-information](http://www.essexpowerlines.ca/time-of-use-information) today - and discover how TOU rates can help you manage your electricity needs.

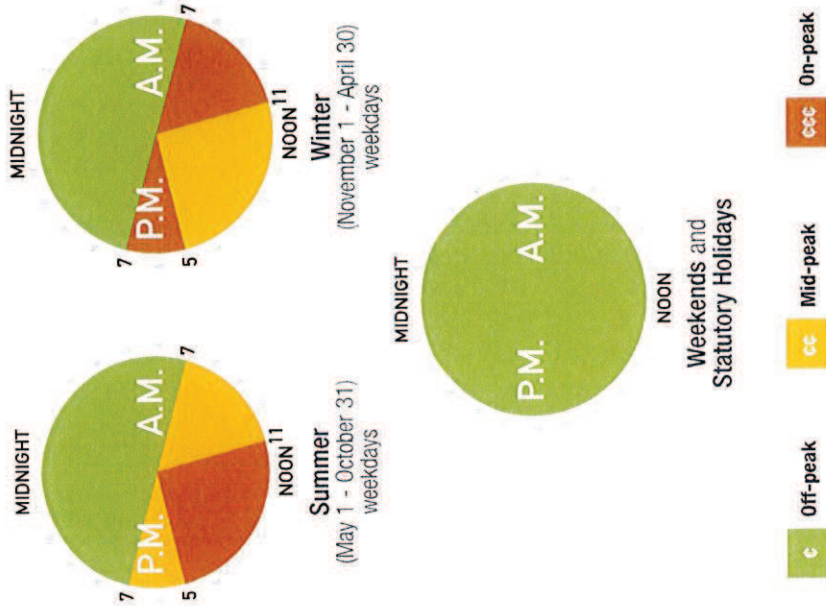
Note: If you currently purchase your electricity commodity through a retailer, you will continue to follow the terms and price stated in your contract.

## Simple changes can bring real benefits.

The price of your electricity use will now be calculated using new "Time-of-Use" (TOU) rates. By using Time-of-Use rates to manage your electricity costs, you can help reduce the need for additional power generation during peak periods. Simple changes to your regular routine can help smooth those peaks and create real supply and environmental benefits.

## Putting you in control.

Time-of-Use pricing rewards you for using electricity during low-demand periods whenever possible (reflected in green). These Time-of-Use rates — off-peak, mid-peak and on-peak, will vary between summer and winter. As you can see from the seasonal charts below, the lowest rates are at night, on weekends and statutory holidays.



Note: Visit the Ontario Energy Board at [www.oeb.gov.on.ca](http://www.oeb.gov.on.ca) for current pricing.

## Choose your time. Manage your costs.

Your SMART METER automatically records your electricity consumption on an hourly basis so you can take advantage of Time-of-Use pricing:

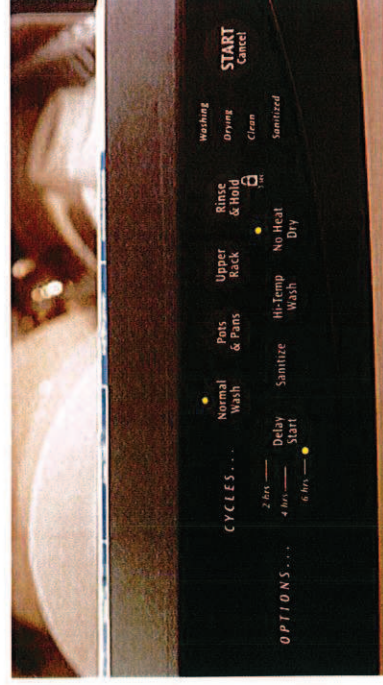
- During on-peak periods, when demand (and production costs) are highest, prices will be higher.
- During mid-peak times, when demand is moderate, prices will be lower.
- During off-peak hours, the least busy periods of the day, prices will be the lowest.

Depending on when you choose to run your appliances, here are some sample costs for typical appliances. You can find how much electricity your specific appliance/model consumes by visiting Natural Resources Canada's Office of Energy Efficiency's website at [www.oee.nrcan.gc.ca](http://www.oee.nrcan.gc.ca) or by calling NRC's Office of Energy Efficiency at 1-800-387-2000 (toll-free).

Appliance	Time-of-Use Rate Examples		
	Off-peak 4.4¢ Per kWh	Mid-peak 8¢ Per kWh	On-peak 9.3¢ Per kWh
Clothes Dryer (1 load)	10¢	18¢	20¢
Clothes Washer (1 load/hot wash)*	34¢	62¢	73¢
Clothes Washer (1 load/cold wash)	5¢	9¢	10¢
Electric Stove (1 family meal)	22¢	40¢	47¢
Dishwasher (1 load)*	16¢	29¢	33¢
AC Central 25 degrees (1 hour)	12¢	22¢	26¢
AC Central 20 degrees (1 hour)	14¢	26¢	30¢

\*Cost of electrical water heating included.

Prices shown here only reflect the electricity or commodity cost on your bill. They do not include delivery, regulatory or other charges as those are based on your consumption or are a fixed cost, and do not reflect the time of use. Electricity prices change every six months. You can visit the Ontario Energy Board at [www.oeb.gov.on.ca](http://www.oeb.gov.on.ca) for current pricing details.



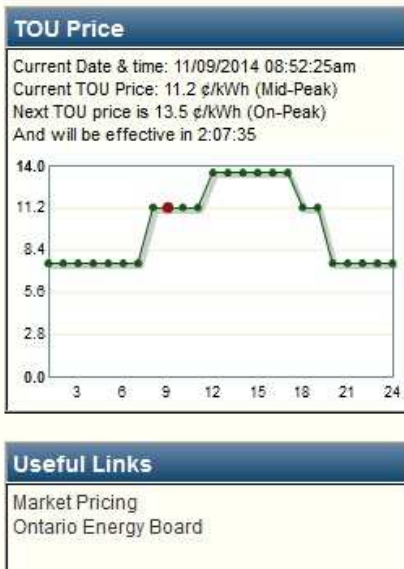
## **Appendix G**

### **Web Presentment – Residential Energy Manager**

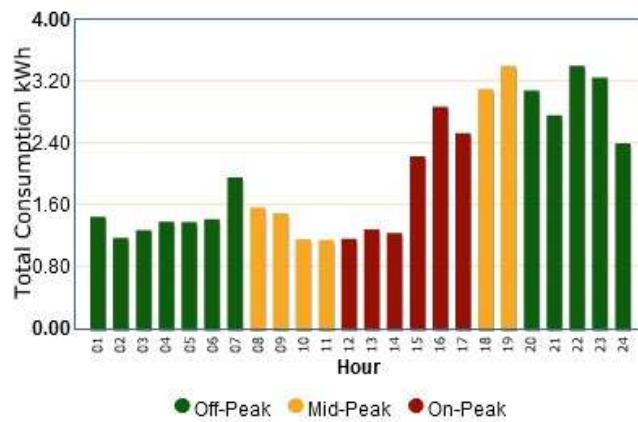


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## Home



Consumption by Hour: 10/09/2014



Time Bucket	Usage	Price	Cost
Off-Peak	24.83 kWh	¢7.50	\$1.86
Mid-Peak	11.82 kWh	¢11.20	\$1.32
On-Peak	11.27 kWh	¢13.50	\$1.52
Totals	47.92 kWh		\$4.71

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### Consumption Report

#### Consumption Report

[Graph](#)  
[Data Table](#)

#### TOU Price

Current Date & time: 11/09/2014 08:58:17am  
 Current TOU Price: 11.2 ¢/kWh (Mid-Peak)  
 Next TOU price is 13.5 ¢/kWh (On-Peak)  
 And will be effective in 2:01:43



#### Useful Links

[Market Pricing](#)  
[Ontario Energy Board](#)

Monthly Read Date:  [What's this?](#) or [Enter Date Range](#)

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Date	Off-Peak	Mid-Peak	On-Peak	kWh
08/2013	906.77	222.11	264.29	1,393.17
09/2013	859.72	194.72	180.00	1,234.44
10/2013	684.18	170.83	151.16	1,006.17
11/2013	662.98	147.94	162.28	973.20
12/2013	767.60	165.83	178.99	1,112.42
01/2014	707.88	174.76	183.84	1,066.48
02/2014	629.21	131.88	143.58	904.67
03/2014	678.40	147.18	155.22	980.80
04/2014	625.62	148.29	159.69	933.60
05/2014	682.91	156.37	148.77	988.05
06/2014	876.01	204.69	211.73	1,292.43
07/2014	1,052.15	257.36	288.13	1,597.64
08/2014	1,145.16	250.93	308.79	1,704.88
09/2014	373.54	95.15	102.05	570.74
Total				15,758.69

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## Consumption Report

### Consumption Report

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### TOU Price

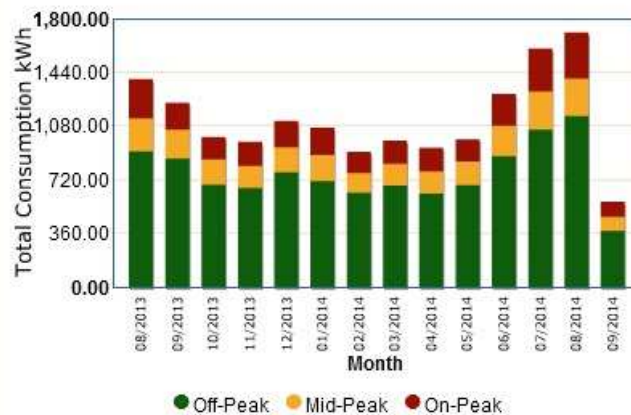
Current Date & time: 11/09/2014 08:56:10am  
 Current TOU Price: 11.2 ¢/kWh (Mid-Peak)  
 Next TOU price is 13.5 ¢/kWh (On-Peak)  
 And will be effective in 2:03:50



### Useful Links

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[Ontario Energy Board](#)

Consumption by Month: 01/08/2013 - 30/09/2014



Total Off-Peak Usage	10,652.13 kWh
Total Mid-Peak Usage	2,468.04 kWh
Total On-Peak Usage	2,638.52 kWh
Total Usage	15,758.69 kWh

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### Cost Overview

#### Cost Report

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[Cost Comparisons](#)  
[Shadow Invoices](#)

Start Date: 01/09/2013

Stop Date: 10/09/2014

[Show Cost](#)

#### TOU Price

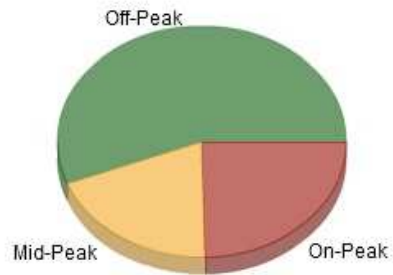
Current Date & time: 11/09/2014 08:59:43am  
 Current TOU Price: 11.2 ¢/kWh (Mid-Peak)  
 Next TOU price is 13.5 ¢/kWh (On-Peak)  
 And will be effective in 2:00:17



#### Useful Links

[Market Pricing](#)  
[Ontario Energy Board](#)

#### Time Of Use Cost



	Usage	Cost
Total Off-Peak Usage	9,743.38 kWh	\$706.19
Total Mid-Peak Usage	2,245.93 kWh	\$245.87
Total On-Peak Usage	2,374.23 kWh	\$310.98
Totals	14,363.54 kWh	\$1,263.04

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### Cost Comparisons

#### Cost Report

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[Shadow Invoices](#)

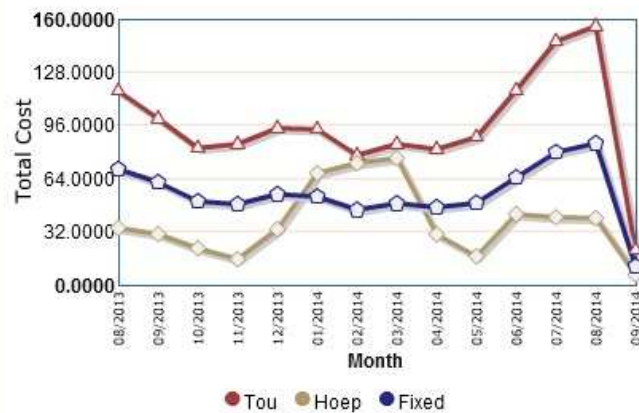
Monthly Billing Date:  [What's this?](#) or [Enter Date Range](#)

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Cost Comparison by Month: 01/08/2013 - 30/09/2014



#### TOU Price

Current Date & time: 11/09/2014 09:01:24am  
 Current TOU Price: 11.2 ¢/kWh (Mid-Peak)  
 Next TOU price is 13.5 ¢/kWh (On-Peak)  
 And will be effective in 1:58:36



#### Useful Links

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Total TOU Cost	\$1,346.42
Total HOEP Cost	\$531.00
Total Fixed Price Cost	\$769.73

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### Shadow Invoices

#### Cost Report

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[Shadow Invoices](#)

Monthly Billing Date: 1 [What's this?](#)

Billing Month: October, 2014

[Show Invoice](#)

#### TOU Price

Current Date & time: 11/09/2014 09:02:44am  
 Current TOU Price: 11.2 ¢/kWh (Mid-Peak)  
 Next TOU price is 13.5 ¢/kWh (On-Peak)  
 And will be effective in 1:57:16



#### Useful Links

[Market Pricing](#)  
[Ontario Energy Board](#)

#### Essex Power Invoice for Account 99999901

**Billing Date: 01/10/2014**

Note: Invoice is a best available estimate up to and including data from 01/09/2014 to 30/09/2014. Billing Energy Includes a Total Loss of 1.000%.

Meter ID	From	To	Usage
EP21803	01/09/2014	30/09/2014	570.74 kWh

Item	Quantity	Cost
Off-Peak	373.54 kWh	\$28.02
Mid-Peak	95.15 kWh	\$10.66
On-Peak	102.05 kWh	\$13.78
Distribution Charges	0.0159 \$/kWh	\$9.07
<b>Total Amount</b>		<b>\$61.52</b>

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### Conservation Cost Savings

#### Energy Savings

[Load Shifting Tool](#)

[Conservation Cost Savings](#)

#### TOU Price

Current Date & time: 11/09/2014 09:18:22am

Current TOU Price: 11.2 ¢/kWh (Mid-Peak)

Next TOU price is 13.5 ¢/kWh (On-Peak)

And will be effective in 1:41:38



#### Useful Links

[Market Pricing](#)

[Ontario Energy Board](#)

Our conservation cost savings tool can help you to assess the energy cost impacts of a conservation initiative, whether it is changing out light bulbs or upgrading old appliances. The tool will calculate approximate savings across actual an actual day and months consumption. It is calculating a general percent savings across all hours.

If you know the specific percent savings you would achieve by your retrofit or your conservation initiative, enter it below. A default value of 5% is already chosen for you. You can type a new value in the box to change it.

Save:

#### Daily consumption and costs:

	Daily Cons.	TOU Cost	HOEP Cost	Fixed Cost
Before saving	55.94 kWh	\$5.70	\$1.51	\$2.80
After saving	53.14 kWh	\$5.41	\$1.43	\$2.66
Savings	2.80 kWh	\$0.28	\$0.08	\$0.14

#### Monthly consumption and costs:

	Daily Cons.	TOU Cost	HOEP Cost	Fixed Cost
Before saving	1,307.70 kWh	\$121.08	\$29.61	\$65.38
After saving	1,242.31 kWh	\$115.03	\$28.13	\$62.12
Savings	65.38 kWh	\$6.05	\$1.48	\$3.27

For more information about energy conservation and what it could mean to you, click [here](#).

## Appendix G



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### Load Shifting Tool

#### Energy Savings

Load Shifting Tool  
Conservation Cost Savings

#### TOU Price

Current Date & time: 11/09/2014 09:07:15am  
Current TOU Price: 11.2 ¢/kWh (Mid-Peak)  
Next TOU price is 13.5 ¢/kWh (On-Peak)  
And will be effective in 1:52:45

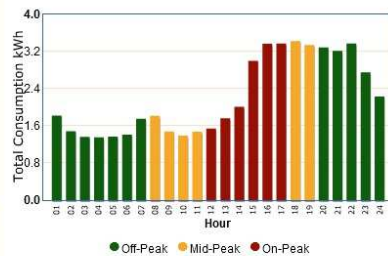


#### Useful Links

Market Pricing  
Ontario Energy Board

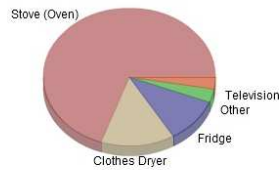
The load shifting tool gives you the means of analyzing your energy consumption and assessing any cost impacts of changes you can make. The first graph is a profile of your typical daily consumption with the hourly bars highlighted according to the time of use bucket it applies to. Below that is the average cost of a typical day and month.

Average Daily Consumption



#### Your Current Average Consumption and Cost

	Avg Daily Usage	Avg Daily Cost	Avg Monthly Cost
Off-Peak	25.30 kWh	\$1.90	\$41.74
Mid-Peak	12.87 kWh	\$1.44	\$31.71
On-Peak	14.99 kWh	\$2.02	\$44.51
Total	53.15 kWh	\$5.36	\$117.96



When considering the energy consumption of a household, appliances account for a large portion of energy usage. The two most energy-consuming home appliances are the refrigerator and the clothes dryer. Although the refrigerator is always on, appliances like the clothes dryer can be used at different times of the day. Using time of use pricing, the load shifting tool allows you to review the impact of moving some of your appliance energy use to other times of the day to see what the impact to your cost will be. Choose an appliance from your profile by clicking the checkbox next to the appliance you want to shift. For comparison purposes, this tool assumes that the appliances you select run during the On-Peak times (when prices are the highest) and are moved to the Off-Peak times (when prices are the lowest).

Shift Consumption		Click <a href="#">here</a> to update Appliance Profile.			
Shift to Off Peak	Appliance	Avg kWh per Month	Off Peak Cost	Mid Peak Cost	On Peak Cost
<input type="checkbox"/>	Stove (Oven)	500.00	\$37.50	\$56.00	\$67.50
<input type="checkbox"/>	Clothes Dryer	100.00	\$7.50	\$11.20	\$13.50
<input type="checkbox"/>	Fridge	75.00	\$5.62	\$8.40	\$10.12
<input type="checkbox"/>	Computer (Monitor & Printer)	20.00	\$1.50	\$2.24	\$2.70
<input type="checkbox"/>	Television	20.00	\$1.50	\$2.24	\$2.70
<input type="checkbox"/>	Dishwasher	13.00	\$0.98	\$1.46	\$1.76
<input type="checkbox"/>	Clothes Washer	5.00	\$0.38	\$0.56	\$0.68
<input type="checkbox"/>	Microwave Oven	5.00	\$0.38	\$0.56	\$0.68
Total Monthly Cost			\$56.35	\$82.68	\$99.63
Shift Consumption		Click <a href="#">here</a> to update Appliance Profile.			

\* THIS TOOL USES TIME OF USE RATES. FOR MORE ANALYSIS OF OTHER TYPES OF PRICING, PLEASE SEE THE COST COMPARISONS TOOL.

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